





# OBJECTIVES

**Pilot-test the tissue culture growth cabinet for enhanced mass propagation of embryos of coffee and makapuno.**

Design

# Project 2

# OBJECTIVES

**To be able to develop molecular-based method for determining the authenticity of green beans, roasted and ground coffee.**

Determine the best DNA extraction protocol from green beans, roasted and ground coffee;

Optimize the PCR protocol using DNA from green beans, roasted and ground coffee;

Evaluate the PCR success of universal primers for differentiating *Coffea* species from other plant contaminants;

Demonstrate the utility of the method in determining the authenticity of green beans, roasted and ground coffee; and

Determine the authenticity of green beans and roasted beans sold in the market.

# Project 3

	PhP 2,962,672.00
	1 year
	DOST - PCAARRD
	Non R&D
	NCRDEC, CvSU
	Project Leader : Gerry Castillo Project Staff : Mira Magcawas, Lorna Matel, Al Eugene Torres

# OBJECTIVES

**Enhance the food value chain for coffee in the CALABARZON towards improving agricultural productivity, competitiveness, efficiency and inclusive food sustainability.**

Enhance the food value chain for coffee in the CALABARZON by implementing key approaches to strengthen the network of stakeholders and processes involved in the production and value adding activities towards food resiliency in the new normal;  
Increase the volume of production of coffee by 30%;  
Improve the quality of produce of the farmers; and  
Ensure a sustainable food value chain for coffee in the region.

# Project 4

	PhP 200,000.00
	1 year
	CvSU Research Grant (CRG)
	Basic Research / Engineering & ICT



# OBJECTIVES

**Develop optimization models for a more profitable coffee-based production system.**

Determine the advantages and disadvantages of mono-cropping and intercropping systems of coffee production;

Develop an optimized profitable coffee intercropping production model; and

Create a model for a profitable and sustainable lowland arabica coffee production.



# OBJECTIVES

**Develop ergonomically-designed laboratory-scale coffee huller and dryer.**

- Design and develop coffee processing equipment such as dryer and huller;
- Evaluate the performance of the developed equipment;
- Optimize the performance of the equipment using computational engineering; and
- Determine the economic viability and acceptability of using the machine.

# Project 6

	PhP 200, 000.00
	2 years
	CvSU Research Grant

# OBJECTIVES

**The general objective of the project is to develop an integrated information systems for R&E operations of the NCRDEC.**

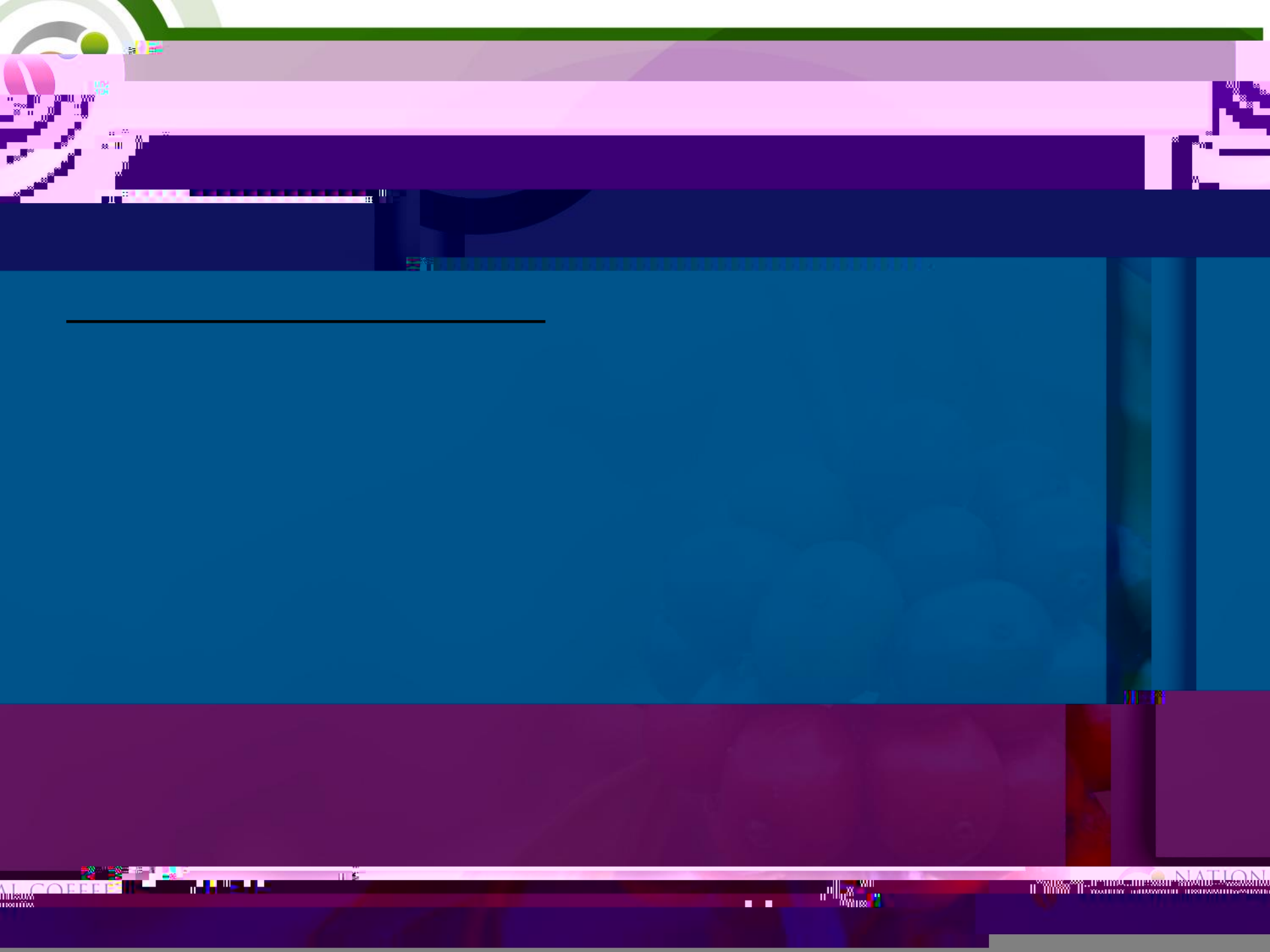
Design and develop information systems for visitor's database and training activities assessment;

