

**EMERGING INTER DISCIPLINARY RESEARCH (EIDR) PROGRAM
ONGOING AND COMPLETED IN 2018**

KRA: TRANSPARENT, ACCOUNTABLE AND PARTICIPATORY GOVERNANCE

Program Title	Name of Proponent	CU/College/Unit	Beneficiaries	Duration	Start Date	End Date	Total Program Budget	STATUS	Publications	No. of Mentored / Graduated Students			Other Outputs
					Year	Year				BS/BA	MS/MA	PHD	
Social-ecological resilience on different spatial and temporal scales (Emphasis on the coast)	Yap, Maria Helena	DIL CS MSI	LGUs, coastal and rural communities, farmers, researchers	4 Years	2012	2016	9,159,992.00	Completed	Wagner A, Yap DLT, Yap HT. 2015. Drivers and consequences of land use patterns in a developing country rural community. Agriculture, Ecosystems and Environment 214, 78-85. Benjamin CS, Punongbayan AT, Dela Cruz DW, Villanueva RD, Baria MVB, Yap HT. 2016. Use of Bayesian analysis with individual-based modeling to project outcomes of coral restoration. Restoration Ecology, doi:10.1111/rec.12395. Labao AB, Naval PC Jr, Yap DLT, Yap HT. 2017. Influencing rural livelihood switching through equipment assets for agroecosystems to alleviate pressure on resources. Agriculture, Ecosystems and Environment 248, 96-104. Arcuna M, Tun JO, Yap HT, Concepcion GP. 2018. <i>Callyspongia samarensis</i> (Porifera) extracts exhibit anticancer activity and induce bleaching in <i>porites cylindrica</i> (Scleractinia). Chemistry and Ecology, DOI: 10.1080/02757540.2018.1437148 Servonnat M, Kaye R, Siringan FP, Munar J, Yap HT. Imperatives for conservation in a threatened center of biodiversity (Submitted to "Coastal Management"). Yap HT. One-ecosystem analysis for environmental conservation and sustainable livelihood (Submitted to "F1000 Research" Open Platform publishing)	2			Graduated 1 MS student from Karlsruhe Institute for Technology and 1 MS student from Ecole Normale Supérieure de Paris ABS-CBN video on Abra de Ilog, Mindoro MOU between UP and Ecotone Resilience Locqueville, J, Yap, HT. Landsat time series to monitor swidden decline in a center of diversity (Philippines). Submitted to "Remote Sensing Applications: Society and Environment" (Under revision) Labao, AB, Naval Jr, PC, Yap, DLT, Yap, HT. Using deep-belief networks to predict work-shifting probabilities in a rural Philippine community to assist management approaches. For possible submission to "Conservation Biology". Olivares, J, Bantang, J, Yap, HT. Extracting complex network structures from a socioeconomic system in a high biodiversity area. For submission to a journal on complexity.
HULLUBATON: Putting together the Mandaya Dawot	Quintero, Genevieve	MIN CHSS Humanities Department	Researchers, academe, indigenous communities	4 Years	2012	2014	2,941,741.58	Terminated					Audio files of the Hullubaton (Gambang and Lumungtad) and Hullubaton (Buyag and Sadya) Video of the Mandaya Dawot and The Mandaya Balyans Five Hullubatons texts have been recorded, transcribed and written down The Hullubatons have been translated into two languages: English and Visayan Presentations in international conference
Towards good water governance for development: A multi-case analysis	Rola, Agnes	LB CPAF Institute for Governance and Rural Development	Policy makers, water districts, LGUs, national government agencies, academe, NGOs, general public	4 Years	2012	2016	18,454,365.60	Terminated	Pintor LL, Dizon JT, Rola AC, Quimbo MT, Dinh Ha Q. 2013. Allocation and usage of water for irrigation water governance in Sta. Cruz river watershed, Laguna, Philippines. International Journal of Ecology and Conservation 7, 70-87. Hall R, Lizada J, Dayo MH, Abansi C, David M, Rola A. 2015. To the last drop: The political economy of Philippine water policy. Water Policy 17, 946-962. Doi: 10.2166/wp.2015.150. Rola AC, Abansi CL, Arcala-Hall R, Lizada JC, Sison IVM, Araral EK Jr. 2015. Drivers of water governance reforms in the Philippines. International Journal of Water Resources Development 32, 135-152. Doi:10.1080/07900627.2015.1060196. Rola AC, Pulhin JM, Tabios GQ III, Lizada JC, Dayo MHF. 2015. Challenges of water governance in the Philippines. Philippine Journal of Science 144, 197-208. Abansi CL, Doble MCC, Cariño JK, Rola AC. 2016. Beyond prices: The cultural economy of water in the Cordillera highlands of Northern Luzon, Philippines. Asia Pacific Viewpoint 57, 280-293. Doi:10.1111/apv.12126. Rola AC, Abansi CL, Arcala-Hall R, Lizada JC. 2016. Characterizing local water governance structure in the Philippines: Results of the water managers' 2013 survey. Water International 41, 231-250. Doi:10.1080/02508060.2015.1113078.			3	Mentoring of 3 PHD students Assisted the river councils in Benguet and Laguna in the preparation of their water management plans Institutionalization of the Balili River System Revitalization Coalition (BSRSC) Proposed the revitalization of the Tigum-Aganan Watershed Management Board (TAWMB) Sta. Cruz watershed stakeholders to prepare an investment plan on solid waste management Presentation of the project findings to Congress

									Rola AC, Pulhin JM, Arcala-Hall R. 2018. Water Policy in the Philippines. Springer International Publishing.				
