

# LIST OF 2015 PNRI PROJECT BENEFICIARIES

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PROJECT TITLE	BENEFICIARIES
1. The Use of Radon in the Monitoring of the Philippine and Valley Fault System and Its Implication as an Earthquake Precursor	<ul style="list-style-type: none"> <li>• Cities and municipalities transected or close to northern section affected by earthquake</li> </ul>
2. Natural Background Radioactivity Measurements in Southern Palawan	<ul style="list-style-type: none"> <li>• LGU</li> <li>• Local residents of the study area</li> </ul>
3. Development of Filipino Ethnic Foods for Immunocompromised Patients and Calamity Victims	<ul style="list-style-type: none"> <li>• Immunocompromised patients/calamity victims</li> </ul>
4. Development of Sterile Insect Technique for Dengue Mosquito Vector, <i>Aedes aegypti</i> , Using Gamma Irradiation	<ul style="list-style-type: none"> <li>• Communities in urban and suburban areas</li> <li>• Health sector</li> <li>• Researchers/scientists</li> </ul>
5. Third Philippine Nuclear Congress	<ul style="list-style-type: none"> <li>• General public</li> <li>• PNRI stakeholders</li> <li>• Media partners</li> <li>• DOST and other government agencies</li> </ul>
6. Isotope Techniques Application for Groundwater Resources Characterization and Assessment	<ul style="list-style-type: none"> <li>• Water utilities</li> <li>• Water resources regulators/policy makers</li> <li>• LGUs</li> <li>• General public</li> </ul>
7. Transfer of AOAC Accredited Isotope-Based Receptor Assay for Paralytic Shellfish Toxins to Regulatory Setting	<ul style="list-style-type: none"> <li>• BFAR</li> <li>• Fisheries industry</li> <li>• Researchers/scientists</li> <li>• General public</li> </ul>
8. Enhancing Productivity of Locally Underused Crops through Mutated Germplasm and Evaluation of Soil, Nutrient and Water Management Practices	<ul style="list-style-type: none"> <li>• Farmers</li> <li>• Agricultural sector</li> </ul>
9. S&T-Based Soil Nutrient and Water Management for Coffee in the Philippines: Component 1. Efficient Nutrient Management for Enhanced Coffee Productivity through Isotope Tracer and Related Techniques	<ul style="list-style-type: none"> <li>• Farmers</li> <li>• Commercial coffee growers</li> <li>• Researchers and scientists</li> <li>• Research and academic institutions</li> <li>• LGUs</li> <li>• Non-government organizations</li> </ul>
10. Enhancing Agricultural Productivity in Mindanao through Nuclear Technology: Fruit Crops (Mangosteen and Cashew)	<ul style="list-style-type: none"> <li>• Farmers</li> <li>• Agricultural sector</li> <li>• Researchers</li> </ul>
11. Nutrient Dynamics Assessment of Inorganic and Organic Rice-Based Farming Systems in the Pampanga River Basin through Lysimetric and Isotopic Techniques	<ul style="list-style-type: none"> <li>• Backyard farmers</li> <li>• Commercial rice growers</li> <li>• Water managers</li> <li>• Water users associations</li> <li>• Agricultural officers and extensionists</li> <li>• Researchers and scientists</li> <li>• Government agencies</li> <li>• Research and academic institutions</li> <li>• LGUs</li> <li>• Non-government organizations</li> </ul>

