## Paraguay

**IAEA Member State since September 1957** 

### **Selected achievements**

**2023:** Cancer control measures in Paraguay are enhanced with a state-of-the-art linear accelerator (linac).

**2023:** A TLD reader to measure individual doses of ionizing radiation improves safety for exposed workers.

## **National priorities**

- Non-destructive testing
- Nuclear safety and radiation protection
- Food and agriculture
- Human health and nutrition
- Management of water resources and the environment
- Energy and industry

## **Main areas of IAEA support**

- National nuclear safety infrastructure
- Food and agriculture
- Radiotherapy services
- Nuclear medicine
- Diagnostic imaging

## **Project successes**

#### **Human health**

The oncology department at the National Cancer Institute (INCAN) received a third linear accelerator (linac) for cancer treatment in May 2023. The linac was officially inaugurated in October and procured with extra-budgetary contributions from the United States of America.

INCAN is the only government entity that is equipped with radiotherapy and brachytherapy facilities, thereby playing a pivotal role in treating non-communicable diseases, particularly cancer.



Paraguay's new Country Programme Framework for the period 2023–2028 is signed in Vienna in May 2023. (Photo: IAEA)

#### **Radiation safety and protection**

With a growing number of activities involving radiation and radioactive sources, regulatory control by Paraguay's National Atomic Energy Commission has heightened. This has led to an increased demand for radiological surveillance and the individual monitoring of workers.

For this reason, the National Atomic Energy Commission received a state-of-the-art TLD reader from the IAEA in 2023.

TLD technology enables the precise measurement of individual worker doses, enhancing protection and safety measures for the workforce in Paraguay.

#### Radiation safety and protection

Following the installation of three environmental monitoring stations to detect and measure levels of radiation in the air, representatives from the Nuclear and Radiological Regulatory Authority (Autoridad Reguladora Radiologica y Nuclear) and the National Atomic Energy Commission (Comisión Nacional de Energía Atómica) participated in two rounds of a 12-month virtual training focused on environmental radiological characteristics.

Conducted by the Universitat Rovira i Virgili in Spain, the training covered natural background radiation, historical nuclear tests fallout, discharges from authorized facilities in Paraguay and neighbouring countries and the potential consequences of nuclear accidents.

The Paraguayan experts are now able to contribute effectively to enhanced public and environmental protection in the country through technical support, interpretation of high-resolution monitoring results, routine reports on the radiological conditions in Paraguay, regulatory surveillance of discharges and early warnings in case of distant nuclear incidents.

# Participation in the major initiatives

• ZODIAC



2024, 2016, 2011



Under the technical cooperation programme, the IAEA has been supporting Paraguay in its efforts to increase access to radiotherapy for cancer patients, including brachytherapy. (Photo: BBC)

#### **IAEA** support received in the 21st century 49 236 **303** 16 women women national fellows and training meeting expert missions **TC** projects scientific visits participants participants received implemented