Computer-aided discovery of compounds for the treatment of tuberculosis in the Philippines	Billones, Junie	MAN CAS DPSM	General public, medical/health practitioners, researchers	4 Years	2012	2016	38,221,750.00	Terminated	<p>Billones JB, Carrillo MCO, Organo VG, Macalino SYI, Ennacen IA, Sy BA. 2013. Virtual screening against <i>Mycobacterium tuberculosis</i> Lipocate Protein Ligase B (Mtb LipB) and <i>in Silico</i> ADMET Evaluation of Top Hits. <i>Oriental Journal of Chemistry</i> 29, 1457-1468.</p> <p>Billones JB, Carrillo MCO, Organo VG, Macalino SYI, Ennacen IA, Sy JB. 2014. Virtual screening against <i>M. tuberculosis</i> 7,8-Diaminopelargonic Acid Synthase (Mtb BioA) and <i>in Silico</i> Toxicity Evaluation of Top Hits. <i>Current Enzyme Inhibition</i> 10, 105-112.</p> <p>Billones JB, Valle AMF. 2014. Structure-based design of inhibitors against maltosyltransferase GIGe. <i>Oriental Journal of Chemistry</i> 30, 1137-1145.</p> <p>Clavio NAB, Billones JB. 2014. Virtual screening against <i>Mycobacterium tuberculosis</i> isocitrate lyase and <i>in silico</i> ADME-Tox evaluation of top hits. <i>Journal of Chemical and Pharmaceutical Research</i> 6, 727-738.</p> <p>Sampaco, A-RB III, Billones JB. 2015. Virtual screening of natural products, molecular docking and dynamics simulations on <i>M. tuberculosis</i> S-adenosyl-L-homocysteine Hydrolase. <i>Oriental Journal of Chemistry</i> 31, 1859-1865.</p> <p>Vios VSL, Billones JB. 2015. Cluster and multi-linear regression analyses guided identification of molecular descriptors that account for cyclooxygenase activities. <i>Journal of Chemical and Pharmaceutical Research</i> 7, 735-742.</p> <p>Billones JB, Carrillo MCO, Organo VG, Macalino SYI, Sy JBA, Ennacen IA, Clavio NAB, Concepcion GP. 2016. Towards antituberculosis drugs: <i>In silico</i> screening of synthetic compounds against <i>Mycobacterium tuberculosis</i> LD-transpeptidase 2. <i>Drug Design, Development and Therapy</i> 10, 1147-1157.</p> <p>Billones JB, Carrillo MCO, Organo VG, Sy JBA, Clavio NAB, Macalino SYI, Ennacen IA, Lee, AP, Ko, PKL, Concepcion, GP. 2017. <i>In silico</i> discovery and <i>in vitro</i> activity of inhibitors against <i>Mycobacterium tuberculosis</i> 7,8-diaminopelargonic acid synthase (Mtb BioA). <i>Drug Design, Development and Therapy</i> 11, 563-574.</p>	26	1	<p>Set up of synthesis laboratory in UP Manila</p> <p>Set up of computational facilities in UP Manila</p> <p>Establishment of a computer-aided drug discovery and development research group in UP Manila</p> <p>Research collaborations with Sophia University, Japan; Chulalongkorn University, Thailand; National University of Singapore, Singapore; Rutgers University, USA</p>	
Palaeoenvironmental and biodiversity study of Mindoro Island: An archaeological science initiative	Mijares, Armand Salvador	DIL ASP	Researchers, academe, indigenous communities	4 Years	2012	2016	24,243,944.00	Terminated	<p>Porr M, Mijares ASB, Pawlik AF, Piper P, Padilla S Jr. 2012. North of the Southern Arc - The Mindoro Archaeological Research Program: A summary of the 2010 and 2011 fieldwork activities. <i>Australian Archaeology</i> 75, 110-117.</p> <p>Pawlik AF, Piper PJ, Faylona MGGP, Padilla SG Jr, Carlos J, Mijares ASB, Vallejo B Jr, Reyes M, Amano N, Ingicco T, Porr T. 2014. Adaptation and foraging from the terminal Pleistocene to the Early Holocene: Excavation at Bubog on Ilin Island, Philippines. <i>Journal of Field Archaeology</i> 39, 230-247.</p> <p>Pawlik AF, Piper PJ, Mijares ASB. 2014. Modern Humans in the Philippines: Colonization, Subsistence and New Insights into Behavioural Complexity. In M Porr and R Dennell (eds), <i>Southern Asia, Australia and the Search for Human Origins</i>, Cambridge Press, 135-147.</p> <p>Mijares ASB. 2015. Human Emergence and Adaptation to an Island Environment in the Philippine Paleolithic. In Kaifu et al. (eds), <i>Emergence and Diversity of Modern Human Behavior in Paleolithic Asia</i>. Texas A&M University Press, 171-181.</p>		2	2	<p>Documentary film titled "Developing Archaeological Science: The Aklan Survey" in collaboration with Film Institute</p>

									<p>Neri LAM, Pawlik AF, Reepmeyer C, Mijares ASB, Paz VJ. 2015. Mobility of early islanders in the Philippines during the Terminal Pleistocene/Early Holocene boundary: pXRF-analysis of obsidian artefacts. <i>Journal of Archaeological Science</i> 61, 149-157.</p> <p>Pawlik AF. 2015. Detecting Traits of Modern Behavior through Microwear Analysis. In Kaifu et al. (eds). <i>Emergence and Diversity of Modern Human Behavior in Paleolithic Asia</i>. Texas A&M University Press, 183-198.</p> <p>Pawlik AF. 2015. Frühe Seefahrer: Die Eroberung der Inselwelt jenseits des Sundalands [Early seafarers: the conquest of the island world beyond Sundaland]. In A Reinecke and M Tjoa-Bonatz (eds), <i>Im Schatten von Angkor: Archäologie und Geschichte Südasiens</i>, Mainz: Philipp von Zabern, Germany, 30. ISBN: 9783805349222.</p> <p>Pawlik AF. 2015. Vorgeschichte der Philippinen: Kulturelles Hinterland oder einfach nur paradiesisch? [Prehistory of the Philippines: Cultural backyard or simply paradisaical?]. In A Reinecke and M Tjoa-Bonatz (eds), <i>Im Schatten von Angkor: Archäologie und Geschichte Südasiens</i>, Mainz: Philipp von Zabern, Germany, 21-29. ISBN: 9783805349222.</p> <p>Pawlik AF, Piper PJ, Wood RE, Lim KXA, Faylona MGG, Mijares ASB, Porr M. 2015. Shell tool technology in Island Southeast Asia: an early Middle Holocene Tridacna adze from Ilin Island, Mindoro, Philippines. <i>Antiquity</i> 89, 292-308.</p>			
