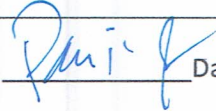


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TECHNOLOGY NEEDS ASSESSMENT (TNA) REPORT	
COMPANY:	Western Philippines University
ADDRESS:	WPU, Brgy. Sta. Monica, Puerto Princesa City, Palawan
SCOPE OF ASSESSMENT*	
A. Strategic Directions	
	Vision and Mission
	Plans
	Objectives
	Strategic Alliances and Current Agreements
B. Management Aspects	
	Human Resources
	Purchasing
	Work Environment
	Occupational Health and Safety Management
	Business Ethics and Social Responsibility
C. Technical Aspects	
1.	Operational & Outsourcing Practices
	Production System
	Production Planning and Control
	Production Lay-out
	Equipment Management and Maintenance
	Quality Assurance System
	Outsourcing Practices
2.	Product and Process Performance & Improvement
	Re-engineering and Research and Development
	Performance Measures and Results – Process
	Performance Measures and Results – Product
	Product Quality Standards
3.	Environmental Management System
	Waste management

* Scope of TNA is based on Technology Assessment Plan (TAP)

Reported by	PACIFICO T. SARIEGO III	Signature		Date	Oct-11-2023
	Name of TNA Team Leader				
Attested by	JERRY B. MERCADO	Signature		Date	
	Name of ARD				

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A. Strategic Directions**Objectives:**

1. To study indigenous crops present in the locality that have the potential of being infused with tempered chocolate to create new chocolate products, particularly its distribution and fruiting season.
2. Provide alternative markets to the cacao farmers of Palawan by exploring potential unique products with high market value.
3. Ensure that cost is minimal in the value-addition process by prioritizing underutilized indigenous crops.
4. To test the compatibility of indigenous crops with cacao present in Palawan for the formulation of new chocolate products
5. To conduct acceptability and cost analysis of the chocolate products developed.

Strategic Alliances:

-DOST-MIMAROPA

B. Management Aspects**Human Resources**

-The staffs for the project will be provided by WPU

Purchasing

-The purchasing will undergo the same procurement process as that of the government

Work Environment

-The conduct of the research will be held at the newly built Annex of Food Processing Center in WPU-Main Campus, Aborlan, Palawan. Consultations with chocolate experts could be held through Zoom, given the distance of the consultant.

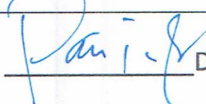
Occupational Health and Safety Management

-N/A

Business Ethics and Social Responsibility

-WPU has extension activities that involve providing free training and services in support of countryside development.

C. Technical Aspects

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1. Operational & Outsourcing Practices

-N/A

2. Product & Process Performance & Improvement

-N/A

3. Environmental Management System

-N/A

SUMMARY OF ASSESSMENT**BACKGROUND:**

The project aims to discover new chocolate products with the infusion of locally sourced cacao beans and indigenous crops to aid cacao farmers in marketing their cacao beans through value-addition, which will lead to the development of an R&D Program as part of iSTART's objective of engaging RSEs who will support technology-based investments and projects in the region. Special equipment for chocolate production, such as a cacao bean crusher and winnowing and chocolate melangeur, will be needed for the conduct of this research. The expertise of the project leader in botany and his assistant's expertise in food technology will greatly help in the realization of this project.

METHODOLOGY

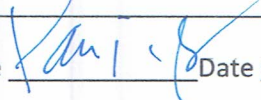
A one-on-one interview using a pre-assessment information sheet as a take-off point was conducted with the project focal.

SUMMARY OF FINDINGS

To realize the compatibility testing of indigenous crops with cacao for the formulation of new chocolate products, an R&D project needs to be implemented with the collaboration of experts in the fields of chocolate production, botany, and food technology and a funding agency that will provide the equipment necessary for the production of chocolate.

RECOMMENDATIONS:

- The provision of 1 unit of cacao bean dehuller, crusher, and winnowing, 1 unit of melangeur, and 1 unit of drying shed are necessary for the conduct of this R&D project.

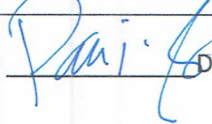
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- Some indigenous crops are seasonal which means some could not be obtained fresh at the time of the study. However, the technology of freeze drying is already available in the WPU Food processing center which enables the researchers to preserve the samples before the actual conduct of study. The researchers have yet to determine the quality of the created products with the use of freeze-dried samples of indigenous crops. Other limitations of this project are that if no Criollo cacao variety is available and the intended fruits are out of season, no raw material will be used in the experiment. Otherwise, the study will be hampered due to the unavailability of raw materials both cacao beans and the possible sources of indigenous fruits.
- All documents required by the DOST-SETUP Non-Core should be accomplished.

TNA Team Composition:

Team Leader: **PACIFICO T. SARIEGO III**
 Member: **NOEL B. SAMUDIO**

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