

Department of Science and Technology	Report No.	
	Page No.	
	Audit Date(s)	

TECHNOLOGY NEEDS ASSESSMENT (TNA) REPORT

COMPANY: Mindoro State University (MinSU)

ADDRESS: Masipit, Calapan City, Oriental Mindoro

SCOPE OF ASSESSMENT

- A. Strategic Directions
 - a. Vision and Mission
 - b. Goals and Objectives
 - c. Strategic Alliances
- B. Management Aspects
- C. Technical Aspects
- D. Marketing Aspects
- E. Financial Aspects


SUMMARY OF ASSESSMENT

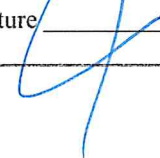
BACKGROUND

The Mindoro State University (MinSU) is a state college with flagship programs on agriculture, fishery, and vocational technology. As a higher education institution, it is mandated to conduct research, advanced studies, and progressive leadership on its flagship programs and in related fields for community development. Its main campus is in Victoria, Oriental Mindoro and has two (2) other campuses located in Calapan City and Bongabong.

METHODOLOGY

A one-on-one interview using a pre-assessment information sheet as a take-off point was conducted with Mr. Leonel C. Mendoza, OIC- Vice President for RDE

Reported by JESSE M. PINE Signature  Date September 15, 2023
 Name of TNA Team Leader

Attested by ENGR. JERRY B. MERCADO Signature  Date Sep. 16, 2023
 Name of ARD

Department of Science and Technology	Report No.	
	Page No.	
	Audit Date(s)	

SUMMARY OF FINDINGS

1. Strategic Direction

a. Vision and mission

For the next 10 years, the Research Centers are envisioned to have fueled the development of the Colleges into Centers for Development and Centers of Excellence.

b. Plans and Objectives

Development Plan of the Research, Extension and Development targets the establishment of Research Centers for each departments/Colleges that will serve as the research and development, and extension arm of the university. Capacity enhancement for research as well as physical development plan is focused on these centers.

c. Strategic alliances and current agreements

None


2. Management Aspect

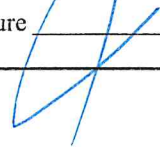
a. Human resources

Faculties are hired based on the needed fields that can teach courses being offered. Baccalaureate degree and professional eligibility is among the minimum requirement to become an Instructor in MinSU.

b. Purchasing

All purchases related to MinSU's operation will be made by the assigned personnel. Equipment to be provided by DOST-MIMAROPA will be purchased locally or in Manila and in Oriental Mindoro after a thorough canvass conducted beforehand.

Reported by JESSE M. PINE Signature  Date September 15, 2023
Name of TNA Team Leader

Attested by ENGR. JERRY B. MERCADO Signature  Date Sep. 16, 2023
Name of ARD

Department of Science and Technology	Report No.	
	Page No.	
	Audit Date(s)	

c. Work environment

MinSU is located in Masipit, Calapan City, Oriental Mindoro. MinSU will ensure that it will comply with standards set by the local government to operate safely.

d. Business ethics and social responsibility

MinSU hires people based on its criteria. Payment of proper taxes is observed.

e. Occupational health and safety management

Safety measures are observed.

3. Technical Aspect

a. Operational and outsourcing practices

Production system

The overall operation of the project will be administered by MinSU. A project staff from PSTO-Oriental Mindoro will be assigned to assist and monitor project implementation.

Production planning and control

N/A

Production layout


N/A

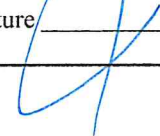
Work Study/Improvement

The MinSU will collaborate with technical experts from other local industry partners for further improvement of the implementation of the project.

Equipment management and maintenance

Inspection and maintenance of equipment will be strictly implemented.