Versatile Instrument System for Science Education and Research – Sensors and Modules (VSSER:SM)	Tapang, Giovanni	DIL CS NIP	Students, teachers, researchers	2 Years	2013	2015	13,288,784.00	Completed	<p>Hilario PL, Villangca MJ, Tapang G. 2014. Independent light fields generated using a phase-only spatial light modulator. <i>Optics Letters</i> 39, 2036-2039.</p> <p>Improso WDG, Hilario PLA, Tapang G. 2014. Zero order diffraction suppression in a phase-only spatial light modulator via the GS algorithm. <i>OSA Technical Digest, paper FTu4C.3</i>.</p> <p>Carasco MCA, Pizarro JPP, Tapang G. 2015. Development of a microcontroller-based wireless accelerometer for kinematic analysis. <i>Journal of Mechatronics, Electrical Power and Vehicular Technology</i> 6, 1-8.</p> <p>Bruzon DA, Tingson JK, Tapang G, Martinez IS. 2017. Electroreduction and solubility of CO2 in methoxy-and nitrile-functionalized imidazolium (FAP) ionic liquids. <i>Journal of Applied Electrochemistry</i> 47, 1251-1260.</p> <p>Tingson JK, Bruzon DA, Tapang G, Martinez IS. 2018. Syntheses and properties of Methoxy and Nitrile functionalized imidazolium tris (pentafluoroethyl) trifluorophosphate ionic liquids. <i>Journal of Chemical and Engineering Data</i> 63 (5), 1135-1145.</p>			<p>40 handheld multichannel data acquisition system and plug and play analog and digital sensor for use in science laboratories</p> <p>Laboratory and instructional manuals for 40 experiments in biology, chemistry, physics, environmental science and engineering</p> <p>Development of software for control, user interface and analytical tools</p> <p>Development of an LED-based spectrometer for advanced chemistry laboratory experiments</p>
Wood to energy: Use of fast growing plantation tree species as fuel pellets in the Philippines	Acda, Menandro	LB CFNR Dept. of Forest Products and Paper Science	Agriculture industry, researchers	4 Years	2013	2017	18,003,000.00	Terminated	<p>Acda MN. 2015. Fuel pellets from downed coconut (<i>Cocos nucifera</i>) in super typhoon Haiyan. <i>Biomass and Bioenergy</i> 83, 539-542.</p> <p>Acda MN, Devera EE. 2015. Physico-chemical properties of wood pellets from forest residues. <i>Journal of tropical forest Science</i> 26, 589-595.</p> <p>Acda MN. 2016. Physical and chemical properties of fuel pellets from agricultural residues. <i>The Philippine Agricultural Scientist</i> 99, 283-287.</p> <p>Acda MN, Jara AA, Daracan VC, Devera EE. 2016. Opportunities and barriers to wood pellet trade in the Philippines. <i>Ecosystems & Development Journal</i> 6, 27-31.</p> <p>Jara AA, Daracan VC, Devera EE, Acda MN. 2016. Techno-financial analysis of wood pellet production in the Philippines. <i>Journal of Tropical Forest Science</i> 28, 517-528.</p>	2	2	Set up of a wood pellet pilot plant in UPLB

										<p>Rojo MIA, Acda MN. 2016. Interspecific Agonistic behavior of <i>Macrotermes gilvus</i> (Isoptera: Termitidae): implication on termite baiting in the Philippines. <i>Journal of Insect Behavior</i> 23, 273-282.</p> <p>Bajo P Jr, Acda MN. 2017. Fuel pellets from a mixture of rice husk and wood particles. <i>Bioresources</i> 12, 6618-6628.</p> <p>Romano AD, Acda MN. 2017. Feeding preference of the drywood termite <i>Cryptotermes cynocephalus</i> (Kalotermitidae) against industrial tree plantation species in the Philippines. <i>Journal of Asia-Pacific Entomology</i> 20, 1161-1164.</p>			
Exploring a theory of engaged collaboration across borders among transnational advocacy networks	Gata, Ma. Larissa Lelu	LB CFNR Dept. of Social Forestry and Forest Governance	Researchers, academe, NGOs	2 Years	2013	2015	3,417,620.00	Terminated	Gata MLLCP. 2016. Philippines, Families. In Shehan C (ed), <i>The Wiley Blackwell Encyclopedia of Family Studies</i> , 1-5. John Wiley and Sons, Inc.	1	1	<p>Copyright application of the Community-based Information Database System</p> <p>Community-based Strategies to Climate Change Adaptation: A Teaching-Learning Module for Inclusive Development. [online platform]</p> <p>Online discussion forum for local discussion groups</p> <p>Hosted 1 USAID Global Research and Innovation Fellowship Network Fellow</p>	
The use of the ethylene antagonist 1-methylcyclopropene (1-MCP) to prolong the shelf-life of minimally processed fruits and vegetables	Castillo-Israel, Katherine Ann	LB CA Food Science Cluster	Food processing industry, researchers	2 Years	2013	2015	4,002,448.00	Terminated	<p>Castillo-Israel KAT, Gandia JBL, Velez ACG, Absulio WL, Bainto LC. 2015. Storage quality of fresh-cut Philippine "Carabao" mango (<i>Mangifera Indoxa</i> L. cv. "Carabao") fruits with 1-Methylcyclopropene (1-MCP) post-cutting treatment. <i>International Food Research Journal</i> 22, 2196-2202.</p> <p>Relox PE, Castillo-Israel KAT, Serrano EP, Absulio WL, Gandia JBL. 2015. Efficacy of 1-methylcyclopropene post-cutting treatment on fresh-cut papaya (<i>Carica papaya</i> L. cv. "Sinta") storage quality using two packaging forms. <i>International Food Research Journal</i> 22(3), 910-917.</p> <p>Bernardino MA, Castillo-Israel KAT, Serrano EP, Gandia JBL, Absulio WL. 2016. Efficacy of 1-methylcyclopropene (1-MCP) post cutting treatment on the storage quality of fresh-cut "Queen" pineapple (<i>Ananas comosus</i> (L.) Merr. cv. "Queen"). <i>International Food Research Journal</i> 23, 667-674.</p>	8	7	Patent application for 1-MCP on fresh-cut pineapple. The technology can extend the shelf-life of the fruits by 1-2 days.	
