



CONSORTIUM 3rd QUARTER REPORT

(July-September 2022)



R & D Management and Coordination



111th RRDCC MEETING

held on July 19, 2022

- Attended by 29 participants composed of Head and/or Representative of Consortium Member Institutions (CMIs) together with the Secretariat;
- Three (3) resolutions were passed and approved

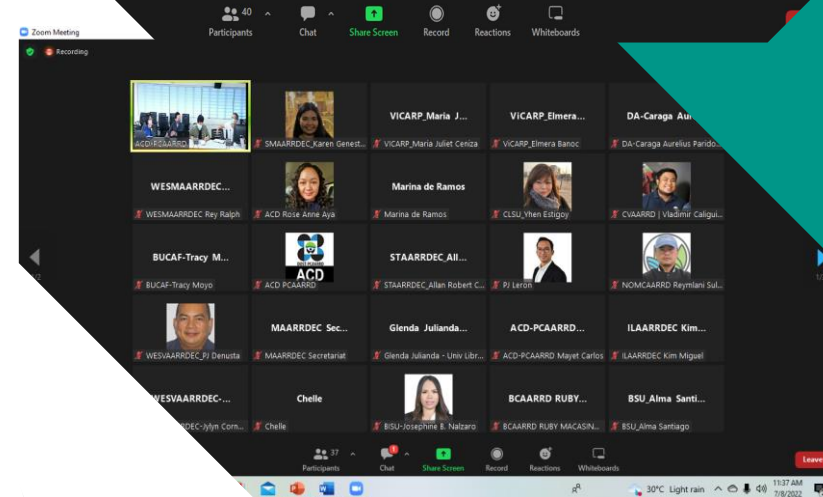


PCAARRD RSCC & ICTC MEETING

held on July 8, 2022

- Attended by Regional Science Communication Cluster Coordinator Ms. Karen B. Geneston and ICT Cluster Coordinator Engr. Rey De Leon
- *Briefed on the RSCC Term of Reference; plans and programs for the science communication in the region including resources available to the RSCC's and consortium member institutions*

DOST-PCAARRD eLIBRARY ORIENTATION & UPDATES Friday, 08 July 2022 via Zoom



CHED-IKSM-MMSU Monitoring Team visit at Talaingod for AGAK Project

held on July 7-9, 2022

- Participated by AGAK Project Team/SMAARRDEC Secretariat
- Off-shoot of which is the approval of project implementation until December 31, 2022



Techno-Gabay Program Midyear Assessment

held on July 26, 2022 at Davao Oriental

- Attended by TT Cluster Coordinator Evelyn Gecale
- Agreed to revitalize partnership of ATI with SUCS



Hosting of PHILARM BOD Mtg and National Planning Workshop

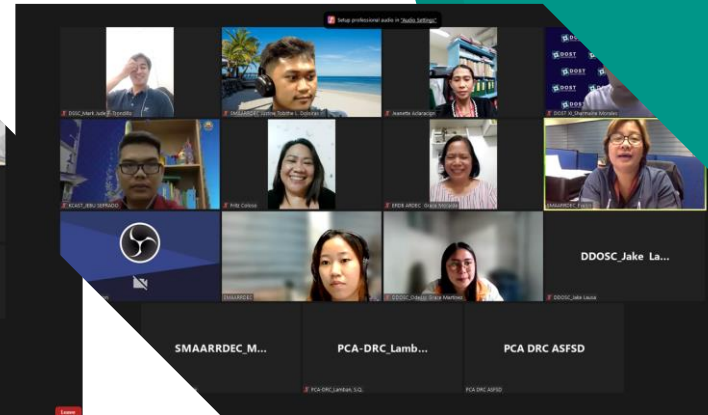
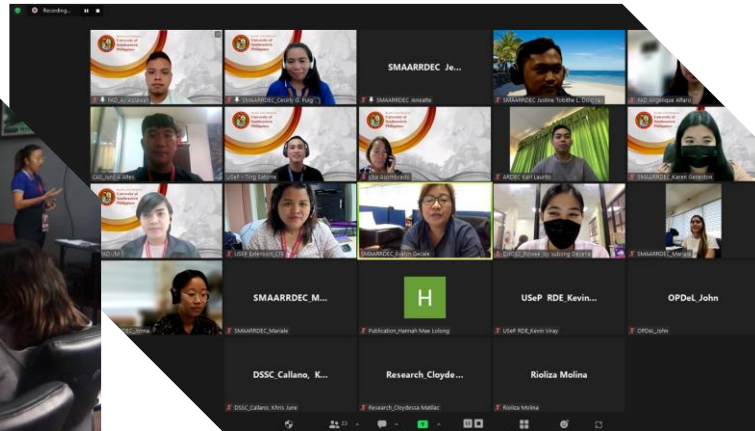
held on August 12-13, 2022 @ DORSU

- Hosted by DORSU through Dr. Misael B. Clapano the newly-elected President for Southern Mindanao Cluster (Regions 11, 12 & Caraga)



held on August 1 & 11, 2022

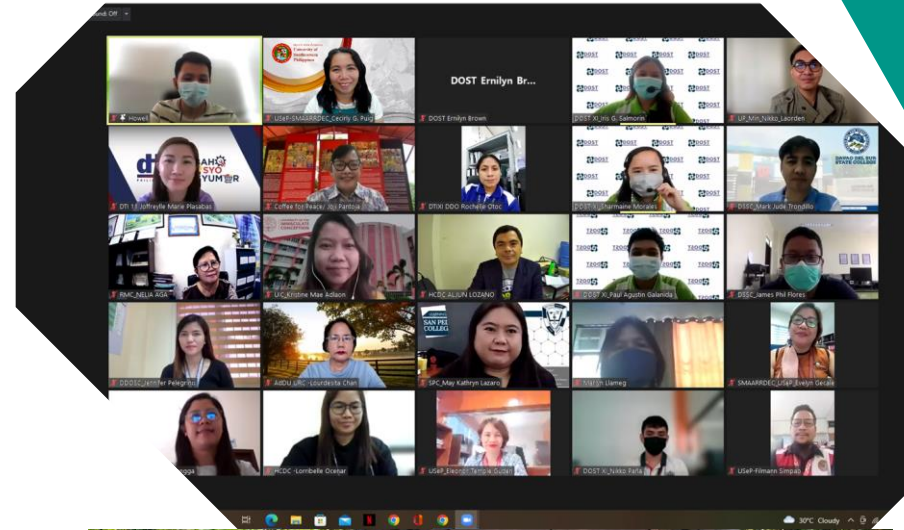
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ISTRIKE Meeting with Industry

held on August 23-24, 2022

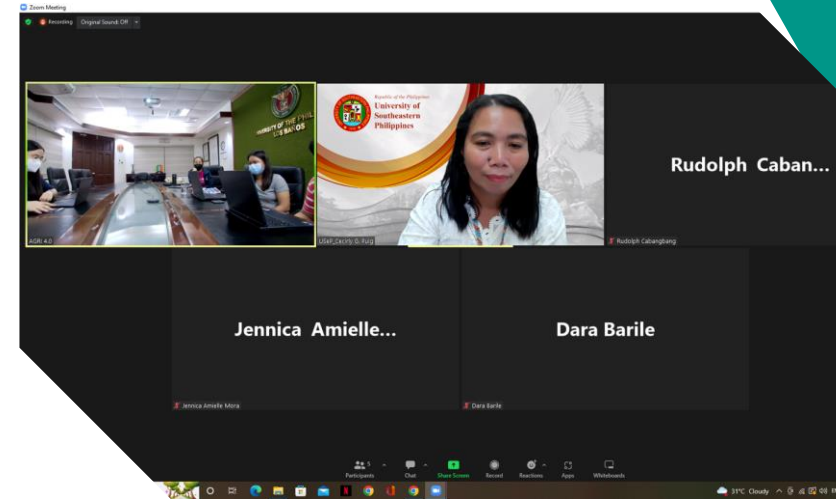
- Initiated by DOST XI, the meeting was called for the orientation of academe and industry on the opportunity to collaborate through S4CProjects – CRADLE
- Offshoot of which are:
 - > presentation of Dr. Agudera (DSSC) about his study on *Beauveria bassiana* in the management of cacao pod borer
 - > gathering of list of completed projects on cacao to be disseminated to cacao industry members
 - > farm tour at Gran Verde Farms in Calinan with DOST XI, DTI XI, and researchers from DdOSC, DSSC and USeP on September 14, 2022