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12. Application of Nuclear Analytical Techniques for Efficient Nutrient and Irrigation Management in Corn Production	<ul style="list-style-type: none"> <li>• Backyard farmers</li> <li>• Commercial corn growers</li> <li>• Water managers</li> <li>• Water users associations</li> <li>• Researchers and scientists</li> <li>• Government agencies</li> <li>• Research and academic institutions</li> <li>• LGUs</li> <li>• Non-government organizations</li> </ul>
13. Water Balance and Loss Assessment of the Upper Pampanga River Integrated Irrigation System (UPRIIS) and Magat River Integrated Irrigation System (MARIIS)	<ul style="list-style-type: none"> <li>• Government agencies (NIA, DA-RFUs, LGUs)</li> <li>• Policy makers</li> <li>• Researchers</li> <li>• Engineers and scientists</li> <li>• Academic institutions</li> <li>• Non-government organizations (irrigator's associations, farmers associations)</li> <li>• Private sector</li> </ul>
14. Mutation Breeding of Priority Agricultural Crops: Component 1 - Ornamentals	<ul style="list-style-type: none"> <li>• Researchers</li> <li>• Plant breeders</li> <li>• Ornamental plant growers</li> <li>• Commercial nurseries/farms</li> <li>• Floriculture industry</li> <li>• Hobbyists/private collectors</li> <li>• National and international germplasm collection (genebanks)</li> </ul>
15. Nuclear Techniques and Fertigation to Improve Water and Nutrient-Use Efficiencies of Mungbean (RAS5/0/56)	<ul style="list-style-type: none"> <li>• Backyard farmers</li> <li>• Commercial producers</li> <li>• Water managers</li> <li>• Water users associations</li> <li>• Researchers and scientists</li> <li>• Government agencies</li> <li>• Research and academic institutions</li> <li>• LGUs</li> <li>• Non-government organizations</li> </ul>
16. Improvement of Traditional Rice Varieties by Gamma Irradiation	<ul style="list-style-type: none"> <li>• Farmers and general public</li> </ul>
17. Smart Farming-based Nutrient and Water Management for Rice and Corn Production: Project 2 - Application of Nuclear Analytical Techniques in Improving Nutrient and Irrigation Management in Corn Production Project 3 - Water Balance and Loss Assessment of the Upper Pampanga River Integrated Irrigation System	<ul style="list-style-type: none"> <li>• Backyard farmers</li> <li>• Commercial corn growers</li> <li>• Water managers</li> <li>• Water associations</li> <li>• Researchers and scientists</li> </ul>
18. Smart Farming-based Efficient Nutrient Management to Increase Sugarcane Productivity through Elemental Tracer and Related Techniques	<ul style="list-style-type: none"> <li>• Sugarcane growers</li> <li>• Researchers</li> </ul>
19. Application of Food Irradiation Technologies for Enhancing Food Safety, Quality and Agricultural Trade	<ul style="list-style-type: none"> <li>• General public</li> </ul>

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PROJECT TITLE	BENEFICIARIES
20. Enhancing Cytogenetic Biological Dosimetry Capabilities of the Philippines for Nuclear Incident Preparedness	<ul style="list-style-type: none"> <li>• General public</li> <li>• Radiation workers</li> <li>• Physicians</li> <li>• Regulatory authorities</li> </ul>
21. Effect of Gamma Irradiation on the Quality of Stored Brown Rice Using Different Packaging Materials	<ul style="list-style-type: none"> <li>• Regular consumers</li> <li>• Immunocompromised patients</li> </ul>
22. Development of Novel Biomedical Products Utilizing Gamma and Electron Beam Facility	<ul style="list-style-type: none"> <li>• General public</li> </ul>
23. Promotion and Utilization of Organic Production System and Irradiation Technology in the Production of Safe and Quality Bee Products	<ul style="list-style-type: none"> <li>• Organic farmers</li> <li>• Researchers</li> <li>• Microbiologists</li> </ul>
24. Field Detection System for Saxitoxin: Assay Development and Optimization (Phase II)	<ul style="list-style-type: none"> <li>• Environmental managers</li> <li>• Fisher folks</li> <li>• General public</li> </ul>
25. Electron Beam-Induced Grafting of Abaca/Polyester Nonwoven Fabric and Its Application as Toxic Metal Ion Adsorbent	<ul style="list-style-type: none"> <li>• Abaca and nonwoven fabrics/natural and synthetic fibers industry</li> <li>• Industries generating waste waters contaminated with heavy metals</li> </ul>
26. Hemostatic Agents from Radiation Cross-linked Polysaccharides and Their Derivatives for Military and Surgical Applications	<ul style="list-style-type: none"> <li>• Army</li> <li>• Healthcare providers</li> <li>• General public</li> </ul>
27. Assessing the Applicability of Pb-210 Dating Technique in Selected Mangrove Areas in the Philippines	<ul style="list-style-type: none"> <li>• Environmental managers</li> <li>• Environmental scientists</li> <li>• General public</li> </ul>
28. Sedimentation Rate Determination and Age Dates Calculation Using Pb-210 Dating Method	<ul style="list-style-type: none"> <li>• Environmental managers</li> <li>• General public</li> </ul>
29. Evaluation of the Effects of Radiation-Modified Carrageenan on the Growth and Yield of Mungbean ( <i>Vigna radiata</i> [L.] R. Wilczek) and Peanut ( <i>Arachis hypogaea</i> L.)	<ul style="list-style-type: none"> <li>• Rice farmers and seed growers</li> <li>• Researchers and scientists</li> <li>• Research and academic institutions</li> </ul>
30. Radiation-Induced Grafting of Nonwoven Fabrics for Tanning Industry Wastewater Treatment to Meet Class C Effluent Heavy Metal Standards	<ul style="list-style-type: none"> <li>• Tanning industry</li> <li>• DENR</li> <li>• General public</li> </ul>
31. Capacity Building in the Use and Operation of Small Neutron Sources Phase I (2011–2015)	<ul style="list-style-type: none"> <li>• Academe</li> <li>• Researchers</li> </ul>
32. Characterization of Radiation Damage and Applications of Uranium/Thorium Bearing Heavy Minerals Using Nuclear and Other Related Techniques Phase I (2012–2016)	<ul style="list-style-type: none"> <li>• Mining and minerals industry</li> </ul>
33. Generating Radiological Data from CTBTO Stations in the Philippines: PHP52 and NDC-PH	<ul style="list-style-type: none"> <li>• General Filipino public</li> </ul>
34. Environmental Radioactivity Monitoring in PNRI Grounds and Vicinities	<ul style="list-style-type: none"> <li>• General Filipino public</li> </ul>
35. Radiological Impact Assessment of the Fukushima Nuclear Accident in the Philippine Marine Environment	<ul style="list-style-type: none"> <li>• General public</li> <li>• Environment sector</li> </ul>
36. Radiological Assessment of NORM and TENORM in Construction Materials and Geothermal Industries in the Philippines	<ul style="list-style-type: none"> <li>• General Filipino public</li> </ul>

