

Department of Science and Technology  
 Philippine Council for Industry, Energy and Emerging Technology Research and Development (PCIEERD)  
 Project Beneficiaries

Program/Project Title	Implementation Period		Implementing Agency	Location	Beneficiaries	FY 2012 Budget
	Start	Expected date of Completion				
<b>KRA 3: Rapid, Equitable &amp; Sustained Economic Growth</b>						
<b>Nanotechnology</b>						
Conjugated Diblock Copolymer Nanocomposite Heterojunctions- Nanostructured Materials for Improved Photovoltaics	1-Sep-11	31-Aug-13	IC -UP Diliman	NCR	Manufacturing industry	5,873,562.00
Development of Electrochemical SPR Sensing Using Electropolymerized MIPs and Nanomaterials for Detecting EDCs and Chemical Contaminants	16-Sep-10	15-Sep-13	IC -UP Diliman	NCR	Manufacturing industry	1,139,817.00
Development of DNA-based Nano-Biosensors for Food and Environmental Applications	1-Jan-12	1-Dec-14	BIOTECH-UPLB	Region IV-A	SMEs	7,091,711.00
Fabrication and Characterization of Tin Oxide-Silver Composite Nanomaterials Synthesized by Horizontal Vapor Phase Growth (HVPG) Technique for Antiheat and Antimicrobial Applications	16-May-12	15-May-13	DLSU	NCR	SMEs	999,996.00
<b>Biotechnology</b>						
<i>I. Utilization/Conversion of Sago Starch into Value-Added Products: Ethanol and Lactic Acid</i>						
I.1 Cloning and Expression of Raw Starch-Digesting Amylase Genes from <i>Saccharomycopsis fibuligera</i> and <i>Saccharomycopsis bubodii</i> for Direct Ethanol fermentation	1-Dec-11	30-Nov-12	UP Mindanao	Region XI	SMEs	460,544.00

I.2 Ethanol fermentation of Sago Starch using Raw Starch Digesting Amylases: Strategies for Ethanol Production without the Costly	1-Dec-11	30-Nov-12	UP Mindanao	Region XI	SMEs	790,774.00
I.3 Direct Lactic Acid Fermentation of Sago Starch without the costly starch pretreatment using Enterococcus faecium DMF78 : Pilot Scale	1-Dec-11	30-Nov-12	UP Mindanao	Region XI	SMEs	1,027,215.00
<i>II. SAGO BIORESOURCE ASSESSMENT FOR SUSTAINABLE INDUSTRY UTILIZATION USING RS, GEOSPATIAL, AND SUITABILITY</i>						
II.1 GIS-Assisted Assessment of Yield of Sago or Sustainable Industry Utilization	1-Dec-11	30-Nov-12	UP Mindanao	Region XI	Sago Industry	1,625,000.00
II.2 Mapping of Sago habitats from optical and radar images using suitability relationships	1-Dec-11	30-Nov-12	UP Mindanao and UP Diliman	Region XI/ NCR	Sago Industry	287,000.00
<i>III. SAGO BIORESOURCE CONSERVATION AND SAGO FLOUR PRODUCTION</i>						
III.1 Clonal Propagation of Sago Palm	1-Dec-11	30-Nov-12	UP Mindanao	Region XI	Sago Industry	450,933.00
III.2 Flour Production from Sago For Food and Non Food Uses	1-Dec-11	30-Nov-12	UP Mindanao	Region XI	Sago Industry	875,149.00
Fuel Ethanol Production from Lignocellulosic Feedstocks	1-Oct-12	31-Dec-13	BIOTECH-UPLB	Region IV-A	Transport Industry/ SMEs	10,000,000.00
<b>Genomics</b>						
Capability Building in Research and Development on Genomics: Establishment of the Philippine Genome Center DNA Sequencing Facility and the Bioinformatics	1-Dec-11	30-Nov-14	PGC- UP Diliman	NCR	Manufacturing Industry/ SMEs	79,610,000.00

Abaca Functional Genomics: High Throughput Discovery of Genes and Molecular	1-May-12	30-Apr-12	IPB-UPLB	Region IV-A	SMEs	8,299,895.00
Genomics and Functional Analysis of Traits of Saba/Cardaba Mutants with Resistance to Banana Bunchy Top Disease	1-May-12	30-Apr-12	UPLB	Region IV-A	Banana Industry	2,821,681.00
Varietal Development of Saba/Cardaba with Delayed Ripening Trait	1-May-12	30-Apr-12	IPB-UPLB	Region IV-A	Banana Industry	3,551,133.00
Novel Enzymes and Bioactive Compounds from Mangrove Metagenomes for Health, Industrial and Agricultural Applications	2012	2015	BIOTECH-UPLB	Region IV-A	SMEs	21,916,000.00
<b>Information &amp; Communications Technology</b>						
<i>Towards the Development of a Self-Improving and Ambient Emphatic Space: Data-centric , Multimodal Emphatic Modeling from Pluridisciplinary Discipline (6 projects)</i>	1-Apr-09	30-Mar-12	AdRIC, College of Computer Studies, DLSU	NCR	Empathic Computing research community Music Information and Retrieval research community	2,774,596.50
Development of Affect-sensitive Interfaces	1-Feb-11	31-Jan-12	AdMU	NCR	Students/Rese archers	916,000.00
<i>ERDT: ICT for Education: Interdisciplinary Signal Processing for Pinoys (ISIP)</i>						
Project 1. Digital Database of Filipino words (Bantay Wika)	15-Jul-11	14-Jul-13	Rhandley Cajote, EEEI-UP Diliman	NCR	Academe/ Students	498,370.00
Proj. 3. Real-time Closed Captioning for Filipino News	15-Jul-11	14-Jul-13	Federico M. Ang, EEEI-UP Diliman	NCR	Academe/ Students	446,555.00
<b>Electronics/Semiconductor Industry</b>						
Establishment of an Advanced Device and Materials Testing Laboratory for Semiconductor and Electronics Industry	1-Jan-12	31-Dec-12	ITDI-DOST	NCR	Manufacturing Industries	358,330,000.00
Prototyping and Testing Center for Electronics Industry	1-Oct-12	30-Sep-15	Mr. Vic Gruet		Electronics Industry	25,000,000.00