Agri 4.0 Project Meeting

held on August 30, 2022

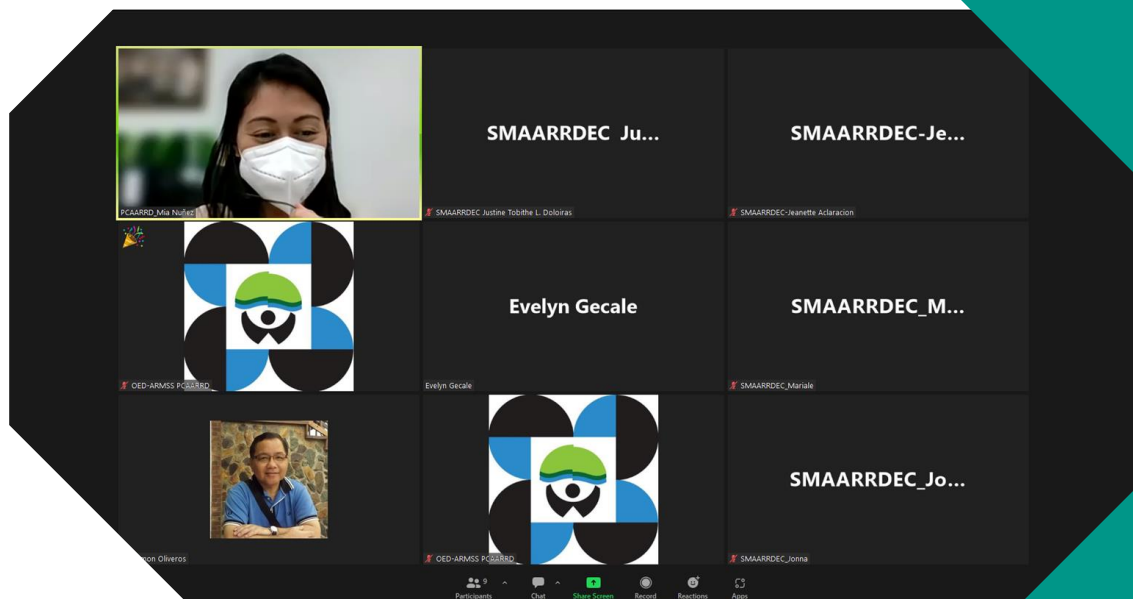
- Represented by R&D Cluster Coordinator Dr. Cecirly G. Puig
- Sought assistance in the implementation of UPLB-led project Agriculture 4.0 Readiness among Philippine Research and Development Organizations



Coordination Meeting for Financial Management Seminar cum Orientation of the 2023 Regional Collaborative Program (RCP) Guidelines in November 2022

held on August 31, 2022

- Attended by SMAARRDEC Secretariat and PCAARRD-COO Staff
- SMAARRDEC to host the Orientation with other 4 consortia in Mindanao



Knowledge Management and Technology Generation



Presentation of the proposed “Lidar-Based Online for Fusarium Reconnaissance and Disease Prediction System”

held on August 12, 2022 @ USeP-RDE Conf Room

- Presented by R&D Cluster Coor & Proponent Dr. Cecirly G. Puig
- Attended by DA-RED Abel James I Monteagudo and RTD Andy Alemania, DA-Research Dir Melanie Provido and Research Staff Ms. Anecita Telabangco; USeP-VPRDE Shirley S. Villanueva and SMAARRDEC TTC Coor Evelyn A. Gecale
- Result of which is an Endorsement from the RRDEN to DA-BAR for possible funding amounting to Php 51M



Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/ Budget
Coastal Resources of Davao del Norte as Basis for GIS-Based Assessment and Monitoring (Phase I)	Davao del Norte State College	DNSC/ 124685.8
Study 1: Species Diversity, Abundance, and Geographic Distribution of Mangroves Species Panabo Mangrove Park, Davao del Norte		
Coastal Resources of Davao del Norte as Basis for GIS-Based Assessment and Monitoring (Phase I)	Davao del Norte State College	DNSC/ 75000
Study 2: Taxonomy and Diversity of Brachyuran Fauna of Panabo Mangrove Park, with Notes on Distribution and Conservation		
Coastal Resources of Davao del Norte as Basis for GIS-Based Assessment and Monitoring (Phase I)	Davao del Norte State College	DNSC/ 75000
Study 3: Distributional Data and Fish Landing Areas in Panabo City, Davao del Norte		
Nutrient Characterization of Modified Rice-Mongo Extruded Snack	Davao del Norte State College	DNSC/ 30000
Native Flora of Sitio Salawao, Sto. Niño, Talaingod: Phase 1	Davao del Norte State College	DNSC/ 12850



Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/Budget
GIS for Davao del Norte IP-populated Hinterlands (Ancestral Domain) Project 1: Evaluating Potential Eco-Tourism Sites of the Ancestral Domains in the Province of Davao del Norte: A Geo-Spatial Mapping	Davao del Norte State College	DNSC/ 45,000.00
GIS for Davao del Norte IP-populated Hinterlands (Ancestral Domain) Project 2: Geospatial Mapping of Ancestral Domain Agricultural Resources in the Municipality of Talaingod	Davao del Norte State College	DNSC/ 35,000.00
GIS for Davao del Norte IP-populated Hinterlands (Ancestral Domain) Project 3: Risk Mapping of Malnutrition Distribution using Geographic Information System in the Municipality of Talaingod, Davao Del Norte	Davao del Norte State College	DNSC/ 20,000.00
Development of Online Repository of Coastal Resources	Davao del Norte State College	DNSC/ 40,000.00
Indigenous Knowledge and Practices during El Niño & La Niña: Lessons from Ata Manobo in Talaingod, Davao del Norte	Davao del Norte State College	DNSC/ 68,440.00



Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/Budget
Social Vulnerability Assessment of Flood-prone Communities in Carmen, Davao del Norte	Davao del Norte State College	DNSC/ 60,000.00
Community Resilience during Covid-19 Pandemic: Lessons and Insights from the Ata Manobo of Talaingod, Davao del Norte	Davao del Norte State College	28,685.00
Indigeneity as Tourism Capital: Food, Foodways, and Foodscapes of Ata Manobo in Davao del Norte	Davao del Norte State College	25,000.00
Agri-Tourism Entrepreneurship as an Emerging Industry in Ancestral Domains: The Case of an IP Community in Davao del Norte	Davao del Norte State College	25,000.00
Halal Tourism in Davao Region: Promises and Pitfalls	Davao del Norte State College	43,000.00
Gerontology in IP Community: Aging and Social Care among Ata-Manobo of Talaingod, Davao Del Norte	Davao del Norte State College	40,000.00
Agroforestry Education Campaign for Sustainable Development in Sitio Salawao, Sto. Nino, Talaingod Municipality, Davao del Norte	Davao del Norte State College	DNSC/75,000
Product Development of Vacuum Fried Tuna Skin	Davao del Norte State College	DOST-PCAARRD/ 5,000,000.00
Food Safety for Food Entrepreneurs: Good Manufacturing Practices Workshop	Davao del Norte State College	35,000.00

Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/Budget
Malnutrition Reduction Initiatives in Davao del Norte State College through the Complementary Foods (DOST PINOY Products)	Davao del Norte State College	DNSC/ 40,000.00
Biodiversity Museum: Linking Biodiversity to Stakeholders Year 3	Davao del Norte State College	DNSC/ 95,000.00
Taklobo Tours Sustainability Phase	Davao del Norte State College	
PHASE 2 - USWAG TRIBO: Empowering IP Community through Social Preparation, Health Literacy and Livelihood Development Programs	Davao del Norte State College	DNSC
Inclusive Community Advancement through Responsive Extension (i-CARE)	Davao del Norte State College	DNSC/ 100,000.00
PROJECT RESILE Phase 2 (Rehabilitation, Education and Scientific Interventions to Live with Floods) in the Flood-prone Communities of Carmen, Davao del Norte	Davao del Norte State College	DNSC/100,000.00
Sustainable Livelihood Development Project for Rebel-Returnees	Davao del Norte State College	DNSC/ 53,000.00
Project 1-C: Enhancing IP-TBM in Davao del Norte State College through RAISE	Davao del Norte State College	DOST PCAARRD/ 1,572,423

Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/Budget
Mungbean (<i>Vigna radiata</i> L.) Production in POGSAGBUKA Community Based Farm of Sitio Salawao, Talaingod Davao del Norte	Davao del Norte State College	DNSC/ 448,743.04
Laboratory Analysis of Water Parameters	Davao del Norte State College	DNSC/ 250,000.00
Community Empowerment through Science and Technology (CEST) Program for the Geographically Isolated and Disadvantaged Areas (GIDAs) and Marginalized Communities in Davao del Norte	Davao del Norte State College	DOST/ 18,424,825
Assessment of Various Rubber-Based Cropping Systems For Enhanced Production of Smallholder Rubber Farmers in Different Climatic Types of the Philippines	Philippine Rubber Research Institute	DOST-PCAARRD
Becoming Aware, Knowing the Archaic Source	Davao del Sur State College	DSSC/ 50,000
Adopt a Learner	Davao del Sur State College	DSSC/ 50,000
Helping Barangays Adopt the Community-based Monitoring System	Davao del Sur State College	DSSC/ 100,000
Assessment of fishery resources in selected MPAs in Santa Cruz Davao del Sur	Davao del Sur State College	DSSC/ 100,000



Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/Budget
Bio-efficacy of Liquid Trichoderma (LT) against Fusarium Wilt Disease of Banana under Field Condition	Davao del Sur State College	100,000
Establishment of Baseline Data for Management Planning of Plastic Waste Pollution in Digos City, Davao del Sur.	Davao del Sur State College	52,000
S and T Based Vegetable Production: Enhanced Food Security And Improved Livelihood through Sustainable Vegetable Production in Davao del Sur	Davao del Sur State College	DA/ 4,000,000
Project 6D. Enhancing Technology Transfer through IP-TBM in Davao del Sur State College (DSSC)	Davao del Sur State College	SMAARRDEC/ 1,686,966
Reproductive Biology, Dietary Analysis, and Life-History of Philippine Tuna species towards Sustainable Fishing Industry in Mindanao	Davao del Sur State College	MSU-GSC/57,000
Coffee as a way to Create Livelihood, Fight Poverty and climate Change	Davao del Sur State College	2,000,000/ BATAFAMA
Upscaling Bamboo Rural Enterprise and Development Project in Davao del Sur	Davao del Sur State College	20,000,000.00/ DA
Enhancing the Delivery of Agricultural Information Services and Promotion of Farm Clustering and Consolidation Through the Establishment of Community Radio Station	Davao del Sur State College	3,600,000.00/ DA



Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/Budget
Province-led Agriculture and Fisheries Extension Systems (PAFES)	Davao del Sur State College	DA / 1,000,000
Promoting Food Resiliency in Communities in Partnership with State Universities and Colleges: DARRDEN Collaborative Project	Davao del Sur State College	DSSC
Economic Comparative Analysis of Different production Techniques for Seaweeds	Davao del Sur State College	DSSC/ 100,000
Mentoring the Parents: Amplifying Parental Involvement towards Learning (APIL)	Davao del Sur State College	DSSC/ 50,000.00
Phytochemical and Antioxidant Activities of Coffee Leaf extracts From Digos City	Davao del Sur State College	DSSC/ 100,000
Diversity of neglected and Under utilized crop species of Davao del Sur	Davao del Sur State College	DSSC/ 100,000.00
Flexible Learning Stressors and Coping Strategies of Students in the Higher Educational Institutions (HEIs) of Davao del Sur	Davao del Sur State College	DSSC/ 50,000
Community Empowerment Program	Davao del Sur State College	DSSC/ 100,000
Development and Testing of Seaweed-Based Bio-Stimulant Breads	Davao del Sur State College	DSSC/ 100,000
Coffee Table Book of Birds in Mount Apo	Davao del Sur State College	DSSC/ 35,000



Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/Budget
Collection, Conservation, Characterization, Evaluation and Utilization of Bananas and Plantains	Bureau of Plant Industry	Bureau of Plant Industry/ 404000
Collection, Conservation, Characterization and Utilization of Fruit Germplasm	Bureau of Plant Industry	Bureau of Plant Industry/ 404,000
Collection, Conservation, Characterization and Utilization of Cacao and Coffee	Bureau of Plant Industry	Bureau of Plant Industry/ 370,000
Collection, Conservation, Characterization and Utilization of Different Indigenous Vegetables, Herbs and Spices	Bureau of Plant Industry	Bureau of Plant Industry/ 350,000
Collection, Conservation, and Utilization of NSIC-Registered Varieties of Cassava	Bureau of Plant Industry	Bureau of Plant Industry/ 350,000
Utilization of Leaves of Different types of Banana into Packaging Materials	Bureau of Plant Industry	Bureau of Plant Industry/ 260,000
Surveillance and Molecular Detection of Viral Pathogens Associated Thrips Vector on Pummelo and Mangosteen in Mindanao	Bureau of Plant Industry	DA-BAR/ 3,595,740
Bio-enriched Spent Mushroom Substrate (SMS) of Pleurotus as Potential Control against Fusarium Wilt on Cavendish Banana (Fusarium oxysporum f. sp. cubense) TR4	Bureau of Plant Industry	Bureau of Plant Industry/ 1,119,088
Evaluation of different commercial organic foliar fertilizers on the growth performance of pummelo	Bureau of Plant Industry	Bureau of Plant Industry/ 260,000
Mindanao Cattle Research and Development Project	University of the Philippines Mindanao	DA-RFO XI / 5,326,000



Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/Budget
Hort/2015/042 Development of Area-Wide Management Approaches for Fruit Flies in Mango for Indonesia, Philippines, Australia and the Asia-Pacific	University of the Philippines Mindanao	ACIAR/ 2056976.38
Developing the Capability of Micro- and Small-Scale Processors in the Manufacture of Quality Food Products from Philippine Cocoa Beans: Study 3: Determination of Sensory Properties of Davao-Produced Dried Cocoa Beans and Tablea	University of the Philippines Mindanao	DOST-PCIERD/
Annotated Compendium of Gender and Development Research in Agriculture, Aquatic, and Natural Resources (AANR): Towards developing the AANR Gender and Development Research and Development Agenda and Framework	University of the Philippines Mindanao	DOST-PCAARRD/ 5,000,000
Assessing the desirability, feasibility and viability of expanding brackish water tilapia production towards developing an effective business model	University of the Philippines Mindanao	DOST-PCAARRD/ 5,000,000
Activity Budget and Diet Composition of Philippine Long-Tailed Macaques (<i>Macaca fascicularis philippensis</i>) in Human-Modified Landscapes of Hindang, Leyte, and Makilala, North Cotabato, Philippines	University of the Philippines Mindanao	DOST-NRCP/ 3,254,299.96



Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/Budget
Project 1. Population genomics and species diversity of reef fishes between Sulu and Celebes Seas biogeographic regions	University of the Philippines Mindanao	ACIAR/ 15,785,093
Project 2. Information System for Marine Fishery Morphology and DNA Sequence in Mindanao	University of the Philippines Mindanao	DOST-PCIERD/ 29,546,671
Harmonized Aerial Watch and Knowledge-based Survey (HAWKS)	University of the Philippines Mindanao	DOST-PCAARRD/ 5,882,088
Cost-effective Technology for Monitoring and Quantifying Benthic Area Covered by Marine Litter in Shallow Coastal Areas	University of the Philippines Mindanao	DOST-PCAARRD/ 5,882,088
Integrated Wastewater-Based Epidemiology and Data Analytics for Community-Level Pathogen Surveillance and Genetic Tracking: Proof-of-Concept	University of the Philippines Mindanao	DOST-NRCP/ 11,726,712
Vulnerability Assessment Tool: A Decision Support System for Pre-Emptive Preparedness on Emerging Infections Among Animal Reservoir in Urban Green Spaces	University of the Philippines Mindanao	DOST-PCHRD/ 23,254,933.24
Predictive Modeling and Viral Phylodynamic Analysis on the Spatial and Temporal Patterns of Disease Outbreaks with considerations for Control and Logistics (PPASTOL) applied in Mindanao region	University of the Philippines Mindanao	DOST;DOST-PCHRD/ 22,023,350.78



Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/Budget
Risk Management and Enhanced Survivability Analysis Integrated through Longitudinal Infectious Disease Data and Statistical Epidemiological Model using Clinical Risk Factors (RESILIMC)	University of the Philippines Mindanao	DOST;DOST-PCHRD/8,475,824
Automated Labeling Machine – Large Scale Initiative (ALaM-LSI)	University of the Philippines Mindanao	DOST-PCIEERD/48,310,532.16
Phytological Control of Cogon (<i>Imperata cylindrica</i> (L.) Beauv) Using Clones Applied with Biofertilizer and Combination of NPK and Vermicast in Degraded Ancestral Domain Area,Talaingod, Davao del Norte	DENR-ERDB-ARDEC	ERDB/ 4, 304,800
Valuation of Ecosystem Services in a Community-Based Forest Management Agroforestry (CBFM A/F) Area in Baranga Bantol, Marilog Dist., Davao City	DENR-ERDB-ARDEC	MGB/2,650,764
Phytostabilization of Mercury Contaminated Areas Using Forest Tree Species with Heavy Metal Accumulation Potential Within the Pit Lake of Sta. Lourdes, Puerto Princesa, Palawan	DENR-ERDB-ARDEC	MGB/ 3,915,893
Phytoremediation for Mercury Contaminated Water in Abandoned Open Pit in Sta. Lourdes, Puerto Princesa City	DENR-ERDB-ARDEC	MGB/ 2,455,683



Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/Budget
Design and Improvement of Adlai (Coix lacryma jobi L) Milling Machine	SPAMAST	SPAMAST GAA/ 50000
Social Support and Quality of Worklife among COVID19 Frontline Workers: The Mediating Effect of Health and Safety	SPAMAST	SPAMAST GAA/ 30000/
Resilient Social Work Practice: From the Experiences of Filipino Social Workers	SPAMAST	SPAMAST GAA/30,000.00
A Version of Creamy Buko Pie with Peanut and Raisins: Shelf Life and Consumers' Acceptability	SPAMAST	SPAMAST GAA/ 38,000.00
Supply-Chain of ADLAI in Davao Region	SPAMAST	SPAMAST GAA/35,000.00
Assessment of Species of Mud Crab (Scylla spp.) Stocks in Mangrove Areas in Davao Occidental	SPAMAST	SPAMAST GAA/ 20,000.00
Primary Productivity in Nearby Coastal Water of Coal Powerplant	SPAMAST	SPAMAST GAA/35,595.00
Effects of Fish Cages on Water Quality in Sta. Maria, Davao Occidental	SPAMAST	SPAMAST GAA/50,000.00
Challenges and Lessons Learned in the Implementation of Government Policies during COVID 19 Pandemic	SPAMAST	SPAMAST GAA/ 30,000.00

Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/Budget
The K-Domination Defect in the Join and Corona of Graphs	SPAMAST	SPAMAST GAA/30,000.00
Relativist (Soven Kierkegaard) Perceptual Theory on COVID-19 Pandemic	SPAMAST	SPAMAST GAA/ 38,000.00
Promoting Food Resiliency through Palaisdaan sa Pamantasan Project	SPAMAST	SPAMAST GAA/ 35,000.00
Promoting Food Resiliency Through “ Itikan sa Pamantasan Project (IPP) ”	SPAMAST	SPAMAST GAA/ 20,000.00
Barangay Integrated Development Approach (BIDA) Center for Organic Production Technology (OPT)	SPAMAST	SPAMAST GAA/20,000.00
Livelihood Innovation and Fair Entrepreneurship (LIFE) Extension Program	SPAMAST	SPAMAST GAA/41,600.00
Dyslexia Center Support to Struggling Reader	SPAMAST	SPAMAST GAA/30,000.00
Skills Training for the Deprived, Depressed and Underserved Persons	SPAMAST	SPAMAST GAA/20,000.00
Community Innovations and Development Solutions (CIDS)	SPAMAST	SPAMAST GAA/38,000.00

Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/Budget
Tilapia Value-Added Products: Entrepreneurship Opportunity for Inland Fish farmers	SPAMAST	SPAMAST GAA/25,000.00
My Garbage and I Extension Project	SPAMAST GAA	SPAMAST GAA/ 38,250.00
Utilization of Geographical Information System (GIS) Map for Adlai (Coix lacryma-jobi L.) Production in Selected Barangays in Malita, Davao Occidental	SPAMAST	SPAMAST GAA/10,465.00
Customary Conflict Resolution Syllabus Dissemination among HEIs in Davao Occidental & Del Sur	SPAMAST	SPAMAST GAA/14,874.38
Beach Forest Profiling in Malita Davao Occidental	SPAMAST	SPAMAST GAA/38,000.00
Cytotoxicity assessment of the selected medicinal plants utilized by the Indigenous People (IPs) of Don Marcelino, Davao Occidental	SPAMAST	SPAMAST GAA/38,000.00
Ethno-botanical Survey of Indigenous Herbs and Spices in Municipality Area of Jose Abad Santos, Davao Occidental	SPAMAST	-
GIS Mapping and Characterization of Different Varieties of Adlai in Selected Barangays of Davao Occidental	SPAMAST	SPAMAST GAA/26,000.00

Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/Budget
Basura ko, Sagot ko (International Cleanup Version)	SPAMAST	SPAMAST GAA/27,000.00
Enhancing Productivity of Inland Aquafarmers of Malita, Davao Occidental through Capability Development Activities		SPAMAST GAA/27,000.00
Community-Based Production of Dragon Fruit Seedlings (Hylocereus undatus) in Buhangin, Malita, Davao del Sur	SPAMAST	SPAMAST GAA/38,000.00
S&T-based Organically Grown Cucumber: Production, Marketing and Information Dissemination	SPAMAST	SPAMAST GAA/ 20,000.00
iSTACK - Integrated and Systemic Technology for Agricultural e-Commercial Kart	SPAMAST	SPAMAST GAA/86,000.00
SPAMAST E- Learning Series for BSSW Agency Field Supervisors in partnership with PASWI Davao Occidental Chapter	SPAMAST	SPAMAST GAA/ 30,000.00
Regional Agri-Aqua Innovation System Enhancement (RAISE) Program in Southern Mindanao: UGMARA: Uplifting the Grassroot-based Mindanaoans in AANR initiatives through Regional Approach	SPAMAST	DOST-PCAARRD/1,829,348.00
Developing IP-TBM in SPAMAST through RAISE		
Sustainable Agri-Fishery Enterprise (SAFE) on Fish Processing and Incubation Hub	SPAMAST	DA/40,000,000.00



Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/Budget
Pre-Harvest & Post-Harvest Mangifera Indica Quality of Mango as Influenced by Cultural Practices and Weather Condition	SPAMAST	SPAMAST GAA/ 40,000
Household Finance Management (HFM): An Assessment of Financial Knowledge and Behavior of Women and Basis for Interventions in Barangay Buhangin, Malita, Davao Occidental	SPAMAST	SPAMAST GAA/ 20,000
Physico-Chemical Properties of Soils and Soil Fertility Status under Mango (Mangifera indica) Production Area in Malita, Davao Occidental	SPAMAST	SPAMAST GAA/ 35,595
Blockchain-Based Novel System Application for Transparent Traceability of Halal-and-Tayeb Cacao Products	University of Southeastern Philippines	DOST/6,586,856.00
Resiliency of the Agriculture, Aquatic and Natural Resources (AANR) Sector in Times of Crisis: A Compendium of Regional Case Studies and Best Practices of Consortium Members' Initiatives in the Philippines	University of Southeastern Philippines	DOST-PCAARRD/ 2,000,000.00
Inter-consortia Convergence in Socio-Economic R&D Institutionalization of the Socio Economic Research and Data Analytics Centers in Consortia Operations	University of Southeastern Philippines	DOST-PCAARRD/1,601,619.00
An Integrated Management Response to the Spread of Fusarium Wilt of Banana in Southeast Asia (ACIAR Phase 2)	University of Southeastern Philippines	ACIAR/ AuD276,311

Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source
Application and Improvement of Embryo Transfer (ET) and Artificial Insemination Technologies as Tools Toward Achieving the Desired Number of Genetically Superior Breeder Dairy Cattle	USEP	DOST-PCAARRD/ 7,013,160.20
Design, Development and Optimization of an Automated Combined Mechanical Cacao Democilager-Fermenter-Dryer	University of Southeastern Philippines	DOST-PCAARRD/ 4,945,925.00
Enhancement of Food Processing Laboratory of USEP Tagum-Mabini Campus	University of Southeastern Philippines	DA-funded/ 5,000,000.00
Upgrading of Indoor and Controlled Button Mushroom Production Facility at University of Southeastern Philippines	University of Southeastern Philippines	DA-funded/ 5,000,000.00
Upgrading of Banana Tissue Culture Laboratory at University of Southeastern Philippines	University of Southeastern Philippines	DA-funded/ 5,000,000.00
Development and pilot testing of tree climbing-harvesting device and mobile mechanical dehusker for coconut	University of Southeastern Philippines	DOST-PCAARRD/ 4,999,995.00
Pest and Disease Incidence and Severity in Falcata Plantations in Mindanao	University of Southeastern Philippines	DOST-PCAARRD/ 5,779,862.53
Implementation of National Cooperative Test for Special Purpose Rice	University of Southeastern Philippines	246,400.00
ChicIoT: An IOT-Based Smart Poultry Building Environment and Growth and Health Status Monitoring and Modelling	University of Southeastern Philippines	DOST/ 4,768,038.00
Philippine Mining at the National to Catchment Scale: from Legacy Impacts to Sustainable Futures (PAMANA)	University of Southeastern Philippines	
Near-Real Time Monitoring of Banana Nutritional Status and Yield Forecasting Using Airborne Multispectral Imaging	University of Southeastern Philippines (USEP-CARS)	DOST-PCAARRD/ 5,000,000
Remote Sensing for Sustainable Minerals Development: A Case Study of Tampakan Deposit	University of Southeastern Philippines (USEP-CARS)	Sagitarrius Mines, Inc/ 280,000

Ongoing Projects as of August 2022

Program/ Project Title/Budhe	Agency	Funding Source/Budget
Impact Assessment of the PCIEERD Infrastructure Development Program	University of Southeastern Philippines (USEP-CARS)	DOST-PCIEERRD/ 1,422,851.65
Impact Assessment of the Phil LiDAR Program	University of Southeastern Philippines	DOST-PCIEERRD/ 2,218,354.17
Bacteriocin from Fermented Durian Rinds to Prevent Food Safety Issues	University of Southeastern Philippines	DOST-PCHRD/ 1,119,999
Development of the Philippine Groundwater Health Index (PGHI) for Monitoring Groundwater in Agricultural Areas	University of Southeastern Philippines	DOST-PCAARRD
Improvement of Soybean in Davao Oriental thru enhanced value chains, sustainable seed sector, and better varieties under different cropping systems	Davao Oriental State University	DOST-PCAARRD
Biodiversity in Selected Mountain Ecosystems of Mindanao for Conservation and sustainable Development	Davao Oriental State University	DOST-PCAARRD
Corn-Based Farming System (Corn+Peanut/ Corn+Mungbean) in Sitio Quarry, Barangay Malabog Paquibato District, Davao City	Department of Agriculture – RFO XI	
Maintenance and Operation of the DA RFO XI Itik Pinas Nucleus and Multiplier Farm and Itik Pinas Kayumanggi Duck Egg Production Project	Department of Agriculture – RFO XI	
Outscaling of Rice-based Farming System (Black Rice + Itik Pinas + Vehetable - Pinakbet) in Braulio E. Dujali, Davao Del Norte	Department of Agriculture – RFO XI	
Outscaling of Arabica Coffee Based Farming System (Coffee & White Potato + Upland Vegetables) in Barangay Alegre, Bansalan, Davao del Sur	Department of Agriculture – RFO XI	

Ongoing Projects as of August 2022

Program/ Project Title	Agency	Funding Source/Budget
ADAPTATION MITIGATION INITIATIVE in AGRICULTURE (AMIA-CRA) “Upscaling of Community Cacao/Coffee based Integrated Farming and Rehabilitation in different localities in Davao Oriental and Davao del Sur	Department of Agriculture – RFO XI	
Nutrient and Water Management for a Climate Change Resilient Coconut Agroecosystem in Luzon, Visayas, Mindanao	PCA-DRC	PCA/ 9,113,009
Development of Modalities on Climate-Resilient Coconut-based Farming Systems	PCA-DRC	PCA/ 2,700,000
Development of Investment Portfolio for Commercialization of Science-Defined Technologies on Coconut-Based Farming Systems	PCA-DRC	PCA/ 1, 700,000
Development of pest and disease monitoring, forecasting and management strategies using GIS	PCA-DRC	PCA/ 5,100.000
Physico-Chemical Properties of Soils and Soil Fertility Status under Mango (Mangifera indica) Production Area in Malita, Davao Occidental	SPAMAST	
Regional Agri-Aqua Innovation System Enhancement (RAISE) Program in Southern Mindanao : UGMARA Uplifting Grassroot-based Minadanaoans in AANR Initiatives through Regional Approach	DNSC DORSU SPAMAST UPMin USEP BPI PCA DDOSC DSSC KCAST	DOST-PCAARRD/ Year 1 & 2 = 30,229,888