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37. Establishment of Real-time Environmental Radiation Monitoring System in the Philippines	<ul style="list-style-type: none"> <li>• General public</li> <li>• Environment sector</li> </ul>
38. Determination of Concentration Factor of Cesium-137 in Philippine Green Mussels ( <i>Perna viridis</i> )	<ul style="list-style-type: none"> <li>• General public</li> <li>• Environment sector</li> </ul>
39. Determination of Radon Levels in Dwelling Places in the Philippines and Its Possible Implications to Human Health	<ul style="list-style-type: none"> <li>• General Filipino public</li> </ul>
40. Temporal Variation Profile of the Real-time Environmental Radiation Monitoring System in PNRI	<ul style="list-style-type: none"> <li>• General public</li> <li>• Environment sector</li> </ul>
41. Characterization of the Natural Radioelement Signatures of Porphyry Copper-Gold Deposits in the Philippines by Gamma Ray Spectrometry: Implications to Minerals Exploration Acid	<ul style="list-style-type: none"> <li>• Mining and mineral industries</li> </ul>
42. Comprehensive Extraction of Uranium, Rare Earth Elements and Other Valuable Resources from Wet Phosphoric Acid	<ul style="list-style-type: none"> <li>• Fertilizer industry</li> <li>• Mining and minerals extraction industry</li> <li>• Energy sector</li> </ul>
43. Radon Monitoring of the Valley Fault System and Philippine Fault and Its Implication as an Earthquake Precursor	<ul style="list-style-type: none"> <li>• General public</li> </ul>
44. Enhancing National Capacity for Extraction of Uranium, Rare Earth Elements and Other Useful Commodities from Phosphoric Acid	<ul style="list-style-type: none"> <li>• Fertilizer and extractive industries</li> <li>• Agricultural, environment and health sector</li> </ul>
45. Verification Survey for Radioactive Rare Earth Minerals in Northern Palawan	<ul style="list-style-type: none"> <li>• Mining and minerals industry</li> <li>• Community/settlers health sector</li> <li>• Tourism industry</li> </ul>
46. Program on Development and Applications of Nuclear-Based and Related Analytical Techniques	<ul style="list-style-type: none"> <li>• Industries</li> <li>• Researchers/academe</li> <li>• General public</li> <li>• LGUs</li> </ul>
47. Program on Development and Applications of Isotope Techniques for Hydrological and Environmental Studies	<ul style="list-style-type: none"> <li>• LGUs</li> <li>• Researchers/academe</li> </ul>
48. Air Pollution Source Apportionment	<ul style="list-style-type: none"> <li>• Industries</li> <li>• Researchers/academe</li> <li>• Students</li> <li>• General public</li> <li>• LGUs</li> </ul>
49. Program on Isotope Provenance Studies in Material Origin Identification/Assignment	<ul style="list-style-type: none"> <li>• LGUs</li> <li>• Public</li> <li>• Researchers/academe</li> <li>• Consumers</li> </ul>
50. Building Capacity for the Preparation and Quality Control of Radiopharmaceuticals for Enhanced Nuclear Medicine Application	<ul style="list-style-type: none"> <li>• Nuclear medicine centers and practitioners</li> <li>• Hospital patients</li> </ul>
51. Enhancing National Capacity in Applications of Industrial Radioisotope Techniques	<ul style="list-style-type: none"> <li>• Petroleum and petrochemical industries</li> </ul>
52. Development of Sediment Quality Guidelines in the Philippines	<ul style="list-style-type: none"> <li>• Marine environment sector</li> </ul>
53. Setting Up of One-Stop Shop Laboratory for Global Competitiveness	<ul style="list-style-type: none"> <li>• PNRI employees</li> <li>• DOST agencies</li> </ul>

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PROJECT TITLE	BENEFICIARIES
54. Upgrading of Soil Science and Crop Nutrition Research Laboratory to Enhance Ability to Develop Climate Smart and precision Agriculture Technologies	<ul style="list-style-type: none"><li>• Farmers</li><li>• Researchers</li></ul>

Prepared by:



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