

**FY 2017 MAJOR PROGRAMS AND PROJECTS**

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

**DIVISION/OFFICE/UNIT/TITLE OF PROJECTS/ACTIVITIES**

<b>PLANNING MANAGEMENT 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, Organic Agriculture Program and Agricultural Tramline System
<b>APPLIED COMMUNICATION DIVISION (ACD)</b>
1. Public Awareness Campaign of Postharvest Technology
2. Strengthening of the PHILMECH Scientific Literature Services (SLS)
3. Communication Support for Rice Mechanization Program
4. Development of Easy to Access Information Materials and Mediated Learning on Postharvest and Mechanization
5. Media Relations in Support to National PH Mechanization Program
6. PHilMech's Visitor's Bureau
7. Creating General Awareness on PH and Mechanization through the Print, Electronic and Social Media
8. Publishing Journals and Other Technical Publications of PHilMech
9. Development Support Communication (DSC) for Postharvest / Mechanization Technologies
10. Process Documentation and Packaging of PHilMech Success Stories
<b>TECHNOLOGY MANAGEMENT AND TRAINING DIVISION</b>
<b>CONTINUING PROJECTS</b>
<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 Mechanization and Postharvest Technologies
1.4. National Technical Conference on Mechanization and Postharvest Technologies aka Technical Symposium/Conference on Mechanization & Postharvest Technologies
1.5. Accreditation and Certification of PHilMech Training Program
1.6. Assessment and Technical Monitoring on the Status of Trained Participants on PostHarvest and
<b>Project 2 : Enhancing the Technical Capability of the Industry Stakeholders on Rice Mechanization and Postharvest Technologies</b>
2.1. Enhancing the Technical Capability of the Industry Stakeholders on Rice Postharvest Technologies and Mechanization
<b>Project 3: Enhancing the Technical Capability of the Industry Stakeholders on Corn &amp; Cassava Mechanization and Postharvest Technologies</b>
3.1. Enhancing the Technical Capability of the Industry Stakeholders on Corn and Cassava Postharvest Technologies and Mechanization
<b>Project 4: Enhancing the Technical Capability of the Industry Stakeholders on Mechanization and Postharvest Technologies and for HVCs</b>
4.1. Enhancing the Technical Capability of the Industry Stakeholders on Postharvest Technologies and Mechanization for HVCs
5. Intensifying the Promotion and Adoption of PHilMech Generated Technologies aka Technology Forum/ Demonstration of PHilMech Generated Technologies
6. Technical Support to Intellectual Property Rights (IPR) Services
7. PHilMech Industrial Promotion Program
<b>ENTERPRISE DEVELOPMENT DIVISION (EDD)</b>

<b>NEW</b>
1. Operationalization of the KOICA RPCS as Rice Processing Enterprises for Farmers Organizations (D:DEFarm)
2. Enhancing Entrepreneurial Capability of Postharvest and Mechanization Adopters/ Investors Through the Provision of Business Development Plan
<b>ON-GOING</b>
1. Building viable farmer-based coffee processing enterprise models in strategic coffee growing areas
2. Intensifying the Promotion and Adoption of PHilMech Generated Technologies
3. Provision of business development services to prospective investors
4. Provision of Technical Assistance to PH enterprise development
5. Development of Selected Rice Processing Centers in to Model Agribusiness Enterprise
6. Process documentation in the establishment of Coconut water processing enterprise in Misamis Oriental
7. Empowerment of Women as Frontliners in the Establishment of Multi-Commodity Solar Tunnel Dryer (MCSTD) based Enterprises in Selected Areas in the Philippines
8. Localized information dissemination on postharvest mechanization at the regional level
<b>AGRICULTURAL MECHANIZATION DIVISION (AMD)</b>
<b>NEW PROJECT</b>
1. Development of CVS for Mango Sorting and Grading
2. Pilot Testing of PHilMech Developed Grain Probe Meter
3. Design and Development of a Cassava Planter
4. Establishment of Rubber Sheet Primary Processing System for Farmers of Kidapawan City, North Cotabato
5. Development of Groundnut Digger/Combine
6. Establishment of Abaca Fiber Primary Processing System for Farmers of North Cotabato
7. Development of Hole Digger for Selected Plantation Crops
8. Development of Mungbean Sheller with Drudgery Reduction for Rural Women
9. Pilot Testing of the Developed Rolling Corn Mill for Village-Level Operation
10. Field Testing of the Improved Cassava Granulator
<b>ON-GOING PROJECTS</b>
1. Development of Commercial Scale Fully-Automated and Complete Drying Fluidized Bed Dryer System for High Moisture Paddy: Phase IV-Field Testing
2. Design and Development of a PTO Driven Cultivator cum Weeder -Fertilizer Applicator for Cassava and Sugar Cane Farms
3. Design and Development of a semi-automated Compact Biomass Furnace
4. Development of Improved Farm-level Corn Drying Technologies
5. Development of hand tractor attachments (harvester and transplanter)
<b>COMPLETED</b>
1. Design and Development of Pre-cleaner and Elevator of the PHilMech Compact Corn Mill
2. Design and Development of Kitchen table Top Brown Rice Huller
3. Performance Evaluation of Greenhouse Solar Dryer with High Light Transmission, UV Protection Polycarbonate Sheets
<b>BIO-PROCESS ENGINEERING DIVISION (BPED)</b>
<b>NEW PROJECT</b>
1. Hydrochar Production from Biomass by hydrochar Carbonization Process
2. Utilization of Sugarcane Crop Waste (Field Trash) for Fuel Briquette and Animal Feed Production
3. Microencapsulation of Moringa Leaf Extracts by Spray Srying for Food and Nutraceutical
4. Stability of Pasteurized Pure and Fruit/Vegetable-Blended Coconut Water During Storage Using Different Packaging Materials
<b>ON-GOING PROJECTS</b>
1. Thermal inactivation Kinetics of spoilage Enzymes and microbial Load in Mature Coconut Water
2. Processing of Onion and Chili Powder using MCSTD/Green House Solar Dryer with Biomass Furnace and Hot Air Drying Methods
3. Formulation and Development of PHilMech Mango Pectin-based Food Products
4. Field Testing of PHilMech Developed Biodegradable Plastic for Mango Fruit Bag
5. Utilization of cashew nut shell for industrial application (Study 2 – Design and Development of CNSL Extractor)
6. Utilization of cacao wastes for industrial and commercial applications (Study 2 - Utilization of cacao pod husk) and (Study 3 - Cellulose acetate from cacao pod husk - chitosan blend as bio-absorbent )
<b>COMPLETED</b>
1. Utilization of cashew nut shell for industrial application (Study 3 - Utilization of de-oiled cashew nuts shell as fuel briquettes)