Reported by JESSE M. PINE Signature  Date September 15, 2023
 Name of TNA Team Leader

Attested by ENGR. JERRY B. MERCADO Signature  Date sep 12, 2023
 Name of ARD

Department of Science and Technology	Report No.	
	Page No.	
	Audit Date(s)	

Quality assurance system

Pre and post-evaluation will be conducted before, during, and after the implementation of the project to monitor the effect of the provided technology in terms of measurable indicators and outcomes thereby ensuring the sustainability of the project.

b. Product and process performance and improvement Re-engineering and research development

Research and development will be conducted through collaboration with other agencies such as DOST-MIMAROPA through PSTO-Oriental Mindoro, PGOM-PAgO, and other government and private institutions.

Performance measures and results – Process

Product development activities will obtain standardized process settings and formulation of the identified three variants of RTE Arroz caldo. Should there be variations in each setting, these will correspond to heat penetration and commercial sterility tests.

Each final process and formulation for the identified variants, once past the preliminary analysis – sensory evaluation, commercial sterility, and heat penetration tests, will then undergo shelf-life test and nutritional analysis.

Performance measures and results – Product


Products are thoroughly analyzed during and after the development stage to ensure safety and compliance with regulatory standards. Research findings are carefully assessed/reviewed before publication to avoid any misinformation and inconveniences.

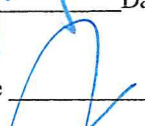
Procedures for continuous improvement

The institution collaborates with other appropriate agencies for continuous improvement.

Product quality standards

MinSU upholds quality and relevant research that will also meet the standards of both sponsoring and partner agencies.

Reported by JESSE M. PINE Signature  Date September 15, 2023
 Name of TNA Team Leader

Attested by ENGR. JERRY B. MERCADO Signature  Date Sep 20, 2023
 Name of ARD

Department of Science and Technology	Report No.	
	Page No.	
	Audit Date(s)	

Environmental management system

Waste management

Proper waste disposal is implemented by the institution to maintain environmental integrity.

4. Marketing Aspect

a. Marketing plan

N/A

b. Market outlets

N/A

c. Promotional activities

N/A

d. Market competitors

N/A

5. Finance

a. Cash flow and other related documents

MinSU has designated officers for the purpose.

b. Source of capital/credit


The institution has its own funds.

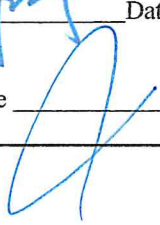
c. Accounting system

The company maintains the services of an accountant to comply with BIR requirements.

CONCLUSIONS

Based on the interview and ocular inspection the TNA team concludes the following:

Reported by JESSE M. PINE Signature  Date September 15, 2023
Name of TNA Team Leader

Attested by ENGR. JERRY B. MERCADO Signature  Date Sep 18, 2023
Name of ARD

Department of Science and Technology	Report No.	
	Page No.	
	Audit Date(s)	

1. The agricultural sector experienced a surplus of raw materials from time to time given to the overproduction of fresh produce thus resulting in low prices.
2. Additional processing steps are necessary to mitigate food wastage, given the susceptibility of agricultural products to spoilage.
3. Rice, as one of the main agricultural products in Oriental Mindoro can be value-added and offered as an emergency food.
4. MinSU has insufficient funds to conduct intensive product development with a complete analysis of high investment requirements.

RECOMMENDATIONS


The TNA team recommends the following:


1. Provision of technological assistance for the conduct of product development:
 - a) Procurement of analytical tools, raw and packaging materials for the conduct of product development;
 - b) Conduct monitoring of basic parameters such as pH, water activity, packaging integrity, and others;
 - c) Analysis of product during the development stage and after- commercial sterility, nutritional analysis, and shelf-life;
 - d) Filing the IP registration of the developed products before marketing.
2. MinSU to prepare and submit all the documentary requirements.

TNA Team Composition:

Team Leader: **JESSE M. PINE**

Members: **ZALDIE C. GAWAD**
MARIA CHRISTINE M. CARINGAL

Reported by JESSE M. PINE Signature  Date September 15, 2023
Name of TNA Team Leader

Attested by ENGR. JERRY B. MERCADO Signature  Date Sep 10, 2023
Name of ARD