

# LIST OF 2013 PNRI PROJECT BENEFICIARIES

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PROJECT TITLE	BENEFICIARIES
1. Field Detection System for Saxitoxin: A Novel Approach Using the Receptor Binding Assay Technology for In Situ Monitoring of Paralytic Shellfish Toxins	<ul style="list-style-type: none"> <li>• BFAR as regulatory agency</li> <li>• Shellfish industry</li> <li>• General public</li> <li>• Fishing industry</li> </ul>
2. Enhancing Capacity for Industrial Applications of Gamma Scanning Technology	<ul style="list-style-type: none"> <li>• Petroleum, geothermal, petrochemical and water systems industries</li> </ul>
3. Determination of Gross Alpha and Beta Activities in Water	<ul style="list-style-type: none"> <li>• DCWD and its customers</li> </ul>
4. Application of Isotopic and Geochemical Techniques to Uncover Point and Non-point Sources of Organic Nutrient Contamination in the Neritic Zone of Boracay	<ul style="list-style-type: none"> <li>• Researchers</li> <li>• Academe</li> <li>• Regulatory bodies</li> <li>• Industries</li> <li>• Aklan and Malay LGUs</li> <li>• General public</li> </ul>
5. Strengthening the Safety of Workers Occupationally Exposed to Radiation Through OSL	<ul style="list-style-type: none"> <li>• Radiation workers</li> <li>• General public</li> </ul>
6. Determination and Monitoring of Radioactivity-Emitting Nuclides in Designated Fresh Water Sources all over the Philippines	<ul style="list-style-type: none"> <li>• Coca-Cola Bottlers Phils.</li> <li>• FDA</li> </ul>
7. Characterization of Aklan River	<ul style="list-style-type: none"> <li>• Aklan State University academe and researchers</li> <li>• LGUs</li> <li>• Aklan population</li> </ul>
8. 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>
9. Comparative Studies on Biofertilizer Carrier Sterilization through Autoclaving and Gamma Irradiation	<ul style="list-style-type: none"> <li>• Government agencies (DA-RFUs, LGUs)</li> <li>• Biofertilizer mixing plant operators</li> <li>• Academic and research institutions</li> <li>• Private sector</li> </ul>
10. Compatibility of <i>Bactrocera philippinensis</i> and <i>B. occipitalis</i> Sibling Species of Oriental Fruit Fly	<ul style="list-style-type: none"> <li>• Mango growers</li> </ul>
11. Development of Integrated Pest Management Strategies against <i>Brontispa longissima</i> (Gestro), an Invasive Coconut Pest and Other Palm Species: Component 6. Effect of Gamma Irradiation on the Sterility of <i>B. longissima</i> (Gestro)	<ul style="list-style-type: none"> <li>• General public</li> </ul>
12. Development of Sterile Insect Technique for Dengue Mosquito Vector, <i>Aedes aegypti</i> , Using Gamma Irradiation	<ul style="list-style-type: none"> <li>• General public</li> <li>• Health sector</li> </ul>
13. Effects of Biofertilization and N Levels on Nitrogen Nutrition of Grain Cereals	<ul style="list-style-type: none"> <li>• Farmers</li> <li>• Agriculture sector</li> </ul>