Clinical and autoimmune characteristic of early onset diabetes in young adult Filipinos	Paz-Pacheco, Elizabeth	MAN CM	General public, medical/health practitioners, researchers	2 years	2013	2015	11,507,605.00	Ongoing Extended until December 2018				Scorecard to predict type 1 and type 2 diabetes	
Drug use and behavioral health among young people in metro manila: A baseline cum intervention study	Estacio, Leonardo	MAN CAS Dept. of Behavioral Sciences	Health care providers, researchers, general public	3 Years	2015	2018	16,673,384.25	Terminated			3	<p>Mentoring of 3 masteral students</p> <p>Established the Behavioral Health and Addictions research group in UP Manila</p> <p>Research partnership agreement with DOH, Dangerous Drugs Board, treatment and rehabilitation centers</p> <p>Training curriculum/module for community volunteers and treatment providers</p> <p>Preparation of a software/program that aids in data collection and analysis</p> <p>Community-based treatment model for drug users</p>	
One UP health benefits action research: Towards a gendered universal health care sectoral model utilizing an Information Technology System	Claudio, Sylvia	DIL CSWCD	Health care practitioners, UP employees, researchers	2 Years	2013	2015	6,535,650.00	Terminated				<p>Setting up of the One UP Health website</p> <p>Key informant interviews with Barangay UP, UP HRDO, UHS, GSIS, SSS, PhilHealth, PCSO</p> <p>(Output of project is a policy paper submitted to data privacy commission, GSIS, SSS, PhilHealth, and UP Diliman Health Centers)</p>	
Towards an enhanced health care system by community managed health programs (CMHPs) to achieve better health outcomes: A community participatory research for advocacy to local government units (LGUs).	Sia, Isidro / Co, Edna	MAN CM DIL NCPAG	General public, health care providers, LGUs, government agencies, researchers	2 Years	2014	2016	19,999,855.92	Terminated	Co E. Caragay RN, Lopez JC, Sia IC, Estacio L, Lam H, Madamba JS, Abola R, Villena MF. 2018. Scaling up primary health care in the Philippines: lessons from a systematic review of experiences of community-based health programs. <i>Acta Medica Philippina</i> 52, 153-161.			<p>Established "Best Practice Guidelines" for the management of 10 common community diseases</p> <p>Ang mga community health workers ng mga CMHP ng Tanay, Rizal; Sorsogon City at Gubat, Sorsogon; Murica at Sipalay, Negros Occidental; Sinacaban,</p>	

Department of Health (DOH), Philippine Institute for Traditional and Alternative Health Care (PITAHAC), and Philippine Insurance Corporation (PhilHealth)									Lam H, Sia IC, Lopez JC, Caragay RN, Estacio L, Co E, Madamba JS, Abola RI, Maybitun CM, Velasco DC. 2018. Community-managed health programs for better health outcomes: Preliminary report of community participatory research in Murcia and Isabela, Negros Occidental, Philippines. Acta Medica Philippina 52, 146-152. Lopez JCF, Caragay RN, Sia IC, Lam H, Estacio L, Co E, Madamba JS, Velasco DC. 2018. Catalyzing development of best practice guidelines for community-managed health programs: Case study of a community-academic partnership (Accepted for publication in Acta Medica Philippina)				Aloran, at Tudela, Misamis Occidental; Midsayap, North Cotabato; Patikol at Jolo, Sulu; at Quezon City; at Sina IC Isidro, RN Caragay, RM Galang. 2015. Best practice guidelines ng mga community-managed health programs (CMHPs) sa paggamot ng sampang karamiwang sakit sa komunidad. Quezon City: IMAN (Desktop publication)
Interdisciplinary research and development for the germplasm characterization, production and utilization of Gabing San Fernando for feeds	Garcia, Jose Nestor	LB Agricultural Systems Cluster	Farmers, researchers, industry	2 Years	2015	2017	9,979,732.00	Terminated	Cayabyab BF, Villavicencio EB, Limosinero RL, Villancio VT, Garcia JNM. 2017. Survey of insect pests and diseases of gabing San Fernando, xanthosoma sagittifolium (L.) schott and melet in selected areas of Luzon and Zamboanga City, Philippines. Journal of the International Society for Southeast Asian Agricultural Sciences 23, 94-102. De Chavez HD, Villavicencio EB, Villancio VT, Garcia JNM, Bulatao MJ, Villavicencio RL, Bondad JJ. Survey of insect pests and diseases of gabing San Fernando, Xanthosoma Sagittifolium (L.) Shott and Melet in selected areas of Luzon and Zamboanga City, Philippines (Submitted to ISSAAS). Mateo JM, Villavicencio ML, Ignacio RM, Villancio VT, Bulatao MJ, De Chavez H, Garcia JNM. Survey of insect pests and diseases of gabing San Fernando (Xanthosoma Sagittifolium (L.) Schott, Melet) Corms and its potentials as food and feed substitute for cassava (Manihot Esculenta Crantz) (Submitted to Philippine Journal of Crop Science).	2	1	Manuscripts being prepared for publication De Chavez, HD, Villavicencio, EB, Villancio, VT, Garcia, JNM, Bulatao, MJ, Villavicencio, ML, Bondad, JJ. Propagation techniques for rapid establishment and production of gabing San Fernando (Xanthosoma Sagittifolium (L.) Schott & Melet) Garcia, JNM, Villavicencio, EB, De Chavez, HD, Villancio, VT. Use of cut portions of corms and small cormels as propagation methods for multiplication of gabing San Fernando (Xanthosoma Sagittifolium (L.) Schott & Melet) Adiovo, CB, Bulatao, MJ, Cruz, RM, Garcia, JNM, Villancio, VT, Raro, RI. Utilization of gabing San Fernando corms (Xanthosoma Sagittifolium (L.) Schott & Melet) as partial energy source for growing-finishing pigs Bulatao, MJ, Cruz, RM, Garcia, JNM, Villancio, VT, Limosinero, RL,	
Bifurcations in laser networks with Sn symmetry	Collera, Juancho	BAG CS Dept. of Mathematics and Computer Science	Researchers, academe	2 Years	2014	2016	930,240.00	Terminated	Buono PL, Collera JA. 2015. Symmetry-breaking bifurcations in rings of delay-coupled semiconductor lasers. Society for Industrial and Applied Mathematics Journal on Applied Dynamical Systems 14, 1868-1898. Collera JA. 2016. Symmetry-breaking bifurcations in laser systems with all-to-all coupling. Mathematical and Computational Approaches in Advancing Modern Science and Engineering, 81-88. Domogo AA, Collera JA. 2016. Classification of codimension-one bifurcations in a tetrad of lasers with feed forward. International Conference on Fundamental and Applied Sciences (AIP Conference Proceedings) 1787, issue 1, 10.1063/1.4968141.				
