Key achievements in Paraguay

- 2018: The first public sector gamma camera (SPECT/CT) for diagnostic imaging becomes operational.
- 2018: Paraguay inaugurates three environmental radiation monitoring stations.

Recent project successes

Food and agriculture

The IAEA assisted in strengthening the skills of technical staff at the Vice Ministry of Livestock to use nuclear techniques for the selection of animals with a genetic resistance to such parasitic infestations, helping to achieve greater food security.

Radiation safety and protection

In 2019, Paraguay inaugurated three environmental monitoring stations to detect and measure levels of radiation in the air, with IAEA support. These stations are the first of their kind in the country and have enabled the Radiological and Nuclear Regulatory Authority to establish a national baseline on naturally occurring radiation. Paraguay can now identify changes in natural radiation levels which is vital for ensuring the radiation protection of the public and the environment.

Human health

A gamma camera for ‘single photon emission computed tomography/computed tomography’ (SPECT/CT) imaging was installed at the Research Institute for Health Sciences (IICS) in Asunción, Paraguay’s only public nuclear medicine service.

The IAEA supported procurement of the equipment as well as training in its use and on the radiation protection of staff and patients. In order to further enhance access to diagnostic imaging services, a module for positron emission tomography (PET) imaging will also be upgraded at the Institute. Once installed, the hybrid imaging equipment will be used to diagnose cancers and to support accurate disease staging and localization for biopsy, surgery and treatment planning.
Active national projects

- Establishing National Capabilities in Irradiation Technologies for the Treatment of Patients with Burns and the Introduction of Mutation Breeding for Enhanced Quality and Productivity of Crops (PAR1005)
- Improving the Conservation of Germplasm of High-Performance Livestock and Native Cattle (PAR5011)
- Strengthening the Infrastructure for Diagnostic and Treatment of Patients with Cancer (PAR6018)
- Strengthening the National Infrastructure for Radiation Safety (PAR9008)
- Strengthening National Infrastructure for Public Radiation Safety (PAR9007)

Paraguay also participates in 45 regional and 3 interregional projects, mostly in the area of food and agriculture.

Previous IAEA support to Paraguay

In collaboration with the Radiological and Nuclear Regulatory Authority, recent IAEA support focused on national nuclear safety infrastructure, food and agriculture, radiotherapy services, nuclear medicine and diagnostic imaging.

IAEA support to Paraguay, 2009–2019

<table>
<thead>
<tr>
<th>Trained</th>
<th>International Experts Provided</th>
<th>Attended Specialist Meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>409</td>
<td>40</td>
<td>114</td>
</tr>
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(including 160 women) (including 56 women)

Priority areas of support

- Enhancing environmental monitoring and protection
- Supporting agriculture and rural development
- Improving human health
- Strengthening nuclear safety and radiation protection

Paraguay’s contribution to South-South and triangular cooperation, 2009–2019

- Expert and lecturer assignments provided by Paraguay
- Training courses hosted
- Fellows or scientific visitors hosted

Based on data available as of April 2020

Cancer control imPACT Reviews conducted: May 2011, September 2016

Paraguay’s National Cancer Institute received an advanced high-dose-rate brachytherapy machine in 2018, essential for the treatment of cervical cancer and other oncological diseases, with support from the IAEA and the Government of Japan. (Photo: INCAN)

www.iaea.org/technicalcooperation

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