Newly-Approved Proposals as of August 2022

Program/ Project Title	Agency	Funding Source/ Budget
Economic Comparative Analysis of Different production Techniques for Seaweeds	Davao Del Sur State College	DSSC/100,000
Mentoring the Parents: Amplifying Parental Involvement towards Learning (APIL)	Davao Del Sur State College	DSSC/50,000.00
Phytochemical and Antioxidant Activities of Coffee Leaf extracts From Digos City	Davao Del Sur State College	DSSC/100,000
Diversity of neglected and Underutilized crop species of Davao del Sur	Davao Del Sur State College	DSSC/100,000.00
Flexible Learning Stressors and Coping Strategies of Students in the Higher Educational Institutions (HEIs) of davao del Sur	Davao Del Sur State College	DSSC/50,000
Community Empowerment Program	Davao Del Sur State College	DSSC/100,000
Development and Testing of Seaweed-Based Biostimulant Breads	Davao Del Sur State College	DSSC/100,000
Coffee Table Book of Birds in Mount Apo	Davao Del Sur State College	DSSC/35,000
Performance evaluation of calamandarin seedlings in different root trainers	Bureau of Plant Industry	BPI

Newly-Approved Proposals as of August 2022

Program/ Project Title	Agency	Funding Source/ Budget
CDM Sustainability Initiative for Pummelo Industry in Davao City	University of Southeastern Philippines	USEP/188,571.42
Development of the Philippine Groundwater Health Index (PGHI) for Monitoring Groundwater in Agricultural Areas	University of Southeastern Philippines	
Impact Assessment of the PCIEERD Infrastructure Development Program	University of Southeastern Philippines	DOST-PCIEERD/ 1,422,851.65
Impact Assessment of the Phil LiDAR Program	University of Southeastern Philippines	DOST-PCIEERD/ 2,218,354.17
Bacteriocin from Fermented Durian Rinds to Prevent Food Safety Issues	University of Southeastern Philippines	DOST-PCHRD/1,119,999.40
Near-Real Time Tracking Using GIS and Thermal Sensing Technology for Foc TR4 Detection and Prediction Dispersal in Banana	University of Southeastern Philippines	DOST-PCAARRD/ 4,999,968.00



Newly-Approved Proposals as of August 2022

Program/ Project Title	Agency	Funding Source/ Budget
Varietal Improvement of Traditional Purple Corn in Davao Region for Food and Product Development	DA-RFO XI	DA/300,000.00
Seed System for Granola Potato Through Tissue Culture	DA-RFO XI	DA/400,000.00
Collection, Conservation and Characterization of Indigenous Materials for Plant Genetic Resources (PGR)	DA-RFO XI	DA/600,000.00
Technology Commercialization Support to Organized Farmers Enterprise for Product Development	DA-RFO XI	DA/300,000.00
Development of Adlay & Cacao based products	DA-RFO XI	DA/500,000.00
Study on Fermentation and Drying practices for Arabica Coffee	DA-RFO XI	DA/250,000.00
Fermentation and Blanching of Unripe Caradaba Banana Flour in Davao Oriental	DA-RFO XI	DA/300,000.00
Technology Demonstration on Honeydew Melon Production Under Protected Structure in Selected Municipalities of Davao Oriental	DA-RFO XI	DA/200,000.00
Adaptability Trial of Different Varieties of Grapes in Tugbok Davao City	DA-RFO XI	DA/250,000.00

Newly-Approved Proposals as of August 2022

Program/ Project Title	Agency	Funding Source/ Budget
Understanding the Mechanism of Biocide Movement in Coconut	PCA	PCA/ 1, 750,000
Integration of entomopathogens in the biological control system of coconut pests	PCA	PCA/ 2,100,000
Pest Management Strategies for Coconut Rhinoceros Beetle in Typhoon Odette Affected Regions	PCA	PCAARRD/ 5,000,000
Integration of Pest Management Mass Production of GMF for Coconut Rhinoceros Beetle	PCA	PCA/2,000,000
Performance evaluation of calamandarin seedlings in different root trainers	BPI-DNCRDPSC	BPI/ 300,000



Proposals submitted for Funding as of August 2022

Program/ Project Title	Proponent	Amount	Funding Source
Lidar-Based Online for Fusarium Reconnaissance and Disease Prediction System	UseP BPI-DNCRDPSC	PhP 51M	DA-BAR
Cacao Traceability in the Philippines (Phase 2)	USEP	PhP 4.9M	DOST- PCAARRD
Project Non-invasive Inspection of Durian Using AI (INDAI) with Rosario's Delicacies, Belviz Farm	UPMin		DOST

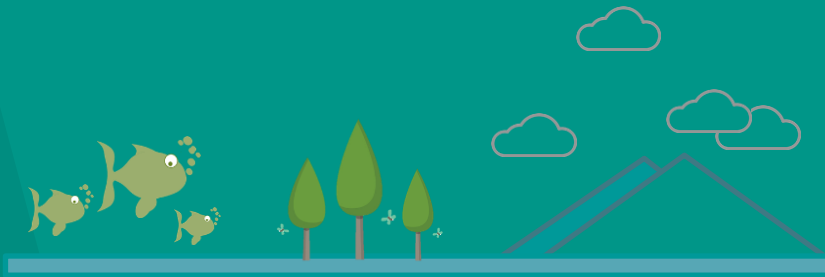


Proposals submitted for Funding as of August 2022

Program/ Project Title	Proponent	Amount	Funding Source
<p>Extending the Reach and Impact of the LIFE (Livelihood Improvement through Facilitated Extension) Model in Improving Livelihoods and Building Peace in Conflict-Vulnerable Communities in Mindanao</p> <p>Project 1: Contributing to peacebuilding through the LIFE model in MILF communities of Zamboanga Sibugay, South Cotabato and Maguindanao</p> <p>Project 2: Expanding the LIFE model to UP Mindanao's Land Reservation in Laak, Davao de Oro</p> <p>Project 3: Reintegration of IP Youth Farmer Evacuees (BAKWITS): Contributing to peacebuilding in Talaingod, Davao del Norte through the LIFE model</p>	<p>UPMin</p> <p>USeP</p>	PhP 32M	DOST-PCAARRD