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PROJECT TITLE	BENEFICIARIES
14. Enhancing the Agricultural Productivity in Mindanao through Technology: Fruit Crops (Cashew and Mangosteen)	<ul style="list-style-type: none"> <li>• Farmers</li> <li>• Agriculture sector</li> </ul>
15. Enhancing the Agricultural Productivity of Adlai ( <i>Coix lacryma jobi</i> L.) by Nuclear Technique, Soil and Water Management Practices	<ul style="list-style-type: none"> <li>• Farmers</li> <li>• General public</li> </ul>
16. Grain Quality Improvement in Rice ( <i>Oryza sativa</i> L.) Through Induced Mutation Breeding	<ul style="list-style-type: none"> <li>• Farmers</li> <li>• General public</li> </ul>
17. Improvement of Crop Quality and Stress Tolerance for Sustainable Crop Production Using Mutation Techniques and Biotechnology in Mungbean ( <i>Vigna radiata</i> )	<ul style="list-style-type: none"> <li>• Farmers</li> <li>• General public</li> </ul>
18. Mutation Breeding of Priority Agricultural Crops: Component 1. Ornamentals	<ul style="list-style-type: none"> <li>• Ornamental growers</li> <li>• Farmers</li> <li>• Agriculture sector</li> </ul>
19. Nuclear Techniques and Fertigation to Improve Water and Nutrient-Use Efficiencies of Mungbean Mutants	<ul style="list-style-type: none"> <li>• Backyard farmers and commercial 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>
20. Varietal Improvement of Selected Ornamental Crops ( <i>Spathoglottis</i> Orchids, Foliage-type Anthuriums and Hoyas) Through Gamma Irradiation	<ul style="list-style-type: none"> <li>• Researchers</li> <li>• Plant breeders</li> <li>• Ornamental plant growers</li> <li>• Commercial nurseries/farms, floriculture industry</li> <li>• Hobbyists/private collectors</li> <li>• National and international germplasm collection (genebanks)</li> </ul>
21. 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, engineers and scientists</li> <li>• Academic institutions</li> <li>• Non-government organizations (irrigator's associations, farmers association)</li> <li>• Private sector</li> </ul>
22. Capacity Building in the Use and Operation of Small Neutron Sources	<ul style="list-style-type: none"> <li>• Academe</li> <li>• Researchers</li> </ul>
23. Heavy Metals and Radionuclide at the Liquid Solid Interface	<ul style="list-style-type: none"> <li>• General public</li> <li>• Environment sector</li> </ul>
24. Development of Filipino Ethnic Food for Immunocompromised Patients and Calamity Victims	<ul style="list-style-type: none"> <li>• General public</li> </ul>
25. Development of Radiation Sterilized Honey-Wound Dressing	<ul style="list-style-type: none"> <li>• General public</li> </ul>
26. Enhancing Cytogenetic Biological Dosimetry Capabilities of the Philippines for Nuclear Incidence Preparedness	<ul style="list-style-type: none"> <li>• General public</li> <li>• Radiation workers</li> </ul>

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PROJECT TITLE	BENEFICIARIES
27. Food Irradiation: The Use of Gamma Radiation for Shelf-life Extension of Brown Rice	<ul style="list-style-type: none"> <li>• General public</li> <li>• Food companies</li> </ul>
28. Application of Nuclear Based Receptor Binding Assay (RBA) Technology in the Analysis and Risk Assessment of Harmful Algal Blooms (HABs)	<ul style="list-style-type: none"> <li>• Marine fisheries sector</li> </ul>
29. Evaluation of the Effects of Radiation-Modified Carrageenan and Chitosan on the Growth and Yield of Mungbean ( <i>Vigna radiate</i> [L] R. Wilczek and Peanut ( <i>Arachis hypogaea</i> L.)	<ul style="list-style-type: none"> <li>• Agricultural sector</li> <li>• Farmers</li> </ul>
30. Hemostatic Agents from Radiation Cross-Linked Polysaccharides and their Derivatives: Product Development and Efficacy/Safety Evaluation in Animal Model	<ul style="list-style-type: none"> <li>• Health sector</li> <li>• Military</li> <li>• General public</li> </ul>
31. Radiation-Processed Materials from Carrageenan and Chitosan for Agricultural, Health and Environment Applications	<ul style="list-style-type: none"> <li>• Marine industry</li> <li>• Environmental sector</li> <li>• General public</li> </ul>
32. Environmental Radioactivity Monitoring in PNRI Grounds and Vicinities	<ul style="list-style-type: none"> <li>• General public</li> <li>• Environment sector</li> </ul>
33. Management of CTBTO Stations in the Philippines: RN52 and NDC-137	<ul style="list-style-type: none"> <li>• General public</li> <li>• Environment sector</li> </ul>
34. Radiological Assessment of NORM/TENORM in the Philippine Environment	<ul style="list-style-type: none"> <li>• General public</li> <li>• Environment sector</li> </ul>
35. Radiological Impact Assessment of the Fukushima Nuclear Power Accident in the Philippine Marine Environment	<ul style="list-style-type: none"> <li>• General public</li> <li>• Environment sector</li> </ul>
36. Developing PNRI Capability for Electron Beam Technology Applications	<ul style="list-style-type: none"> <li>• Researchers</li> <li>• Academe</li> <li>• Regulatory bodies</li> <li>• Industries</li> <li>• Environmental/agricultural/ medical sectors</li> <li>• General public</li> </ul>
37. Radiotracer and Sealed Sources Applications in Industry	<ul style="list-style-type: none"> <li>• Petrochem, industrial companies</li> </ul>
38. Tc-99m and Tc-99m Radiopharmaceutical Preparation and Quality Control for Nuclear Medicine and Application	<ul style="list-style-type: none"> <li>• Nuclear medicine centers</li> <li>• Patients</li> </ul>
39. 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>
40. Application of Stable Isotopes to the Assessment of Pollution Loading from Various Sources within the Pampanga River Basin into the Manila Bay	<ul style="list-style-type: none"> <li>• Water sector</li> <li>• General public</li> </ul>
41. Applying Isotope Techniques to Groundwater Dynamics and Recharge Rate for Sustainable Groundwater Resource Management	<ul style="list-style-type: none"> <li>• Water sector</li> <li>• General public</li> </ul>
42. Development and Applications of Isotope Techniques for Hydrological Studies	<ul style="list-style-type: none"> <li>• LGUs</li> <li>• Researchers/academe</li> </ul>
43. Food Origin Authentication and Detection of Synthetic Acetic Acid Adulteration in Philippine Vinegar Using Liquid Scintillation Counting and Isotope Ratio-Mass Spectrometry	<ul style="list-style-type: none"> <li>• Nutri-Asia</li> <li>• Vinegar industry</li> <li>• FDA</li> </ul>

