

STATUS OF IMPLEMENTATION OF 2023 PNRI PROJECTS

As of 8 March 2023

PROJECT TITLE	STATUS	BENEFICIARIES
1. Development of a GAMMA Computed Tomography Imaging Device for Industrial Applications (GAIA)	Ongoing until approval of extension in 2023	a. Energy Development Corporation (EDC) as industry partner b. PNRI c. NIP-UPD (Academe) d. NDT sector
2. Improvement of Mass-Rearing of Dengue Mosquito, <i>Aedes aegypti</i>	Ongoing until December 31, 2025	a. General public
3. Irradiation, Sterilization and Quality Control of Dengue Mosquito, <i>Aedes aegypti</i> , in the Philippines (RC No. 23914)	Ongoing until December 31, 2025	a. General public
4. Improvement of Adlay (<i>Coix lacryma-jobi</i> L.) Through Gamma Irradiation (Phase II)	Ongoing (delayed due to pandemic)	a. Adlay farmers and agricultural sector
5. Phase II of Mutation Breeding of Priority Agricultura Crops: Component 1 - Ornamentals	Ongoing until December 31, 2025	a. Ornamental plant industry and agricultural sector
6. Improvement of Traditional Rice Varieties by Gamma Irradiation	Ongoing until December 31, 2025	a. Rice farmers and agricultural sector
7. Stable Isotopes-Based Evaluation of the Climate Change Mitigation Potential, Recovery Status, and Resilience of Reforested Soils Under the National Greening Program in Selected Critical Watersheds In Luzon (Reforestable Carbon-Plus)	Ongoing until approval of extension in 2023	a. Department of Environment and Natural Resources b. Department of Agriculture c. Climate Change Commission d. People's Organizations e. Local Government Units f. Local Communities g. Academic Institutions
8. Tracing the Geographic Origin of Philippine Carabao Mango Through Chemolotopic Fingerprinting	Ongoing until December 31, 2023	a. Local mango industry b. Researchers c. LGUs d. Academic Institutions
9. Radiation epigenetics in plant mutation breeding: Phase 1 - Bioinformatics and computational tools for phenotype assessment	Ongoing until December 31, 2024	a. Agricultural sector
10. Bioinformatics knowledge systems for radiation biology and zoonosis	Proposed	a. General Public
11. Applications of Cytogenetics Biodosimetry in Determining Radiosensitivity of Cancer Patients and Biomonitoring of Radiation Workers (RC No. 22242)	Ongoing until December 31, 2023	a. Cancer patients b. Radiation oncologists c. Radiation workers d. Radiation protection policy makers/regulatory bodies e. General public f. Emergency planners

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12. Sustainable Food Systems through Radiation Technology: Food Safety and Functionality R&D	Ongoing until December 31, 2026	a. Potential industry takers b. General public c. Academe
13. Electron Beam Processing to Improve Safety and Quality of Insect-Based Food Products and to Promote Earth-Friendly and Nutritious Non-Meat Substitutes (IAEA CRP D61025)	Ongoing until December 31, 2026	a. Potential industry takers b. General public c. Academe
14. Simple Biomedical Research Models for Radiation Injury, Protection and Therapy	Ongoing until December 31, 2024	a. Academe b. RDIs
15. Development of Animal Model for Use in Radiation Research and Establishment of the Radiation Research Center: Core Facility for Radiobiological Research	Ongoing until December 31, 2028	a. Cancer patients b. Patients undergoing radiotherapy c. Radiation and nuclear workers d. Radiation researchers e. Radiation oncologists and other medical practitioners f. Nuclear researchers and research students
16. Evaluation of using a low-intensity neutron beam for neutron radiography - Phase 2	Ongoing until December 31, 2023	a. PNRI b. Academe c. Aerospace d. Nuclear reactor facilities e. National defense f. Electronics industry g. Medical h. Biological research i. Cultural heritage preservation
17. Establishment of the Low-Dose Uniform Neutron Irradiation System (LUNIS)	Ongoing until December 31, 2025	a. Education and Medical Physics Community
18. Development of Column-Packed Adsorbent for Chrome Recovery from Tanning Wastewater	Ongoing until December 31, 2023	a. Tanning industry b. Chrome-utilizing industries c. General public
19. Supporting Cyanotoxin Risk Assessment through Nuclear and Isotopic Techniques for Food Safety and Water Quality Management of Freshwater Lake Systems	Ongoing until November 30, 2024	a. Fisheries industry b. Biotechnology companies c. Government and private water management agencies
20. Direct Comparison of Gamma and Electron Beam Irradiation Effects on Raw Polymer Materials Used and Final Products of Single-Use Catheter Devices (RC No.24422)	Ongoing until June 1, 2026	a. Biomedical Devices Industry b. Radiation Processing Industry c. Scientists/Researchers
21. Assessment of Heavy Metal Concentrations in Manila Bay Sediments	Ongoing until December 31, 2024	a. Environmental Managers/Planners b. General Public
22. Development of Radiation-Processed Products of Carboxymethyl Hyaluronic Acid (CMHA) for Cosmetic and Biomedical Applications	Ongoing until December 31, 2024	a. Pharmaceutical and cosmetic industries b. General public

