



THE PHILIPPINES: Moving Forward with Nuclear Science and Technology



The Philippines became a Member State of the International Atomic Energy Agency (IAEA) in 1958. The Philippines has been a solid and productive partner in the realization of the Agency's "Atoms for Peace" programme.

At the center of this fruitful cooperation for more than half a century is the Philippine Nuclear Research Institute (PNRI), formerly the Philippine Atomic Energy Commission, a research and development institute (RDI) of the Philippines' Department of Science and Technology (DOST). Together with cooperators from the academe, government and the private sector, PNRI spearheads both the development of nuclear technologies to address the country's needs and the equally important aspect of nuclear regulations, safety and security in harnessing nuclear science and technology.

The Philippines actively participates in the following IAEA programmes:

- Technical Cooperation
 - o National Projects
 - o Regional Projects (Agreement and Non-Agreement)
 - o Interregional Projects
- Coordinated Research
- Nuclear Energy
- Nuclear Safety
- Nuclear Security
- Safeguards



Milestones

- 1958**
 - The Philippines became a Member State of the IAEA.
 - RP-USA Agreement in Atomic Energy was signed.
- 1960**
 - Upon request of the Philippine government, an IAEA mission undertook a study on the prospects of nuclear power in the Philippines.
- 1963**
 - First criticality of Philippine Research Reactor (PRR-1) at 1 MW was attained.
- 1964**
 - Tripartite agreement among India, the Philippines and the IAEA (IPA) on neutron crystal spectrometry was signed and implemented with nuclear scientists in Asia who were trained in nuclear and reactor physics using the PRR-1 as host reactor.
- 1972**
 - The Philippines became a founding member of the Regional Cooperative Agreement for Research, Development and Training Related to Nuclear Science and Technology for Asia and the Pacific (RCA).
 - The IAEA/UNDP - assisted feasibility study for a nuclear power plant in Luzon was undertaken upon request of the Philippine government.
- 1973 to 1986**
 - Philippine Nuclear Power Project was implemented.



The Philippines: Moving Forward With Nuclear Science and Technology

- 1974** • Gen. Florencio A. Medina, Chairman of the National Science Development Board and former Commissioner of the Philippine Atomic Energy Commission (now PNRI), was the first Filipino to be elected as President of the IAEA General Conference.
- 1982** • Ambassador Domingo L. Siazon, Jr., Philippine Ambassador to Austria and permanent representative to the IAEA, was elected President of the 26th IAEA General Conference.
- 1988** • Second criticality of PRR-1 at 2 MW was attained.
- 1989** • The Multipurpose Irradiation Facility at PNRI became operational. This facility was established with financial assistance from the IAEA.
- 1990** • The first Tissue Bank in the Philippines was established.
- 1996** • Dr. William G. Padolina, Secretary of the Department of Science and Technology in the Philippines, was elected the President of the 40th General Conference of the IAEA.
 - The Philippines held the 2nd Philippine Nuclear Congress.
 - The Philippines hosted the 18th RCA National Representatives Meeting.
- 2001** • First medical cyclotron was licensed by PNRI.
- 2005** • The IAEA designated the PNRI as a Collaborating Center on Harmful Algal Blooms Studies
- 2006** • The IAEA chose the PRR-1 as a training platform to demonstrate the decommissioning process techniques under the Research Reactor Decommissioning Demonstration Project (R₂D₂P).
- 2008** • The Philippines hosted the 9th FNCA Ministerial Level Meeting.
 - The MIF was upgraded from a pilot-scale to a semi-commercial facility.
- 2010** • The IAEA designated the Philippines as one of the three pilot countries for the IAEA Water Availability Enhancement Project, or IWAVE.
 - The National Nuclear Security Plan and the IAEA INSSP became operational.
- 2011** • In light of the Fukushima Dai-ichi Nuclear Power Plant Accident, the Member States engaged in an RCA regional project to study the disaster's impact on the marine environment. The data are being compiled in the Asia and Pacific Marine Radioactivity Database (ASPAMARD) managed by the Philippines through PNRI.
- 2012** • The Technetium-99m Generator Facility was commissioned. PNRI Neutron School was established.
- 2013** • Tripartite cooperation of the Philippines with the IAEA and the South African Nuclear Energy Cooperation (NECSA) on the conditioning and storage of Spent High Activity Radioactive Sources (SHARS).
 - The PNRI Nuclear Training Center was accredited by Lufthansa Technik Philippines as NDT Training service provider per European Standard EN 4179.
- 2014** • The PNRI Electron Beam Facility ready for commissioning.