Design and develop a GIS-based map of coffee demonstration and experimental areas; and

Test and evaluate the usability and performance of the developed information systems.

# Project 7

	PhP 200,000.00
	2 years
	CvSU Research Grant
	Biodiversity and Environmental Conservation
	NCRDEC, CvSU
	Project Leader : Al Eugene L. Torres Project Staff : Kris Rowell S. Garcia, Gerry M. Castillo, Antonette Jean L. Magcamit, Ric Karl T. Flores, Maowel A. Villanueva, Mark Jayvee M. Mojica, Gee Jay C. Bartolome







# OBJECTIVES

**Design and develop a laboratory-scale grading machine and storage equipment for green coffee beans.**

fabricate a prototype grading and storage equipment for green



# Project 1

	PhP 260,000.00
	2 years
	ACDI/VOCA PhilCAFE Project
	Basic Research/ Agri-Fisheries and Food Security
	NCRDEC, CvSU
	Project Leader : Antonette Jean L. Magcamit Project Staff : Maowel A. Villanueva & Danilo H. Mojica

# OBJECTIVES

**Investigate the performance of seedlings of various coffee genotypes grown in different containers under nursery conditions.**

determine the growth performance of the various coffee genotypes as affected by the type of seedling containers under nursery conditions.

determine the quality index of the various coffee genotypes using different seedling containers under nursery conditions  
conduct cost and return analysis of using various seedling containers

# Project 2

	PhP 1,764,374.40
	2 years

# OBJECTIVES

**Develop a small-scale coffee processing equipment for the NCRDEC.**

- design and develop coffee processing equipment such as sorting machine, automated depulper, blending machine, and packager for small-scale operation;
- test and evaluate the performance of the developed equipment;
- pilot-test the coffee dryer and huller to coffee processors;
- optimize the performance of the equipment using computational engineering;
- determine the economic viability of using the machine; and
- develop IEC materials and secure applications for patents of the developed machines.

# Project 3

	PhP 353,515.45
	2 years
	ACDI/VOCA PhilCAFE Project
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# OBJECTIVES

**Assess the effects of the endogenous microorganisms during wet-fermentation of Arabica coffee varieties on the cup quality and profiles.**

assess the number of culturable microbial groups using a corresponding selective medium

characterize the selected lactic acid bacteria (LAB) and yeast isolates as a potential starter culture candidates;

identify the candidate best starter cultures by analysis of 16S rRNA gene and ITS region sequences; and

determine the effect of starter cultures in wet-fermentation process on the cup quality and profiles of Arabica coffee.



# Project 4

	PhP 5,337,979.00
	2 years
	ACDI/VOCA PhilCAFE Project
	Non R&D/ Extension
	NCRDEC, CvSU
	Project Leader : Miriam D. Baltazar & Antonette Jean L. Magcamit Project Staff : Gerry Castillo, Al Eugene Torres, Danilo H. Mojica

# OBJECTIVES

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# Project 5

# OBJECTIVES

**Upgrade the knowledge management services of the NCRDEC thru scientific publication of the Philippine Coffee Journal**

perform an assessment of various POs in Regions 4 and 6;  
develop a website for the online submission of manuscript and online version of the journal;  
acquire an e-ISSN of the journal; and  
produce two printed and online publication issues.

# Project 6

	PhP 1,300,000.00

# OBJECTIVES

**Upgrade the existing NCRDEC nursery facilities.**

evaluate the existing coffee nursery of the Center;  
design and improve the features of the existing coffee nursery;  
construct a state-of-the-art nursery; and  
prepare an operational plan of the coffee nursery

# Project 7

	PhP 5,000,000.00
	1 year
	DA- ACEF
	Non-R&D/ Institution Development
	NCRDEC, CvSU
	Project Leader : GMCastillo Co-Project Leader : AELTorres

# OBJECTIVES

To