Identifying transaction costs and assessing their effects in agriculture: The case of farmers' market participation in the Philippine rice sector	Cuevas, Agham	LB CEM Dept. of Economics	Farmers, rice producers, entrepreneurs, researchers	1 Year	2014	2015	1,137,000.00	Completed	Cuevas A, Clarete RL. 2015. Effect of transaction costs on farmers' market participation in the Philippine rice sector. Philippine Journal of Crop Science 40, 35-44. Cuevas AC. 2016. Effects of transaction costs on rice farmers' adoption of certified seeds in the Philippines. Journal of Economics, Management and Agricultural Development 2, 1-13.				
Assessment of the effects of combining biochar fertilizer and vermicompost on soil quality and crop production	Aggangan, Nelly	LB NIMBB BIOTECH	Farmers, researchers, agriculture industry	3 Years	2015	2018	10,500,000.00	Ongoing Extended until February 2019					Patent application for Mykorich
Analysis of susceptibility variants (Single Nucleotide Polymorphisms or SNPs) in candidate genes to unravel the genetic basis of preeclampsia/pregnancy-induced hypertension among Filipino women	Saloma, Cynthia	DIL CS NIMBB	General public, health/medical practitioners, researchers	2 Years	2014	2016	5,684,600.00	Terminated	Amosco M, Villar VAM, Naniong JMA, David-Bustamante LMG, Jose PA, Palmes-Saloma CP. 2016. VEGF-A and VEGFR1 SNPs associate with preeclampsia in a Philippine population. Clinical and Experimental Hypertension 38, 578-585.				

Recombinant protein expression and immunological characterization of de-antigenized human influenza H3 hemagglutinin	Rivera, Wendell	DIL CS IB	General public, pharmaceutical companies, researchers	4 Years	2014	2018	16,346,364.00	Ongoing			2		Plasmid expansion using <i>E. coli</i> NovaBlue strain Propagation of induced transfected-Drosophila S2 cells	
Exploring the molecular mechanisms underlying the stress response and interspecies interactions of the soft coral, <i>Heliopora coerulea</i>	Conaco, Ma. Cecilia	DIL CS MSI	Researchers, academe	2 Years	2014	2016	5,225,670.00	Completed	Atrigenio MA, Aliño PM, Conaco C. 2017. Influence of the blue coral <i>Heliopora coerulea</i> on scleractinian coral larval recruitment. <i>Journal of Marine Biology</i> 2017, 6015143.	1		2	Developed an assembly of the <i>H. coerulea</i> reference transcriptome, comparative gene complement and gene history analysis, differential gene expression analysis, description of the blue coral growth response under different controlled temperatures and a year-long monitoring of <i>in situ</i> growth of <i>H. coerulea</i> colonies in Bolinao, Pangasinan	
Effects of shaped filler reinforcement on the diffusion behavior of liquids in polymer composites	Pajarito, Bryan	DIL CEngg Dept. of Chem Engineering	Researchers, materials industry	2 Years	2014	2016	2,893,000.00	Completed	Pajarito BB, Dang-Awan Df, Felipe MAA, Handa KC. 2016. Desorption behavior of epoxy/amine-coated polyester triangular bar composites pre-exposed to acid environment. <i>Materials Science Forum V, 3-7</i> . Pajarito BB, Dang-Awan Df, Felipe MAA, Handa KC. 2016. Sorption and degradation behaviour of epoxy composites reinforced with amine-coated polyester triangular bars in acid environment. <i>Key Engineering Materials</i> 705, 93-97.	5				
Development of a nanoparticle-based biosensor for the rapid detection of <i>Escherichia coli</i> O157:H7 Strain Sakai	Fernando, Lilia	IB NIMBB BIOTECH	General public, meat producers, government agencies, researchers	2 Years	2014	2016	2,499,800.00	Terminated						
Protein engineering of the major storage protein of mungbean enhanced with bioactive peptides exhibiting hypocholesterolemic activity	Torio, Mary Ann	IB CAS Institute of Chemistry	Researchers	4 Years	2015	2019	10,000,000.00	Ongoing			3	4	1	Submitted a manuscript to KIMIKA for review.
Automated constructions of phylogenetic trees and networks of languages in the greater central Philippines by a feature-sensitive metric	Lemence, Richard	DIL CS Institute of Mathematics	Academe, researchers	2 Years	2015	2017	9,393,000.00	Ongoing Extended until March 2019			6	2		
Anthropological, mathematical symmetry and technical characterization of Cordillera textiles	Salvador-Amores, Analyn	BAG CSS Dept. of Social Anthropology	Researchers, academe, indigenous communities	2 Years	2016	2018	5,327,000.00	Ongoing Extended until December 2018						Developed a catalogue of Cordillera textiles (currently housed at the Museo Kordilyera) in UP Baguio Designed a portable reflectance transformation imaging (PRTI) setup
Mathematical analysis of climate-based malaria transmission model with age-structured population	Addawe, Joel	BAG CS Dept. of Mathematics and Computer Science	Researchers, academe	2 Years	2015	2017	1,018,280.00	Terminated	Addawe J, Pajimola AK. 2016. Dynamics of climate-based malaria transmission model with age structured human population. <i>AIP Conference Proceedings</i> 1782, Article no. 040002.			2		Presentations in international and national conferences
The analysis of Bernoulli free boundary problem using the velocity method and second-order perturbation of identity technique	Bacani, Jerico	BAG CS Dept. of Mathematics and Computer Science	Researchers, academe	2 Years	2014	2016	2,090,560.00	Terminated	Bacani JB, Rabago JFT. 2015. On the second-order shape derivative of the Kohn-Vogelius objective functional using the velocity method. <i>International Journal of Differential Equations</i> , Article ID 954836. Bacani JB, Peichi G. 2016. The second-order eulerian derivative of a shape functional of a free boundary problem. <i>IAENG International Journal of Applied Mathematics</i> 46, 425-436. Rabago JFT, Bacani JB. 2017. Shape optimization approach to the Bernoulli problem: A Lagrangian formulation. <i>IAENG International Journal of Applied Mathematics</i> 47, 417-424.			1		Presentations in international and national conferences

									Rabago, JF, Bacani, JB. 2018. Shape Optimization approach for solving the bernoulli problem by tracking the neumann data: a lagrangian formulation. Communications on Pure and Applied Analysis 17, 2683-2702.				
