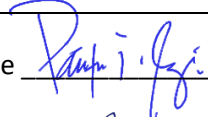



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TECHNOLOGY NEEDS ASSESSMENT (TNA) REPORT	
<b>COMPANY:</b>	<b>Western Philippines University</b>
<b>ADDRESS:</b>	<b>WPU, Brgy. Sta. Monica, Puerto Princesa City, Palawan</b>
SCOPE OF ASSESSMENT*	
<b>A. Strategic Directions</b>	
Vision and Mission	
Plans	
Objectives	
Strategic Alliances and Current Agreements	
<b>B. Management Aspects</b>	
Human Resources	
Purchasing	
Work Environment	
Occupational Health and Safety Management	
Business Ethics and Social Responsibility	
<b>C. Technical Aspects</b>	
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 <u>PACIFICO T. SARIEGO III</u>	Signature 	Date <u>01-10-2022</u>
Name of TNA Team Leader		
Attested by _____	Signature 	Date <u>01/17/2022</u>
Name of ARD		

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**A. Strategic Directions****Objectives:**Phase 2: ***Development of the Coconut Chips Air Fryer***

- a) Fabricate a food grade coconut chips air fryer.
- b) Evaluate the machine in terms of optimum capacity, cooking time, rate of moisture reduction, quality of chips using sensory and physico-chemical properties, and energy consumption at different predetermined amount of chips loading, cooking temperatures, and the angular speed of the air fryer.
- c) Attain a cooking capacity of not less than 5 kg/batch.
- d) Attain the required quality of chips in terms of taste, physical appearance such as color and texture, and crunchiness as prescribed by the industry partner quality control.
- e) Conduct pilot testing.
- f) Apply Intellectual Property Protection application.
- g) Transfer the machine to the partner industry.
- h) Conduct continuous monitoring, evaluation and assessment, and technical assistance to ensure sustainability.

**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

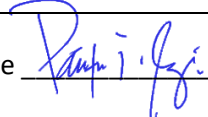

**Work Environment**

-The coconut chipper and air fryer will be fabricated at the Innovation Center, WPU, Aborlan, Palawan

**Occupational Health and Safety Management**

-N/A

**Business Ethics and Social Responsibility**

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

### C. Technical Aspects

#### 1. Operational & Outsourcing Practices

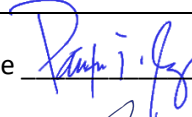

-N/A

#### 2. Product & Process Performance & Improvement

-N/A

#### 3. Environmental Management System

-N/A

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**SUMMARY OF ASSESSMENT****BACKGROUND:**

The project aims to design, fabricate, and test the required machines of Real's Food Products including 1 unit of Coconut Chipper which was already completed in the 1<sup>st</sup> phase of the project and 1 Unit of Air Fryer which will be fabricated in the 2<sup>nd</sup> phase of the project. The said machines will be used to achieve the standardization of one of the products of the firm called Coconut Chips to be able to compete globally.

**METHODOLOGY**

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

**SUMMARY OF FINDINGS**

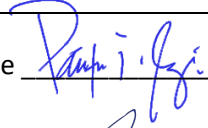

To standardize the coconut chips produced by Real's Food Products, machines that can provide consistency in production and appearance as well as provide support to the required volume of products to be produced are necessary. Hence, it is necessary to fabricate machines such as Coconut Chipper and Air Fryer which will be tailor-fit to the requirements of Real's Food Products.

**RECOMMENDATIONS:**

- To fabricate 1 unit of Air Fryer, it is recommended to purchase supplies and materials such as Machine stainless structural materials, prime mover and transmission systems, Heating systems and controllers, fabrication consumables, small fabrication equipment, performance evaluation meters, finishing materials and others
- All documents required by the DOST-SETUP Non-Core should be accomplished.

**TNA Team Composition:**

Team Leader: **PACIFICO T. SARIEGO III**  
 Member: **PHYLLICIA ANNE M. BAGUYO**

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