

# Republic of the Philippines DEPARTMENT OF AGRICULTURE PHILIPPINE CENTER FOR POSTHARVEST DEVELOPMENT AND MECHANIZATION

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 CERTIFIED www.philmech.gov.ph



# **MAJOR PROGRAMS AND PROJECTS, FY 2024**

# I. REGULAR FUND

# A. Research and Development (R&D)

Division/Title of Programs/Projects/Activities

# AGRICULTURAL MECHANIZATION DIVISION **On-Going Projects** 1. Design and Prototyping Services Unit 2. Enhancing Local Capability to Design, Develop and Manufacture Agricultural Machineries to Accelerate Mechanization of Philippine Agriculture 3. Design and Development of Single Cylinder Gasoline Engine 4. Development of Adlai Grain Moisture Meter 5. Development of Mechanical Green Coffee Bean Sorter Prototype II 6. Modification and Field Testing of the PHilMech-Developed PTO-Driven Cultivator cum Weeder - Fertilizer Applicator for Sugarcane Farms **New Projects** 7. Improvement and Field Testing of PHilMech-Designed Mechanical Hole Digger 8. Design and Development of a Sugarcane De-Trasher and a Sugarcane Whole-Stalk Harvester 9. Improvement and Field Testing of PHilMech Depulper for Different Coffee 10. Improvement and Field Testing of Rice Straw Baling Machine 11. Design Improvement of the CVS-based Mango Sorting Machine for Scaled-up 12. Design Modification of a Village-Scale Coconut Oil Expeller **Completed Projects** 13. PHilMech-KAMICO Collaborative Program - Technology Performance Verification and Adaptation of Mechanize Onion Production System 14. Modification and Performance Evaluation of a Four-Wheel Tractor-Mounted Cassava Planter 15. Development of Portable Moisture Meter for Copra 16. Field Testing of Manually Drawn Onion Seeder

# **BIO-PROCESS ENGINEERING DIVISION**

# **On-Going Projects**

- 17. Development of Biodegradable Fruit Bag for Mango, Cacao, and Banana During the Fruit Development Stage
- 18. Utilization of By-Products and Wastes from Sweet Potato Production for **Industrial Applications**

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# **New Projects**

19. Development of Copra Drying System for Farmer-based Enterprise

# **Completed Projects**

- 20. Development of Vacuum Evaporator and Processing Protocol for Small-Scale Production of Coconut Water Concentrate
- 21. Establishment of Pilot Sugarcane Wastes Silage and Pelleted Feeds Processing Enterprise

# **FOOD PROTECTION DIVISION**

# **On-Going Projects**

- 22. Biobanking of Stored Product Arthropods
- 23. Pesticide Resistance of Stored Product Insect and Mite Pests in the Philippines
- 24. Hazard Assessment on Imported Milled Rice

# **New Projects**

25. Quality Assessment and Management Strategies in Maintaining the Quality and Safety of Dried and Smoked Fish Products in the Philippines

# **Completed Projects**

- 26. Bioactivities of *Cymbopogon citratus* Extracts Against Postharvest Diseases of Mango (Module 1 In-Vitro and Module 2 In-Vivo)
- 27. Anti-Fungal Activities of Citrus Peel Extracts for the Management of Postharvest Disease of Banana (Phase 1: In-vitro; Phase 2: In-vivo)
- 28. Field Efficacy of the Warehouse Pirate Bug *Xylocoris flavipes* (Reuter Hemiptera: Anthocoridae) for the Mannagement of Insect Pests in Storage

# **OFFICE OF THE DIRECTOR**

# **On-Going Projects**

- 29. Gender and Development
- Establishment, Documentation, Implementation and Certification Facilitation of a Quality Management Program through an Integrated Management System IMS: ISO 9001:2015, ISO 14001:2015 and OHSAS 18001:2007
- 31. Operations, Sustainability, National Programs Implementation of the Office of the Directorate for Operations of PHilMech

# PLANNING MANAGEMENT AND INFORMATION TECHNOLOGY DIVISION

# **Continuing**

32. Establishment and Operationalization of the Agri-Fishery Mechanization and Engineering Resource Network (AFMechERN)

# SOCIO-ECONOMIC POLICY RESEARCH DIVISION

#### **On-Going Projects**

- 33. Enhancing the Socio-Economic Viability of Mechanized Rice-based Farming System in the Philippines: RCEP Baseline and Impact Assessment
- 34. Value Chain Improvement of Carabao Mango in the Major Producing Areas in the Philippines
- 35. Establishment of Baseline Information on the Major Coconut Value Chains in

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- 36. Value Chain Improvement of Onion in Major Producing Areas in the Philippines
- 37. Updating the Status of Corn Mechanization in the Philippines

# **New Projects**

- 38. Assessing the Status of Mechanization of Major Vegetables in the Philippines
- 39. Value Chain Improvement of Calamansi in Major Areas in the Philippines

# **LABORATORY SERVICES DIVISION**

# **Continuing Projects**

- 40. Implementation of Quality Assurance Program in LSD: Chemistry Laboratory Section
- 41. Provision of Regular Analytical Services
- 42. Implementation of Quality Assurance in Microbiological Laboratory
- 43. Cataloguing of Microbial Culture Collection