Overexpression, purification and characterization of a recombinant thermo-stable endoglucanase for effective hydrolysis of lignocellulosic materials	Tambalo, Richard	LB BIOTECH	Fuel industry, researchers	2 Years	2014	2016	2,500,000.00	Ongoing					Invention disclosure for "A recombinant thermo-acid stable endoglucanase for potential application in the high temperature-dilute acid hydrolysis of lignocellulosic materials" Patent application to be filed for "Use of thermo-acid stable endoglucanase in the high temperature-acid hydrolysis of lignocellulosic materials"
Development of scale-up production methodologies for recombinant enzymes towards commercialization	Garcia, Roberta	LB CA Institute of Plant Breeding	Farmers, researchers, industry	4 Years	2015	2019	9,358,900.00	Ongoing			1		
Philippine performance archive: Ritual, dance, theatre	Ick, Judy Celine	DIL CAL Dept. of English and Comparative Literature	Academe, students	2 Years	2016	2018	19,715,132.00	Terminated	Tiatco, SAP. 2017. "My American Dream". Dreaming of Broadway and West End in the Philippines. Palgrave Handbook of Musical Theatre Producers, ed. Laura MacDonald and William Everett. Palgrave Macmillan, 333-342. (Book Chapter) Tiatco, SAP. 2017. Performing like a Concert King or a Concert Queen: Compensatory Aesthetics in Producing an Original Filipino Musical. Palgrave Handbook of Musical Theatre Producers, ed. Laura MacDonald and William Everett. Palgrave Macmillan, 449-458. (Book Chapter) Tiatco, SAP. 2017. The Contemporary in Metropolitan Manila Theatre: Derivatives, Entangled and the Social Problem Play in Art Archive 01: A Collection of Essays on the Visual and Performing Arts, ed. Patricia Tumang. Manila: The Japan Foundation, 50-55 (Ebook: http://fmo.org.ph/events-and-courses/art-archive-01/) Tiatco, SAP, Javier JR, Landicho M. 2018. The Palo-palo in Batanes, Philippines: From Colonial Legacy to a Performance of Solidarity and Friendship. Asian Theatre Journal 35 (1), 1-18. Tiatco, SAP, Javier JR, Viray, BL. 2018. Chapter 3: The Philippine Performance Archive on Cultural Performances: The Archive as a Performative Cultural Memory and Pedagogy. Digital Humanities and New Ways of Thinking, ed. Ann Wing-bo Tso. Springer. (Book Chapter) Tiatco, SAP, Javier JR, Viray, BL. 2018. From Revolution to Figuration: A Genealogy of Protest Performances in the Philippines. In the Routledge Companion to Theatre and Politics, ed. Peter Eckersall and Helena Graham. London and NY: Routledge. 5. Tiatco, Sir Anril P. (Forthcoming, 2019). Panata, Pagtitipon, Pagdiriwang: A Preliminary Contextualization of Cultural Performances in the Philippines. Humanities Diliman 16 (1). 6. Retana, Wenceslao E. Noticias Historico-bibliograficas de el teatro em Filipinas desde sus origines hasta 1898 (1909) translated by Prof. Anna Maria Ygloraz. 7. Barrantes, Vicente. El Teatro Tagalo (1889). Translated by Prof. Elwin Ebreo.	2	6	Philippine Performance Archive project 1. Ick, Judy Celine. "The Forests of Silence: Global Shakespeare in the Philippines." The Stanford Global Shakespeare Encyclopedia. Stanford: Stanford University Press. (September 2018), pp. 26-34. 2. Ick, Judy Celine. (Forthcoming 2019) "Shakespeare in the Philippines." The Stanford Global Shakespeare Encyclopedia. Stanford: Stanford University Press. (http://www.sup.org/Shakespeare/) 3. Ick, Judy Celine. (Forthcoming 2019) "When All the World's a Digital Stage: Transmedial Shakespeare and Translational Pedagogy." Routledge Handbook of Shakespeare and Global Appropriation. Ed by Christy Desmet, Sujata Iyengar, and Miriam Jacobson, New York, Routledge. 4. Tiatco, Sir Anril and Bryan L. Viray. (Forthcoming, 2019). "From Revolution to Figuration: A Genealogy of Protest Performances in the Philippines." In Routledge Companion to Theatre and Politics, ed. by Peter Eckersall and Helena Graham. London and NY: Routledge. 5. Tiatco, Sir Anril P. (Forthcoming, 2019). Panata, Pagtitipon, Pagdiriwang: A Preliminary Contextualization of Cultural Performances in the Philippines. Humanities Diliman 16 (1). 6. Retana, Wenceslao E. Noticias Historico-bibliograficas de el teatro em Filipinas desde sus origines hasta 1898 (1909) translated by Prof. Anna Maria Ygloraz. 7. Barrantes, Vicente. El Teatro Tagalo (1889). Translated by Prof. Elwin Ebreo.	