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23. Enhancing the Use of Analytical, Nuclear, and Irradiation Techniques for Natural Products and Toxin Research	Ongoing until December 31, 2024	a. BFAR-DA as HAB regulatory agency b. Health institutions c. Coconut industry d. General public
24. REHEAL: Radiation-Engineered Hemostatic Agents as Life-Saving Devices - Clinical Investigations of Safety and Efficacy in the Management of Traumatic Bleeding in Hospital Emergency Settings	Ongoing until June 30, 2025 (Tentative)	a. Health Sector b. Defense Sector c. Emergency Response Service Providers d. Healthcare Industry e. General public
25. Enhancing the Beneficial Effects of Radiation Processing in Industry, Energy, Environment, and Cultural Heritage	Ongoing until December 31, 2024	a. Biodiesel manufacturing companies b. Analytical laboratories using SPR c. Agencies involved in cultural heritage preservation
26. Preparation of Crown Ethers and α -aminophosphonates Decorated Natural Fibers-Based Hybrids Metal Ion Adsorbents by Fusing Multicomponent Reaction and Radiation-Grafting of Polymers	Ongoing until December 31, 2023	a. Abaca and pineapple farmers b. Industries involved in metal ion recovery c. Academe d. Philippine government
27. Fabrication of construction materials from recycled plastics by post-radiation reactive extrusion	Ongoing until December 31, 2024	a. Recycling facilities b. Plastic manufacturing companies c. General public
28. PROMT: Philippines Remediation of Mine Tailings (Large Grant)	Ongoing until December 31, 2024	a. Local communities in mining areas b. Mining companies c. LGU and national government d. Academe
29. Micro-scale Continuous Extraction System for the Recovery of Uranium from Philippine Wet Phosphoric Acid	Ongoing until December 31, 2024	a. Philippine government b. Fertilizer/mining/mineral industry c. Public d. Academe
30. Unraveling the History, Origin, Transport, and Distribution of Elevated Levels of Radioactive Iodine-129 in the West Philippine Sea for National Safety and Security	Ongoing until November 30, 2023	a. Coastal population around the WPS b. DENR-BMB (for Marine Biodiversity) c. Nuclear Regulatory Agencies and Department of National Defense of countries around the WPS d. Academe and Research Institutions e. General Public
31. Adulteration Detection and Fingerprinting of Philippine Honey Using Stable Isotopes (Phase 2)	Ongoing until December 31, 2023	a. Honey farmers b. FDA c. DA

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32. Environmental Isotope Investigation of Groundwater in the Abandoned Mercury Mine in Palawan, Philippines (RC No. 24622)	Ongoing until June 30, 2024	a. Puerto Princesa City and Palawan LGU b. Mines and Geosciences Bureau
33. REVIVE PH: Responsible Extraction of Various Valuable Elements in the Philippine Laterite Deposits (Phase I)	Ongoing (until approval of date of completion)	a. Local communities in mining areas b. Mining companies c. LGU and national government; academe
34. Establishment of PRR-1 Subcritical Assembly for Training, Education and Research (SATER)	Ongoing until December 31, 2023	a. PNRI b. Academic and Research Institutions c. Department of Energy
35. Building Capacity for the Safe Operation and Utilization of the Research Reactor's Subcritical Assembly for Training, Education and Research (PHI0016)	Ongoing until December 31, 2023	a. PNRI b. Academic and Research Institutions c. Department of Energy
36. Lab scale demonstration of the effectiveness of electron beam irradiation for the treatment/hygenization of wastewater and sludge from domestic wastewater treatment plant	Ongoing until October 31, 2023	a. Industry (including the water service providers) b. General public
37. Strengthening National Capacity in the Manufacture of Radiopharmaceuticals for Health Care Applications (PHI 6026)	Ongoing until December 31, 2023	a. Hospitals with Nuclear Medicine Department/Section b. Nuclear Medicine Practitioners c. Hospital and Out-Patients d. Commercial Distributors for Nuclear Medicine use