



Key achievements in Israel

- 2015: The Israeli Centre for Radiotherapy Training launches a 2-year internationally recognised course for cancer specialists.
- 2015: Israel's Secondary Standards Dosimetry Laboratory becomes fully operational, providing dosimetry services for diagnostic imaging.
- 2013: The interactive exhibit on 'Nuclear Reactor Model (Augmented Reality) and Manipulators' goes on display at the Information Centre and Exhibition at the Carasso Science Park.

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.



Radiation therapists learning advanced techniques in a virtual environment treatment room in the Sheba Medical Center in Ramat Gan. In 2015, an IAEA syllabus was adapted and introduced to suit Israel's specific needs. (Photo: Sheba Medical Center)

Recent project successes

Human health

Following the establishment of the National Centre for Radiotherapy Education in Ramat Gan in 2010, a 'train the trainers' course based on the European Society for Radiotherapy and Oncology's core curriculum and an IAEA syllabus was adapted and introduced to suit Israel's specific needs in 2015. Since then, 90 Radiation Therapy Technologists (over half of the country's total) have completed their training at the Centre. The school also organizes monthly education sessions and bi-annual national residency exams for radiation oncologists.

Food and agriculture

Over the years, the IAEA has assisted Israel in combating the Mediterranean fruit fly through an integrated pest management approach, which includes the sterile insect technique (SIT). For this reason, a mass Mediterranean fruit fly rearing and sterilization facility, Bio-Bee, was established in 2004. This enabled Israel to open and expand the export of horticultural products to higher value markets.

Similar technology is now being established for the control of the invasive peach fruit fly with the intention of establishing another facility in the future. As a complement to SIT, the country has also established the capacity for post-harvest treatment protocols (including cold and irradiation treatments).

Further assistance included the establishment of an invasive fruit fly surveillance network at high risk entry points, such as airports, seaports and tourist sites, to effectively detect and respond to incursions of invasive fly species. To this end, the IAEA supported the establishment of MedNip, an interactive database whereby Israel shares pest control data with neighbouring countries. These measures are helping to shield the region from the introduction of further invasive pest species.

Human health

The IAEA supported Israel's efforts to improve their quality management systems for nuclear medicine, radiopharmaceuticals and diagnostic imaging by implementing national audits. Additional assistance has focused on establishing training programmes for medical technicians and physicists to enable continued learning in advanced techniques and to increase the number of qualified staff working in nuclear medicine.

Active national projects

- Promoting Science, Technology, Engineering and Mathematics for Secondary School Students and Engaging the General Public in Nuclear Technology through the Development of a Visitor Centre at the Soreq Nuclear Research Centre (ISR0004)
- Assisting in the Development of a Strategy to Counteract *Bactrocera Zonata* (ISR5021)
- Developing a National Biological Dosimetry Capability – Continuation (ISR6028)
- Improving the Quality Management and Clinical Practice of Medical Imaging (ISR6029)
- Establishing a Master-Level Degree Programme in Medical Physics (ISR6030)
- Developing Knowledge and Capabilities for the Decommissioning of Nuclear Facilities (ISR9013)
- Establishing Criteria and Guidelines for the Site Selection of Nuclear Power Plants – Phase II (ISR9014)

Israel also participates in 18 regional and 3 interregional projects, mostly in the area of food and agriculture, and nuclear knowledge development and management.

Previous IAEA support to Israel

In recent years, the IAEA has focused its support to Israel on improving radiation and nuclear medicine, establishing national biological dosimetry capability, controlling the fruit fly, and enhancing radiation protection.



IAEA support to Israel, 2009–2019



122 trained
(including 50 women)

116 international experts provided

96 attended specialist meetings
(including 56 women)

Priority areas of support

- Supporting the decommissioning of former nuclear facilities and sites
- Improving human health infrastructure
- Supporting agriculture and rural development

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

65 expert and lecturer assignments provided by Israel

39 training course participants

38 fellows or scientific visitors hosted

Based on data available as of April 2020

Strategic documents supported

- Country Programme Framework 2018–2023, signed in September 2017

With support from the IAEA, a scientist from the quarantine laboratory of the Plant Protection and Inspection Services (PPIS) facility at Beit-Dagan, is testing post-harvest treatment techniques necessary for eliminating pests and improving Israel's fruit exports. (Photo: R. Akiva/PPIS)

www.iaea.org/technicalcooperation

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