Molecular and culture-based characterization of bacterial community from Mankelug Alkaline Spring in Pangasinan	Lantican, Nacita	LB CAS Institute of Biological Sciences	Researchers	2 Years	2015	2017	7,473,016.00	*2,976,005.00	Terminated		1	2	Collection of bacteria which can produce enzymes and/or bioactive compounds of industrial importance; Experimental protocol on next-generation sequencing of metagenomic 16S rDNA for bacterial community profiling. Experimental protocol on metaproteomic analyses of bacterial communities. Bioinformatic analyses pipeline for next-generation sequencing and metaproteomic data. Laboratory-scale optimization and production, and downstream processing protocols for enzymes and/or bioactive compounds

Creating cost-effective sensors and devices to understand climate change in the Philippines using archaeological and present data	Estacio, Elmer	DIL CS NIP	Researchers, academe	2 Years	2016	2018	15,102,773.08	Ongoing Extended until March 2019	Delos Santos R, Ozawa S, Mag-usara V, Azuma S, Tuico A, Copa V, Salvador A, Yamamoto K, Somintac AS, Kurihara K, Kitahara H, Tani M, Estacio ES. 2016. Cherenkov-phase-matched nonlinear optical detection and generation of terahertz radiation via GaAs with metal-coating. Optic Express 24, 24980-24988. Delos Santos R, Ozawa S, Mag-usara V, Azuma S, Tuico A, Copa V, Salvador A, Yamamoto K, Somintac AS, Kurihara K, Kitahara H, Tani M, Estacio ES. 2016. Cherenkov-type generation and detection of terahertz radiation in a GaAs with metal-coat structure. 2016 41st international conference on Infrared, Millimeter and Terahertz Waves (IRMWV-THz). Barretto-Tesorero, G, Hernandez, V. 2017. Power and Resilience: Flooding and occupation in a late-nineteenth century Philippine town. Frontiers of colonialism, 149-178. Bardolaza, HR, Vasquez, JDE, Delos Reyes, AE, Lopez, LP, Jr., Somintac, AS, Salvador, AA, Estacio, ES, Sarmago, RV. 2018. Temperature dependence of THz emission and junction electric field of GaAs - AlGaAs modulation - doped heterostructures with different AlGaAs spacer layer thicknesses. Journal of Materials Science: Materials in Electronics, 1-7. Delos Santos, R, Mag-usara, V, Tuico, A, Copa, V, Salvador, A, Yamamoto, K, Somintac, A, Kurihara, K, Kitahara, H, Tani, M, Estacio, E. 2018. Metal-coated <100> cut GaAs coupled to tapered parallel-plate waveguide for Cherenkov-phase-matched terahertz detection: Influence of crystal thickness. Journal of Infrared, Millimeter, and Terahertz Waves 39, 514-520.	7	1	1	Submitted manuscript "High resolution modeling of CO2 in Metro Manila" (submitted to Air Pollution Research) "117-Year climatology of Manila, Philippines" (submitted to Urban Climate)
Ten years after the Millenium Ecosystem Assessment of Laguna de Bay: Towards a sustainable future	Espaldon, Ma. Victoria	LB SESAM	General public, LGUs, LLDA, researchers, students	2 Years	2015	2017	9,930,328.00 *10,130,342.60	Terminated		4			Mentoring of graduate students from UP NIGS and UPLB SESAM Hosting of three fellows from the Pan Asia Risk Reduction Fellowship Program Convened a science and policy forum with the Laguna de Bay stakeholders
Conus structural exogenomics program	Lluisma, Arturo	DIL CS MSI	Researchers	2 Years	2015	2017	9,385,376.00	Terminated	Barghi N, Concepcion GP, Olivera BM, Lluisma AO. 2015. Comparison of the venom peptides and their expression in closely related conus species: Insights into adaptive post-speciation evolution of Conus exogenomes. Genome Biology and Evolution 7, 1797-1814. Barghi N, Concepcion GP, Olivera BM, Lluisma AO. 2016. Characterization of the complete mitochondrial genome of Conus tribblei Walls, 1977. Mitochondrial DNA. Part A 27, 4451-4452. Barghi N, Concepcion GP, Olivera BM, Lluisma AO. 2016. Structural features of conopeptide genes inferred from partial sequences of the Conus tribblei genome. Molecular Genetics and Genomics 291, 411-422.		8	1	Mendoza, CB, Masacupan, DJ, Batocoy, DC, Asuncion, XE, Sampaco, AR, Vios, VS, Barghi, N, Yu-Roberto, E, Lluisma, AO, Salvador-Reyes, LS. Conomorphins: Prey specific arsenal of conus eburneus. Nature Publishing Co. (Submitted Manuscript)
The mass transit system in Metro Manila: From tranvia to MRT, 1879-2014	Jose, Ricardo	DIL CSSP Third World Studies Center	Policy makers, LGUs, national agencies, academe, general public	2 Years	2015	2017	10,075,688.00	Terminated			6		MOA with National Archives of the Philippines (NAP) Launched a video documentary entitled "Tranvia: Ang Mga Riles ng Kamaynilaan"
In vitro release properties and in vivo biochemical activities of microencapsulated anthocyanin extracts prepared with duhat (<i>Syzygium cumini</i> (L.) and bignay (<i>Antidesma bunius</i> (V) Spreng)	Flores, Florendo	LB CA Institute of Food Science and Technology	General public, health practitioners, food processing industry, fruit industry, academe, researchers	2 Years	2016	2018	3,374,136.00 *3,148,624.00	Terminated					

Data science and society: Application in public education	David, Clarissa	DIL CMC	Academe, students	2 Years	2015	2017	8,955,796.00	Ongoing Extended until October 2018					
Profiling and functional characterization of novel mutations in EGFR cellular proliferation and cell survival pathways among Filipino young-onset, sporadic colorectal cancer patients	Garcia, Reynaldo	DIL CS NIMBB	General public, health/medical practitioners, researchers	2 Years	2015	2017	9,207,623.00 *11,083,255.57	Terminated		2	4	1	Out of the 51 wild type and canonical mutants targeted, a total of 32 gene constructs of NRAS, PIK3CA, PTEN, BRAF, KRAS and MEK1 have been successfully cloned into the mammalian expression pTarget. Presentations in international and local conferences
Forest Canopy Observation, Positioning and Investigation (Forest CANOP) Program: Developing Forest Canopy Science in the Philippines	Bantayan, Nathaniel	LB CFNR Institute of Renewable	LGUs, national agencies, academe, researchers	2 Years	2016	2018	9,909,703.00 *10,892,983.00	Terminated		6			Conducted tree inventory and detailed topographic mapping Conducted the Forest Canopy Genomics Workshop Presentations in international conferences
Learning tourism destinations: Creating functional partnerships and initiating positive change for sustainable tourism development in local economies	Mena, Miguela	DIL AIT	General public, LGUs, national agencies, academe	2 Years	2016	2018	5,456,000.00	Ongoing Extended until November 2018			4		Presentations in international conferences MOA with Holy Name University
Recombinant buffalo antibodies as a resource for diagnostics and therapeutics: Proof-of-concept and applications in Schistosomiasis	Opulencia, Rina	LB Institute of Biological Science	health/medical practitioners, Researchers, academe	2 Years	2017	2019	4,639,840.00	Ongoing			3		
Towards a molecular level understanding of essential oil-protein interactions and their applications as insect biocontrol agents	Junio, Hyas	DIL CS Institute of Chemistry	Researchers, academe	2 Years	2015	2017	9,841,772.00 *10,159,000.00	Terminated	Dacanay FND, Ladra MCJA, Junio HA, Nellas RB. 2017. Molecular affinity of mabolo extracts to an octopamine receptor of a fruit fly. Molecules 22, 1677.	1	3		
Development of bioactive cyclitides from Philippine biodiversity	Hernandez, Christine	DIL CS Institute of Chemistry	Researchers, academe	2 Years	2015	2017	7,499,048.00 *7,793,007.00	Terminated				3	
From genes to ecosystems: Understanding fruit bat species and genetic diversity and its ecological interactions with plants in tropical lowland forests, Palanan, Isabela, Philippines	Ong, Perry	DIL CS Institute of Biology	Researchers, national agencies, academe	2 Years	2015	2017	10,351,180.00 *13,496,462.20	Terminated	Duya MR, Fidelino J, Ong P. 2017. Spatial heterogeneity of fruit bats in a primary tropical lowland evergreen rainforest in northeastern Luzon, Philippines. ACTA Chiropterologica 19, 305-318.				