# **New Projects**

44. Wastewater Quality Analysis, Monitoring and Management at PHilMech

# PROJECTS IN SUPPORT OF THE GOVERNMENT'S EFFORTS TO COVID RESPONSE (COLLABORATIVE PROJECTS OF DIFFERENT R&D AND ESETS DIVISIONS OF PHILMECH)

# **Completed Projects**

- 45. Improvement and Integration of Greenhouse Solar Dryer with Biomass Furnace and Multi-Tray Drying Cabinets to the Processing System of Small-scale Agribusiness Enterprises
- 46. Establishment of Pilot Sugarcane Wastes Silage and Pelleted Feeds Processing Enterprise

# B. Extension Support, Education, and Training Services (ESETS)

Division/Title of Programs/Projects/Activities

# **APPLIED COMMUNICATION DIVISION**

# **Continuing Projects/Activities**

- 1. Creating Awareness on Postharvest and Mechanization Through Print and the Audio-visual Media
- 2. Publishing Journals and Other Technical Publications of PHilMech
- 3. Development Support communication on Postharvest and Mechanization
- 4. Public Awareness Campaign on Postharvest Technology
- 5. Strengthening of the PHilMech-Scientific Literature Services
- 6. Development of Easy-to-Access Information Materials on Postharvest and Mechanization
- 7. Process Documentation and Packaging of PHilMech Success Stories
- 8. PHilMech Visitor's Bureau
- 9. Improving Access of Grassroots to Information and Technologies on Postharvest

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#### and Mechanization

# **TECHNOLOGY MANAGEMENT & TRAINING DIVISION**

# **Continuing Projects/Activities**

- 10. Enhancing the Technical Capability of the Industry Stakeholders on Mechanization and Postharvest Technology for High Value Commodities
- 11. Technical Support to Intellectual Property Rights (IPR) Services
- 12. PHilMech Industrial Promotion (PIP)
  - 13. Enhancing the Technical Capability of the Industry Stakeholders on Mechanization and Postharvest Technology for Rice
  - 14. Enhancing the Technical Capability of the Industry Stakeholders on Corn and Cassava Mechanization and Postharvest Technology
  - 15. Intensifying the Promotion and Adoption of PHilMech Generated Technologies aka Technology Forum/ Demonstration of PHilMech Generated Technologies
  - 16. Technical Support to Industry Manpower Development on Mechanization and Postharvest Technology
  - 17. Establishment and Operationalization of the PHilMech Regional Technology Management and Demonstration Center (PRTMDC)

# **ENTERPRISE DEVELOPMENT DIVISION**

# **Continuing Projects/Activities**

- 18. Enhancing Entrepreneurial Capability of Postharvest and Mechanization Adopters/ Investors through the Provision of Business Development Services Cycle 2
- 19. Building Viable Techno-Based Enterprise Models
- 20. Provision of Technical Assistance for Postharvest Enterprise Development Project
- 21. Empowerment of Women as Frontliners in the Establishment of Sustainable Techno-Based Enterprises in selected areas in the Philippines

# C. Locally-funded Projects (LFP)

# **PROGRAM MANAGENENT OFFICE**

# **Continuing Projects/Activities**

1. Establishment of Agricultural and Fisheries Postharvest Facilities

# II. RICE COMPETITIVENESS ENHANCEMENT FUND (RCEF)

Division/Title of Programs/Projects/Activities

# **FACILITY MANAGEMENT AND FIELD OPERATIONS DIVISION**

# **On-going Program**

1. RCEF Mechanization Component/Program

# **APPLIED COMMUNICATION DIVISION**

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# On-going Sub-Program

2. Strategic Communication Services (a.k.a Communication Support for the Rice Mechanization)

# **ENTERPRISE DEVELOPMENT DIVISION**

# **On-going Sub-Program**

3. Enterprise Development and Sustainability Support

# **TECHNOLOGY MANAGEMENT & TRAINING DIVISION**

4. Technical Capability Enhancement

#### III. COCONUT FARMERS AND INDUSTRY DEVELOPMENT PLAN

Division/Title of Programs/Projects/Activities

# **COCONUT TRUST FUND - FIELD MANAGEMENT AND OPERATIONS DIVISION**

# **On-going Project**

1. Program Component 5: Integrated Coconut Processing and Downstream Products (Shared Facilities)

# **APPLIED COMMUNICATION DIVISION**

2. Communication Support for the Establishment of Shared Facilities for the Coconut Farmers and Industry Development Program

# **ENTERPRISE DEVELOPMENT DIVISION**

Project 1: Enterprise Development Support Program (EDSP) for CFIDP-Shared Facilities for Processing (SFPs) / Project 1: Provision of Technical and Support Services on Enterprise Development for CFIDP Shared Facilities for Processing (SFPs) for Coconut Products, Intercrops and Related By-Products

Project 2: Enterprise Development Support Program (EDSP) for CFIDP-Shared Facilities for Processing (SFPs): Enhancement of Entrepreneurial Capability of CFIDP Shared Facilities for Processing (SFPs) Recipients

Project 3: Enterprise Development Support Program (EDSP) for CFIDP-Shared Facilities for Processing (SFPs): Establishment of Sustainable Enterprises for CFIDP Shared Facilities for Processing (SFPs)

# **TECHNOLOGY MANAGEMENT & TRAINING DIVISION**

Training Support to the Implementation of Integrated Coconut Processing and Downstream Products or Shared Facilities

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