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44. Isotope Provenance Studies in Material Origin Identification/Assignment and Environmental Studies	<ul style="list-style-type: none"> <li>• LGUs</li> <li>• Public</li> <li>• Researchers/academe</li> <li>• Consumers</li> </ul>
45. Multi-element and Black Carbon Determination of Air Particulate Samples from Caloocan City	<ul style="list-style-type: none"> <li>• EMB</li> <li>• LGU of Caloocan City</li> <li>• General public</li> <li>• Researchers/academe</li> </ul>
46. Neutron Activation Analysis of Marine Sediment and Rice Samples	<ul style="list-style-type: none"> <li>• LGUs</li> <li>• Public</li> <li>• Researchers/academe</li> </ul>
47. Preparation of In-House Reference Materials for Radioactivity Measurements for PNRI Inter Laboratory Exercises	<ul style="list-style-type: none"> <li>• PNRI</li> <li>• Customers</li> </ul>
48. Characterization of the Natural Radioelement Signatures of Porphyry Copper-Gold Deposits in the Philippines by Gamma Ray Spectrometry: Implications to Minerals Exploration	<ul style="list-style-type: none"> <li>• Mining and minerals industry</li> </ul>
49. Extraction of Uranium from Phosphoric Acid	<ul style="list-style-type: none"> <li>• Fertilizer and extractive industries</li> <li>• Agricultural, environment and health sector</li> </ul>
50. Gamma Ray Spectrometric Survey of the Philippines: The Batanes Group of Islands	<ul style="list-style-type: none"> <li>• Environment</li> <li>• General public</li> </ul>
51. Geochemical and Radiometric Characterization of the Thorium-Rare Earth Sand Deposits in San Vicente, Northern Palawan	<ul style="list-style-type: none"> <li>• Mining and minerals industry</li> <li>• Community settlers</li> <li>• Health sector</li> <li>• Tourism industry</li> </ul>
52. The Use of Radon in the Monitoring of the Philippine Fault (PF) and the Valley Fault System (VFS) and its Implication as an Earthquake Precursor	<ul style="list-style-type: none"> <li>• Major cities and municipalities situated close to the northern section of the PF and VFS</li> <li>• Government agencies responsible for handling disaster management and preparedness programs</li> </ul>

Prepared by:

  
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