Crowdsourced sensing for student engagement in Science Education (CrowdSENSE)	Lamorena-Lim, Rheo	DIL CS Institute of Chemistry	Students, Academe	2 Years	2015	2017	7,723,672.00	Terminated				1	Fabrication of sensing kits from identified parts and generated design Paper has been accepted in the conference proceedings, CCECP 2018 Conference Proceedings: (Print ISSN: 2301-3761, E-periodical: 2301-377X) at http://chemistry-conf.org/accepted-papers/
Bugkos: Putting equitable development at the center of the Asian Century	Raquiz, Antoinette	DIL Asian Center	Policy makers, LGUs, national agencies, academe, NGOs, general public	2 Years	2015	2017 2018	5,449,780.00	Terminated				3	Public forum on comparative politics and economic development between the Philippines and Thailand
TiO2 based nanomaterials and nanocomposites as photoelectrocatalysts for the removal and sensing of synergistic organic pollutants	Yago, Allan Christopher	DIL CS Institute of Chemistry	Researchers, academe	2 Years	2015	2017	13,082,004.00 *2,534,004.00	Terminated				1	Mentoring of 1 MS student National Conference 31st Philippine Chemistry Congress, 13-15 April 2016, Iloilo City Judicpa, MA, Yago, AC. Preparation and Characterization of Bulk and Surface-modified of carbon paste electrodes with Titanium Dioxide(TiO2) nanoparticles. (Oral presentation) 31st Philippine Chemistry Congress, 13-15 April 2016, Iloilo Grand Hotel, Iloilo City Espenilla, MB, Maylem, GP, Payawan, LM, Conato. "Preparation and Properties of Transition Metal™ and Nitrogen (N)-Doped Titania Photocatalysts by Hydrothermal Synthesis" (oral presentation)

									De la Cruz RJ, Merino DI, Paras AT. 2017. Skew phi polar decompositions. Linear Algebra and its Applications 531, 129-140.						
									De la Cruz, RJ, Granario, DQ. 2018. Product of Symplectic normal matrices. Linear Algebra and its Applications 543, 162 - 172.						
Wavefront Engineering Research: Suppression of spurious diffraction orders	Hilario, Paul Leonard Atchong	DIL CEngg EEEI	Researchers, academe	2 Years	2015	2017	2,500,000.00	Terminated							
Philippine Studies on Primary Care-Pilot study in UP Diliman	Dans, Antonio Miguel	MAN College of Medicine	General public, health/medical practitioners, researchers	2 Years	2015	2017	16,013,212.00	Ongoing Extended until December 2018				1		Submitted article to Asia Pacific Journal of Public Health for review	
Interdisciplinary research on arts and culture of the Philippines	Buenconsejo, Jose	DIL College of Music Dept. of Musicology	General public, researchers, academe	2 Years	2015	2017 2018	9,629,925.00	Terminated						Saysay Himig anthology of recorded Philippine transcultural music Staged "Diwata ng Bayan" and "Putri Anak" at the Cultural Center of the Philippines Two manuscripts (Saysay Himig & Philippine Modernities: 1880-1941) have been accepted for publication by the UP Press Buenconsejo, Jose, Ed. Philippine Modernities: Music, Performing Arts, and Language. Quezon City: University of the Philippines Press, 2017. Tan, Arwin, ed. Saysay Himig: Anthology of Readings in Philippine Music History. Quezon City: University of the Philippines Press, 2018. Tan, Arwin, ed. Anthology of Transcultural Philippine Music. 3 CD's. Quezon City: UP College of Music, 2016. Maranan, Ed. Libretto of Diwata ng Bayan. Sinco, Carmela. Music of Diwata ng Bayan (conductor's score and parts and piano-vocal score). Villasis, Enrique and Juan Ekis. "Original" (Text) of Putri Anak de la Peña, Verne. Music of Putri Anak	
Multimedia and multidisciplinary teaching and learning materials	Afonso, Grace	OU	Students, academe	1 Year	2015	2016	9,500,000.00	Completed						Production of 100 Master Voices (multimedia materials for GE courses). Some of the videos are already available at TVUP (tvup.ph) VIDEOS(TVUP) Philippine Arts and Culture 1. Dansas na Ganap (Glecy Atienza) 2. Myth and Creative Imagination (Jose Neil Garcia) 3. Creative Writing in the Digital age (Jose Wendell Capili) 4. How I Write Stories (Jose Dalisay Jr.) 5. Manuel Conde: Defining Cinema for the Filipino (Nicanor Tiongson) 6. Film Literacy and Criticism (Roland Tolentino) 7. Singing at Nasionalismo (Neil Dolonicon) 8. Philippine Arts and Culture in the socio-historical Context of Nation, Region, and Globalization (Reuben Cahete) 9. What is Filipino Design, or is There One at All? (Leonardo Rosete) 10. Learning with Puppets: Educating through Theater (Amihan Ramolette) 11. Ecocriticism (Framing Disaster: Position and Tropes) (Flaudette Datuin) 12. Rizal Monuments and the Filipino Diaspora (Roberto Paulino) 13. Sosyolohiya at Singing: Sa Diwa ng Kuwentong Bayan (Clemen Aquino) 14. Cultural Performances in the Philippines (Anril Tiatico) 15. Philippine Arts and Culture/Women in the Arts (Brenda Fajardo)	

How safe are our roads? The components of post-crash response, safe roads and safe vehicles in road management, road safety index, and road legislations and management in making our roads safer	Sigua, Ricardo	DIL	LGUs, Researchers, Academe	5 Years	2018	2020	9,927,964.00	Ongoing					
Influences of maternal dietary intake and nutritional status on the microbiological and chemical compositions of breast milk from selected lactating Filipino women at 0 to 4 months postpartum	Gabriel, Alonzo A.			6 Years	2018	2019	5,000,000.00	Ongoing					