Research and Development Results Utilization



SPAMAST In-House Review

held on July 26, 2022

- Eight(8) completed researches and two (2) extension projects were presented



USEP In-House Review

held on July 27, 2022

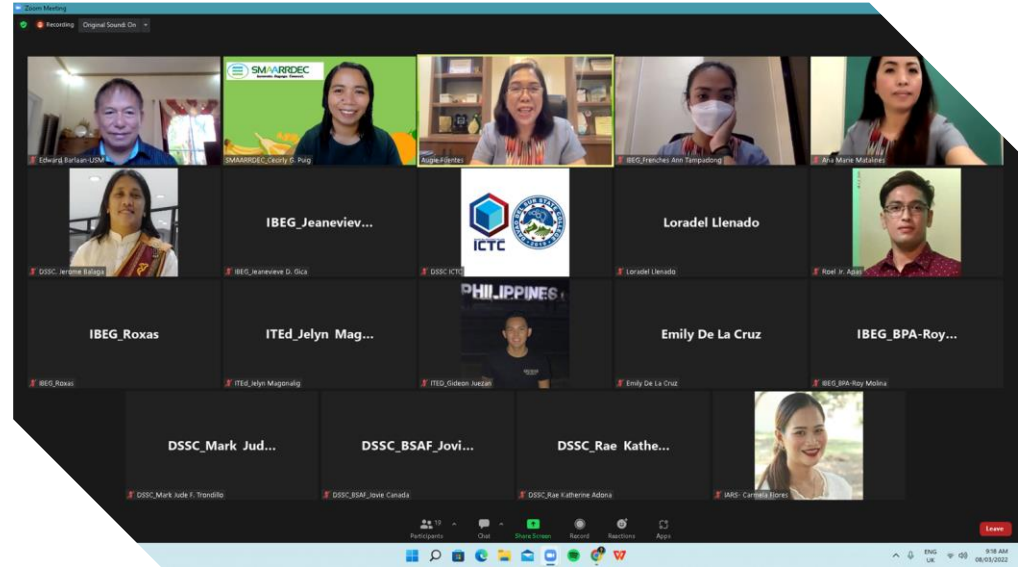
- Represented by Techno-Transfer Cluster Coordinator Dr. Evelyn Gecale
- Seven (7) completed researches and two (2) extension projects were presented



DSSC In-House Review

held on July 27, 2022

- R&D Cluster Coordinator Dr. Cecirly G. Puig served as one of the evaluators



Presentation of project “Resiliency of AANR Sector in Times of Crisis: A Compendium of Regional Case Studies and Best Practices of Consortium Members’ Initiatives in the Philippines”

held on August 11, 2022 at USeP-RDE Conference Room

- Presented by Project Leader Jennifer Hinlo to the selected Consortium Directors and Executive Board Members of PhilARM led by PCAARRD- Deputy Exec Dir for ARMSS Dr. Melvin B. Carlos
- CDs agreed to supply the lacking data needed to complete the write-up of terminal report



35th SMAARRDEC Anniversary Day 1

held on August 16-18, 2022, @ USeP Gymnasium and Cultural Center

*Opening Ceremony attended by the Heads and Representatives of the Consortium Member Institutions

- Conduct of Techno-Gabay Conference
- Agreed to forge a MOA between the SUCs and ATI XI for its sustainability
- Stakeholders Appreciation Night at the Ritz Hotel



35th SMAARRDEC Anniversary

Day 2

held on August 17, 2022, @ USeP Gymnasium and Cultural Center

- Conduct of Regional Symposium on RDE Highlights
- Conduct of Industry Forum and Technology Pitching



35th SMAARRDEC Anniversary Day 3

held on August 17, 2022, @ USeP –Hostel Dining Hall

- Conduct of Farmers and Fisherfolks Forum



- Awarding Ceremony



RAISE-UGMARA Program Update

- Program Leader Engr. Filmann T. Simpao presented the updates of the implementation of RAISE: UGMARA in the region to PCAARRD-Directors' Council on September 5, 2022 for its year 2 implementation
- All the CMIs involved already received the funding from DOST-PCAARRD

Learnings / Problems Encountered/Actions Taken

Problems Encountered

- Late submission of required documents;
- Delayed receipt of funds hence late hiring of project staff (SRA/SRS/Science Aide); and
- No financial expenditures disbursed.

Actions Taken

- Be resourceful in finding ways to conduct activities;
- Close communication with DOST-PCAARRD and the lead agency; and
- Fast track the required documents to receive the funds as soon as possible.

Learnings

- Effective communication/coordination and strong relationship between CMIs helped the program realized some year 1 targets.
- Close physical monitoring with CMIs provides better context of the real situation about the respective IP-TBM operations, guidance is provided quickly.



SERDAC Update

SERDAC ASTI Data Gathering Activity at Region 11



The Socioeconomic Research and Data Analytics Center - Mindanao has commenced its SERDAC ASTI Data Gathering Activity from July 19 – August 26, 2022 at the Davao del Norte State College , USEP Tagum, Kapalong College of Agriculture, Science and Technology, Davao De Oro State College, Central Mindanao University , Northern Mindanao Consortium for Agriculture, Aquatic and Natural Resources and Research Development, Bukidnon State University, Caraga State University and Northern Eastern Mindanao State University – Tagbina , WESMAARRDEC, MSU– Buug, Zamboanga Sibugay, Zamboanga State College of Marine Sciences and Technology, J. H. Cerilles State College - San Miguel, Zamboanga del Sur, Jose Rizal Memorial State University – Main Campus (Dapitan), JRMSU – Katipunan Campus, and Department of Agriculture – Research Division, Zamboanga Sibugay.

Capability Building and Governance



Nominees to the Southern Cross Univ (Australia) Scholarship Program for Marine Science

List of Possible Nominees to the Southern Cross University Scholarship Program for Marine Science
Consortium: SMAARRDEC

Name	Agency	Degree to be pursued	Course/ Specialization	Target Year of Study	Contact Number	Email address
Junarie Joy Masaglang Tuba	SPAMAST	PhD	Marine Science	2023	09099786744 09156201280	Junariejoytuba08@gmail.com joy@spamast.edu.ph
Jopy D. Cañeda	SPAMAST	MS in Marine Biology	Marine Biology	2023	09171496059	jopy.caneda@spamast.edu.ph
Christine Mae Edullantes	DNSC	PhD Marine Science	Marine Biology; Restoration Ecology	Spring 2022 or Summer 2023	09285541813	christinemae.edullantes@dnsc.edu.ph
Vanessa Aisaias	DORSU	PhD Marine Science	Marine Biology/Ecology	2022 or 2023	09761349468	veasaia@gmail.com
Ricksterlie Verzosa	DORSU	PhD Marine Science	Marine Biology/Ecology	2022 or 2023	09352419548	rixverzosa@gmail.com
Jefferson Centro	DORSU	MS and PhD Marine Science	Marine Biology/Ecology	2022 or 2023	09703770650	jeffersonantoniocentro@gmail.com
Chella May Sison	DORSU	MS and PhD Marine Science	Marine Biology/Ecology	2022 or 2023	09309504159	chellamayruizsison@gmail.com
Cristina Dagansina	DORSU	MS and PhD Marine Science	Marine Biology/Ecology	2022 or 2023	09158428107	dagansina.cristina@gmail.com
Rheacin Polestico	DORSU	MS and PhD Marine Science	Marine Biology/Ecology	2022 or 2023	09638325195	rapolestico20@gmail.com
Nikki Jane Manoooy	DORSU	MS and PhD Marine Science	Marine Biology/Ecology	2022 or 2023	09075654759	njmanooy@gmail.com

Nominees to the Osaka University Scholarship Program

SMAARRDEC Nominees for Osaka University

Name	Agency	Degree to be pursued	Course/ Specialization	Target Year of Study	Contact Number	Email address
<u>Leonel P. Lumogdang</u>	SPAMAST	PhD in Biological Sciences	Phycology, Microbiology, Biotechnology	2023 or earlier	09662703850	leonellumogdang@gmail.com
<u>Jea Farida Gurualim</u>	SPAMAST	PhD in Biological Sciences	Botany, Microbiology	2023	0915-555-2682	jguroalim@spamast.edu.ph
<u>Joeper Abella</u>	SPAMAST	PhD in Biological Sciences	Biology	2022	09287658950	abellajoeper@yahoo.com
<u>Judee N. Nogodula</u>	USEP	PhD in Microbiology	Molecular Microbiology/production of novel bioactive compounds from fungal endophytes or other microorganisms	2023 or 2024	09433348918	jnnogodula@usep.edu.ph
<u>Angelyn T. Lacap</u>	UP Mindanao	PhD Applied Microbiology or Molecular Microbiology	Postharvest Technology	2023	09184515142	atlacap@up.edu.ph
<u>Joan T. Acaso</u>	UP Mindanao	PhD	Biological Science (Molecular Microbiology)	2023/ 2024	09183356150	jtacaso@up.edu.ph
<u>Royi Gem E. Villame</u>	UP Mindanao	PhD	Molecular Microbiology	2024	09157611856	revillame@up.edu.ph