<i>R&amp;D on Smart Wire</i>	1-Oct-12	30-Sep-15	UP Diliman	NCR	Electronics Industry	25,000,000.00
<b>Photonics</b>						
Automated Rapid Reef Assessment System - Proj. 2 - Computerized Reef Assessment and Visualization (Year 3 of 3 years)	1-Jun-12	31-May-13	Mapua Institute of Technology	NCR	Coastal Communities/LGUs/Academe	2,436,070.20
<b>Industry</b>						
<i>Enhancement of Biotechnology Products and Services for Food, Feed and Other Agro-Industrial Applications</i>	1-Mar-12	28-Feb-12	Biotech/UPLB	Region IV-A	Food and Feed Industry	45,006,106.00
"Strengthening the Testing and Analytical Capabilities of the Regional Laboratories to Support the Competitiveness of Local Industries (STARLABS)	1-Jun-12	31-May-13	DOST Regional Offices	All Regions	SMEs	47,877,456.00
Design and Development of a Locally Fabricated Ultra High Temperature/High Temperature Short Time Pasteurizer	9-Nov-12	31-Jan-14	Batangas State University	Region IV-A	SMEs	7,593,303.85
<i>Program on Technological Support for the Upgrading of Local Cacao and Cocoa Industry (Project 1 to 4)</i>	Nov-12	Jan-15	ITDI/MIRDC/BIOTECH	NCR	Cocoa Industry	22,949,451.00
<b>Energy</b>						
Bench Scale Bioethanol Production from Sweet Sorghum as Feedstock			MMSU	Region I	Transport sector/SMEs	1,138,296.00
ICETT Activities						36,420.00
Improvement of Combined Water Hyacinth Chopper Harvester	2-Dec-11	31-Mar-12	Central Bicol State University of Agriculture	Region V	LGU, General Public	197,000.00
<b>Mining and Minerals</b>						<b>70,000,000.00</b>
<i>RESPONSIBLE MINING: Program 2-Biodiversity Assessment of Terrestrial and Aquatic Exosystems in Selected Mining Environs in Mindanao</i>						
Proj. 1- Assessment of Terrestrial Ecosystems in Selected Mining Environs in Mindanao	1-Sep-12	31-Aug-15	Caraga State University	Region XIII	Mining Industry	9,278,680.00

Proj. 2 - Assessment of Aquatic Ecosystems in Selected Mining Environs in Mindanao	1-Sep-12	31-Aug-15	Caraga State University	Region XIII	Mining Industry	5,671,951.00
Proj. 3- Monitoring, Assessment and Profiling of Artisanal and Small-Scale Mining in Key Areas in Mindanao	1-Sep-12	31-Aug-15	Caraga State University	Region XIII	Mining Industry	5,480,380.00
Proj. 4 - Contamination Pathway and Pollution Management of Mining in Mindanao	1-Sep-12	31-Aug-15	Caraga State University	Region XIII	Mining Industry	7,657,954.00
<i>RESPONSIBLE MINING: Program 3- Development and Verification of Appropriate Technologies for Responsible Mining</i>						
Proj.1 - Rehabilitation of Areas Affected by Nickel Mining in Surigao Provinces	1-Sep-12	31-Aug-15	Caraga State University	Region XIII	Mining Industry	1,726,976.00
Proj.2 - Rehabilitation of Mercury Contaminated Gold Mining Sites in South Cotabato	1-Sep-12	31-Aug-15	Caraga State University	Region XIII	Mining Industry	2,017,552.00
Proj. 3 - Alternative Technology For Processing of Chromite and Laterite Ores CRDUFE FE-NI-CR Alloy Production	1-Sep-12	31-Aug-15	Caraga State University	Region XIII	Mining Industry	3,433,780.00
Proj.4 - Dev't. of an Alternative Technologies for Small-Scale Gold Mining in CARAGA and South Cotabato Region	1-Sep-12	31-Aug-15	Caraga State University	Region XIII	Mining Industry	7,299,143.00
Proj. 5 - ICT Support to Responsible Mining in Mindanao	1-Sep-12	31-Aug-15	Caraga State University	Region XIII	Mining Industry	5,562,650.00