## Peru

**IAEA Member State since September 1957** 

### **Selected achievements**

**2022:** The fuel elements of RP10 research reactor are replaced, enhancing nuclear safety.

**2022:** The Peruvian Institute of Nuclear Energy (IPEN) recharges its irradiator, offering irradiation capacities to a wide range of stakeholders.

**2022:** A medium and long term environmental monitoring programme is developed following immediate emergency assistance and technical support provided by the IAEA for the evaluation and management of the environmental impact caused by the oil spill in Ventanilla, El Callao.

## **National priorities**

- Human health and nutrition
- · Radiation safety and nuclear security
- Food and agriculture
- Water resource and environment management
- Monitoring of marine coastal natural and anthropogenic stressors

## **Main areas of IAEA support**

- Paediatric and advance radiotherapy treatment
- Isotope techniques for water assessment in mountain catchments
- Soil-nutrient management for improved pasture production
- RP-10 nuclear research reactor
- National infrastructure for radiation safety

# **Project successes**

#### **Human health and nutrition**

The IAEA has been supporting cancer diagnosis and treatment in Peru by providing training and equipment to Hospitals in Arequipa, Lima, and Amazonas.



These are the third generation of quinoa seeds which were irradiated with gamma rays. The aim of the plant breeding project, which is supported by the IAEA, is to find a quinoa variety which is resistant to disease. (Photo: L. Potterton/IAEA)

Collaborative efforts of the IAEA, the Peruvian Insitute of Nuclear Technology (IPEN), the Ministry of Health, and the Neoplastic Diseases Institute have strengthened national capabilities in cancer treatment.

Key initiatives have included the procurement of digital mammography equipment for "Gustavo Lanatta Lujan" in Amazonas and obtaining an ultrasound system to support gynaecological high dose rate brachytherapy services at "Hospital Goyeneche" in Arequipa.

Expert missions have assessed needs in Lamabyeque, La Libertad, and Loreto. An imPACT review mission 2024 carried out an extensive review of Peru's national cancer control capacities and needs, identifying priority interventions for an effective response to the country's cancer burden.

#### **Food and agriculture**

The IAEA, the National Agrarian University and the National Institute of Agrarian Innovation have collaborated to train local producers and supply the equipment needed for optimal soil nutrient management in the Highland region. This has improved pasture production and resulted in more sustainable livestock production.

Expert missions and training courses have enabled improved crop varieties to be developed using nuclear techniques. This has helped Peru to effectively combat challenges like viruses, late blight and frost.

#### **Marine and coastal environment**

Following the 2022 oil spill in Ventanilla, collaborative initiatives between the IAEA and the Sea Institute of Peru (IMARPE) took place to enhance national capabilities in addressing natural and anthropogenic stressors.

The IAEA has actively been supporting ongoing monitoring and capacity building through its Environment Laboratories in Monaco, contributing to a comprehensive approach for managing and mitigating environmental challenges in the affected region.

# Participation in the major initiatives

- NUTEC Plastics
- Rays of Hope
- ZODIAC



In 2020, Peru received RT-PCR equipment from the IAEA to detect Covid-19. (Photo: National Reference Laboratory for Respiratory Viruses, National Institute of Health (INS) and the Minsitry of Health, Peru)

## **Date of imPACT Review(s)**

2024, 2014

#### **IAEA** support received in the 21st century 98 299 **358** 44 women women national fellows and training meeting expert missions **TC** projects scientific visits participants participants received implemented