Endorsed participants to the 1st Philippine Scientific Bamboo Conference sponsored by PCAARRD

Name	Agency
For. Edgar Solis	USEP
Rhea Lour Germa	USEP
Franz Jeemzon Tan	SPAMAST
Eduardo O. Sagarino	DENR-ARDEC
Reylan Dave Evangelista	DENR-ARDEC
Alex R. Palero	DENR-ARDEC
Royette C. Posadas	DENR-ARDEC
Dolly V. Nitura	DENR-ARDEC
Mari Grace P. Moralde	DENR-ARDEC
Juna S. Sanchez	PAGRO-Davao del Norte
Renilda Bangoy	PAGRO-Davao del Norte

Endorsement for publication incentives

Title	Agency/Authors	Publication/Date/Issue
Mercury Concentration of the Soil Profiles of the Abandoned Mercury Mine in Sta. Lourdes, Puerto Princesa City, Palawan, Philippines	DENR-ERDB-ARDEC Royette C. Posadas Alvin Angelo A. Salting, Joan Grace T. Yamas and Ernesto S. Patayon	Philippine Journal of Science 04 March 2022 Vol. 151 No. 3 (June 2022 Issue)
Soil Quality Index for the Two Agricultural Areas Along the Naboc River in Davao de Oro, Philippines Contaminated with Mercury	DENR-ERDB-ARDEC Royette C. Posadas, Alvin Angelo A. Salting Reylan Dave A. Evangelista, Rodrigo M. Real, Jr, Lyrae A. Casidsid, and Eduardo O. Sagarino	Philippine Journal of Science 03 August 2022 Vol 151 No. 5 (October 2022 Issue)

Recognition from 10th Infantry (AGILA) Division

held on August 13, 2022

- Recognition of Dr. Importante for the implementation of AGAK Project and of Dr. Lourdes C. Generalao for various projects implemented in IP Communities of Talaingod and Paquibato



RSRDEH 2022 Best R&D Paper Awards

RESEARCH CATEGORY			
Rank	Agency	Authors	Title
1 st	DA-RFO XI	Simeon C. Fernandez* Lilybeth A. Panolino Danny Cris C. Bucadon Jesus Melchor P. Bertolpo Mariabeth B. Alabar Rogelio C. Quinto, Jr	Multilocation Trial of Ten (10) Promising Varieties of Cacao in Different Agro-Climatic Zones in the Philippines: Evaluation and Characterization of Ten Promising Varieties of Cacao in Type IV Agro-Climatic Zones in Southeastern Mindanao
2 nd	DEN R-ERD B-ARD EC	Royette C. Posadas* Reylan Dave A. Evangelista Alvin Angelo A. Salting	Risk Profiling of Consuming Mercury Contaminated Crops in Monkayo, Davao de Oro, Philippines
3 rd	USEP	Christian Paul F. Escarian* Mary Rose S. Roferos Hezekiah C. Cañosa	Hydrogeological Survey on Proposed Groundwater Extraction Sites in Barangay Kahayag-San Roque, Bislig City: A Collaboration Between Bislig City Water District and USEP

DEVELOPMENT CATEGORY			
Rank	Agency	Authors	Title
1 st	USEP	Bryl I. Manigo Gilbert A. Importante Gilbert M. Gordo Filman T. Simpao	Piloting Science for the Convergence of Agriculture and Tourism (SciCAT) to a Magsasaka-Siyentista Farm in Davao Region
2 nd	DSSC	Juan P. Agudera, Jr Augie E. Fuentes Edralyn Catubay Jade Caintic Mara Jane Calapardo Joannie Mae Galupan, Sheryll Mae Roy Jammy Franciscom Ruby Paquit	DSSC Trichoderma Project: Supports Banana Growers Manage Fusarium Wilt Disease (FWD)*
3 rd	DORSU	Arvin A. Andacao* Gorjel E. Llanita Ma. Anita O. Nuñez, Jaypee I. Cantones	University Disaster Response: Assistance Provision and Impact Assessment of Flood and Earthquake in Extension Campuses



RSRDEH 2022 Best R&D Paper Awards

POLICY BRIEF		
Agency	Authors	Title
USeP	Joeteddy B. Bugarin	Managing the Institutional Mechanism for the Future of Davao's Pummelo Industry.
DORSU	Amy G. Ponce	Securing the Future of the Endangered: Mega Bat's Plea for a Home Security
DSSC	Rodcel Malinao* Jeanevive D. Gica Cecile Lofranco	Gender based Involvement in the Management of Marine Protected Areas in Sta. Cruz Davao del Sur



Policy Advocacy for S&T Development



Policy Brief for Presentation to RRDC XI

POLICY BRIEF		
Agency	Authors	Title
USeP	Joeteddy B. Bugarin	Managing the Institutional Mechanism for the Future of Davao's Pummelo Industry.

Financial Status as of September 2022

SUMMARY

As of Sept. 2, 2022

Consortium Operations 2022

Total Released (2022)	2,952,262.00				
	Budget	Disbursed	Payables	Unexpended	Utilization
Salary	293,784.00	174,794.71	10,984.44	108,004.85	63.24
Honorarium	436,800.00	109,200.00	109,200.00	218,400.00	50.00
Travel	70,046.00	33,066.00	-	36,980.00	47.21
Communication	30,000.00	4,593.15		25,406.85	15.31
Repairs and Maintenance	-	-		-	0.00
Supplies	139,400.00	26,720.25	112,679.75	-	100.00
Printing	90,000.00	24,430.00	33,227.00	32,343.00	64.06
Rent Expense	30,000.00	21,500.00	8,500.00	-	100.00
Representation	747,816.00	58,812.00	688,740.00	264.00	99.96
Other Professional Services	605,561.74	231,686.93	9,205.45	364,669.36	39.78
Other MOOE	150,937.40	70,123.00	51,933.25	28,881.15	80.87
Subscription Expenses	7,916.86	7,916.86	-	-	100.00
Indirect Cost_Utilities	50,000.00	-	-	50,000.00	0.00
Indirect Cost_Supplies and Materials Exp.	40,000.00	4,363.00	25,952.35	9,684.65	75.79
Indirect Cost_Printing and Binding Exp.	10,000.00	-		10,000.00	0.00
Equipment Outlay	250,000.00	-	-	250,000.00	0.00
Total	2,952,262.00	767,205.90	1,050,422.24	1,134,633.86	61.57



Updates on CMIs Annual Contribution as of August 2022

Agencies	Year Contributed	
	2021	2022
BFAR XI		
BPI-DNCRDPSC	✓	
DA-RFO XI	✓	✓
DDOSC	✓	✓
DENR-ERDB-ARDEC		✓
DNSC	✓	✓
DORSU		
DOST XI	✓	✓
DSSC	✓	✓
PCA-DRC	✓	✓
PhilFIDA XI		
PLGU-DavNor	✓	✓
PLGU-DavSur		
PRRI		
SPAMAST		✓
UPMin		
USeP	✓	✓





SMAARRDEC

Innovate. Engage. Connect.

**DAGHANG
SALAMAT!**

