

## FY 2016 MAJOR PROGRAMS AND PROJECTS

### KRA 3 - RAPID, INCLUSIVE AND SUSTAINED ECONOMIC GROWTH

DIVISION/OFFICE/UNIT/TITLE OF PROJECTS/ACTIVITIES
<b>PLANNING, MONITORING AND INFORMATION TECHNOLOGY DIVISION (PMITD)</b>
Information and Communication Technology Section
Information and Communication Technology - Audio visual maintenance
Evaluation and Management Services Section
Planning and Project Development Section
Research, Development and Extension Agenda Formulation
Establishment and Operationalization of the Agricultural and Fisheries Mechanization Research, Development and Extension Network (AFMechRDEN)
<b>AGRI-INFRA COORDINATING UNIT (AICU)</b>
Sustainability Program and Provision of Technical Assistance for the Mechanization and Postharvest Facilities / Equipment distributed Nationwide in Support to Rice Mechanization Program
Sustainability Program and Provision of Technical Assistance for the Mechanization and Postharvest Facilities / Equipment distributed Nationwide in Support to Organic Agriculture Program
Sustainability Program and Provision of Technical Assistance for the Mechanization and Postharvest Facilities / Equipment distributed Nationwide in Support to Agricultural Tramline System
<b>APPLIED COMMUNICATION DIVISION (ACD)</b>
<b>CONTINUING PROJECTS</b>
1. Development Support Communication (DSC) for Postharvest / Mechanization Technologies (Rice, Organic Agriculture and Tramline System)
2. Enhancing the Extension Delivery System (EDS) on PH and Mechanization through SCUs and the Techno Gabay Program
3. Strengthening of the PHilMech Scientific Literature Services
4. Media Relations in Support to National PH Mechanization Program
5. Creating General Awareness on PH and Mechanization through the Print, Electronic and Social Media
6. Publishing Journals and Other Technical Publications of PHilMech
7. Process documentation and Packaging of PHilMech Success Stories
8. Development of Easy to Access Information Materials on Postharvest and Mechanization
9. Public Awareness Campaign of PH Technology (Visitors' Bureau)
10. Localized Information Dissemination on Post-harvest and Mechanization at the Regional Level
11. Communication Support for Rice Mechanization Program
12. Broadcast Support for Promotion of Postharvest Technologies and Mechanization among Farmers
13. Policy Advocacy of Institutionalizing the Monitoring and Control of Postharvest Measuring Equipment (Moisture meter, weighing scale and truck scale) used in paddy trading
<b>TECHNOLOGY MANAGEMENT AND TRAINING DIVISION (TMTD)</b>
<b>CONTINUING PROJECTS</b>

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<b>Project 1: Technical Support to Industry Manpower Development on Mechanization and Postharvest Technologies</b>
1.1 Curriculum and Instructional Materials Development
1.2 Provision of Technical Assistance to other Agencies on training-related matters
1.3 Techno-talakayan on PH and Mechanization
1.4 Technical Symposium/Conference on Mechanization & Postharvest Technologies
<b>Project 2: Enhancing the Technical Capability of the Stakeholders on Mechanization and Postharvest Technologies</b>
2.1 Training Course on Mechanization and PH Technologies (HVCC, Rice, Corn other Commodities)
2.2 Training Course in Support to Rice Mechanization Program
2.3 Training Courses in Support to Organic Agriculture
<b>3. Technology Forum/Demonstration of PHilMech Generated Technologies</b>
<b>4. Technical Support to Intellectual Property Rights (IPR) Services</b>
<b>5. PHilMech Industrial Promotion Program</b>
<b>ENTERPRISE DEVELOPMENT DIVISION (EDD)</b>
<b>CONTINUING PROJECTS</b>
1. Provision of Technical Assistance for Postharvest Enterprise Development ( PTAPED)
2. Enhancing Capability of PH and Mechanization Adopters/Investors through the Provision of Business Development Services
3. Building Viable Farmer-Based Coffee Processing Enterprises in Strategic Areas
4. Management and Maintenance of the PHilMech's Postharvest and Agricultural Machineries Information System (an offshoot of the GIS-based Decision Support System and Suitability Mapping Project)
<b>NEW PROJECTS</b>
1. Empowerment of Women as Frontliners in the Development of Rural-Based Enterprises Project 2: Sustainability Plan Towards Coordinated and Effective National and Local Implementation of MCSTD-Based Enterprises ( Great Women 2 Project)
2. Process Documentation in the Establishment of Coconut Water Processing Enterprise in Misamis Oriental
3. Provincial Mechanization Development Plans Updating
4. Establishment of the Agricultural and Fisheries Mechanization Engineering Resource Network (AFMechERN)
5. Development of Selected Rice Processing Centers into Model Agri-Business Enterprises Profitable and Sustained Utilization of Mechanization Interventions" Qualitative Case Studies
<b>AGRICULTURAL MECHANIZATION DIVISION (AMD)</b>
<b>NEW PROJECTS</b>
1. Design and Evaluation of a PTO Driven Cultivator cum Weeder- Fertilizer Applicator for Cassava and Sugar Cane Farms
2. Design and Development of Kitchen Table top Brown Rice Huller
3. Design and Development of a Semi Automated Compact Biomass Furnace
4. Development of Improved Village-level Corn Drying Technologies
5. Development of Computer Vision System for Mango Sorting and Grading
6. Development of Commercial Scale Fully-Automated and Complete Drying Fluidized Bed Dryer System for High Moisture Paddy: Phase IV-Field Testing
<b>PROJECTS TO BE COMPLETED BY 2016</b>
7. Field testing of Improved Drying Technologies for Fermented Cacao Beans
8. Development of Rolling Corn Mill for Village Operation
9. Field Testing of Cassava Harvester
10. Design and Development of Improved Cassava Granulator
11. Design and Development of Probe Meter for Moisture Detection of Selected Grains (Sequel Project: Field Testing of Grain probe Moisture Meter)
12. Field Testing of Impact type – Huller for Brown Rice Milling for Milling and Demand