2. Development of a pilot scale thermochemical conversion unit for corn residues
<b>FOOD PROTECTION DIVISION (FPD)</b>
<b>NEW PROJECT</b>
1. Establishment of Museum for Insects associated with Stored Products
2. Development of an Acoustic Detection Instrument for the Identification and Monitoring of Stored-Grain Insects in the Philippines
<b>ON-GOING PROJECTS</b>
1. 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>
2. Field Treatment Using Microbial Control Agents Against Anthracnose ( <i>Colletotrichum gloeosporioides</i> ) Infecting Mango Fruits
3. Pre-Harvest Treatment of Freckle Disease ( <i>Phyllosticta musarum</i> ) in Organic Banana
<b>COMPLETED</b>
1. Epiphytic and Endophytic Microorganism as Biocontrol Agents of Black Pod ( <i>Phytophthora</i> spp.) of cacao ( <i>Theobroma cacao</i> )
2. Effect of ethanol vapor on the quality of tomato
3. Microbiota and Mycotoxins of Cassava
4. In-vivo Trials for the Application of latex Extracts to Control Postharvest Diseases of Tropical Fruits
5. Inactivation of Microbial Pathogens on Mango by Gamma Irradiation
6. Non-Chemical Approaches for Managing Postharvest Diseases of Tropical Fruits (Module 5 -Citrus)
7. Molecular identification of Bacterial and Yeast isolates from cacao beans
8. Evaluation of Candidate Predator and Parasitoid for the Management of Lipedopterous Insect Pest in Storage
<b>SOCIO-ECONOMIC AND POLICY RESEARCH DIVISION (SEPRD)</b>
<b>NEW PROJECT</b>
1. Impact of the Adoption of Mechanical Rice Transplanter in the Philippines
2. Socio-economic Dimensions of the Adoption and Use of Rice Combine Harvester in the Philippines
<b>ON-GOING PROJECTS</b>
1. Pilot-Testing of Coconut Water Processing Enterprise in Compostela Valley
2. Market Analysis on Processed Onions and Minimally -Processed Onion Products in the Philippines
<b>COMPLETED</b>
1. Policy Advocacy of institutionalizing the monitoring and Control of postharvest measuring equipment used in trading paddy and corn STUDY 1
2. Pilot testing of postharvest systems in converting sweet potato vines as feeds for livestock
3. Laboratory and Field Testing of Onion Seeder
4. Program on Determining Effects of Paddy farm Mechanization to the Postproduction (2010-2014)
5. Pilot testing of cost-reducing and climate-resilient production and postharvest systems for bulb and multiplier onions(Study 1-3)
6. Pilot-testing of Mechanized Onion Planting System Using 10-Row Hand Tractor Driven Mechanical
<b>LABORATORY SERVICES DIVISION (LSD)</b>
<b>NEW</b>
1. Development of Digital Image-Based Cultural-Morphometric Technique for Fungal Species Identification
<b>CONTINUING</b>
1. Implementation of Quality Assurance Plans in LSD: Chemistry Laboratory
2. Provision of Regular Analytical Services
3. Implementation of Quality Control Procedures in Microbiological Laboratory
4. Cataloguing of Fungal Cultures and Collection
5. Development of Cultural-morphometric Fungal Species Identification Technique Using Digital Image-ba
<b>COMPLETED</b>
1. Potential of IR Spectroscopy for the Detection of Aflatoxin in Mixed Varieties of Yellow Corn