DIVISION/OFFICE/UNIT/TITLE OF PROJECTS/ACTIVITIES
<b>BIO-PROCESS ENGINEERING DIVISION (BPED)</b>
<b>NEW PROJECTS</b>
1. Thermal Inactivation Kinetics of Spoilage Enzymes and Microbial Load in Mature Coconut Water
2. Formulation and Development of PHilMech Mango Pectin-based Food products
3. Pilot Testing of PHilMech Developed Biodegradable Plastic for Mango Fruit Bag
4. Processing of Onion and Chili Powder using MCSTD/Green House Solar Dryer with Biomass Furnace and Hot Air Drying Methods
<b>ON-GOING PROJECTS</b>
5. Utilization of cashew nut shell for industrial application
6. Utilization of cacao wastes for industrial and commercial applications
7. Development of a pilot scale thermochemical conversion unit for corn residues
<b>PROJECTS TO BE COMPLETED FOR 2016</b>
8. Effect of Gamma Irradiation on the Quality of Stored Brown Rice
9. Development of a pilot scale processing system for the production of pectin from mango peels (Acceptability studies)
<b>SOCIO-ECONOMICS AND POLICY RESEARCH DIVISION (SEPRD)</b>
<b>NEW PROJECTS</b>
1. Program on Determining the Effects of Paddy Postproduction Mechanization to the Postproduction Losses, 2010-2014 (10 projects)
2. Pilot Testing of Coconut Water Processing Enterprise in Selected Areas of the Philippines
3. Market Analysis of Minimally Processed Shallot and Bulb Onion Products and processed Bulb Onions in the Philippines
<b>ON-GOING PROJECTS</b>
4. Policy Study on Institutionalizing the Monitoring and Control of Postharvest Measuring Equipment (moisture meter, weighing scale and truck scale)
5. Pilot testing of postharvest systems in converting sweet potato vines as feeds for livestock (Study 1-3)
6. Pilot testing of cost-reducing and climate-resilient production and postharvest systems for bulb and multiplier onions (Study 1-4)
7. Effects of Using Mechanical transplanter and Combine Harvester on Rice Production in Sto Domingo, Nueva Ecija
<b>FOOD PROTECTION DIVISION (FPD)</b>
Gender and Development (GAD) Program
<b>NEW PROJECTS</b>
1. Non-Chemical Approaches for Managing Postharvest Diseases of Tropical Fruits (Module 5 -Citrus)
2. Effect of chitosan in Managing decay in papaya ( <i>Carica Papaya</i> ) and Tomato ( <i>Solanum lycopersicum</i> ) caused by <i>Rhizopus stoloniper</i> and <i>Mucor piriformis</i>
3. Inactivation of Microbial Pathogens on Mango by Gamma Irradiation
4. Pre-Harvest Treatment of Freckle Disease ( <i>Phyllosticta musarum</i> ) in Organic Banana
5. In-vivo Trials for the Application of Latex Extracts to Control Postharvest Diseases of Tropical Fruits
6. Evaluation of Candidate Entomopathogens and Insect Natural Enemies for the Management of Lepidopterous Insect Pest in Storage
7. Field Treatment Using Microbial CONTROL Agents Against Anthracnose ( <i>Colletotrichum gloeosporioides</i> ) Infecting Mango Fruits
<b>ON-GOING PROJECTS</b>
8. Effect of Ethanol Vapor on the Quality of Treated Tomato
9. Evaluation of Organic Acids and Biological Control Agents against Postharvest Diseases of Onions

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10. Microbiota and Mycotoxin of Cassava
<b>PROJECTS TO BE COMPLETED FOR 2016</b>
11. Toward Integrated use of Biocontrol Agents Against Insect Pest in Storage: Bioecological Studies and Efficacy of Single and Combined use of Selected Biocontrol Agents
12. Epiphytic and Endophytic Microorganisms as Biocontrol Agents of Black Pod of Cacao
13. Molecular identification of Bacterial and Yeast Isolates From Cacao Beans
<b>LABORATORY SERVICES DIVISION (LSD)</b>
<b>NEW PROJECTS</b>
1. Potential of IR Spectroscopy for the Detection of Aflatoxin in Mixed Varieties of Yellow Corn
<b>ON-GOING PROJECTS</b>
2. Provision of Regular Analytical Services
3. Implementation of Quality Assurance Plans in Laboratory Services: Chemistry Laboratory
4. Field Evaluation of Microbial Agents for the Reduction of Aspergillus flavus Population and Aflatoxin Production in Corn
5. Storage Insects Associated with Dried Cacao Beans and its By-Products
6. Cataloguing of Microbial Cultures and Collections
7. Implementation of Quality Control Procedures in Microbiological Laboratory