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TECHNOLOGY NEEDS ASSESSMENT (TNA) REPORT

COMPANY:	STA. MARIA COCONUT FARMERS AND PROCESSING ASSOCIATION
ADDRESS:	BRGY. CONCEPCION SUR, STA. MARIA, ROMBLON

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

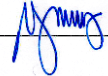
SUMMARY OF ASSESSMENT

BACKGROUND:

In 2020 a coconut processing plant was established at Sta Maria, Romblon to produce cooking oil for household and industrial use. The project aimed to help the coconut farmers through making copra prices stable and reasonable throughout the year. Similarly, the project will substitute the imported cooking oil coming from Lucena and the mainland Luzon for the Tablas Island.

The first phase of the project covered funds for the purchase of milling equipment such as expeller, filter press and boiler needed to produce crude coconut oil (CNO). On this phase counterpart funds from the LGU for the site and a building were solicited.

The second phase of the project completed the whole coconut production process from milling to produce CNO to refining to produce refined, bleached, deodorized oil (RBDO). Included in this phase were the provision of the following equipment: neutralizing, bleaching, deodorizing tanks, and leaf filter equipment. The facility was also equipped with generator set for back-up power source in the production. It is also in this phase that all equipment will be commissioned to realize the expected 1T/day output. In this phase also, counterpart funds from DOLE were solicited for the purchase of raw materials (copra) and some chemicals.

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For this 3rd and final phase of the project, establishment of wastewater treatment facility to comply with the regulatory requirements of DENR would be done. Conduct of training, commissioning/debugging, consultancy and project monitoring would also be included in this phase to ensure project sustainability.

METHODOLOGY

The technology needs assessment was conducted through an interview with the president, Mr. German Villostas and through an ocular inspection of the ongoing construction of the production area. Specific questions on core business functions were answered by the owner.

SUMMARY OF FINDINGS

1. Strategic Direction

a. Vision and mission

The association aims to become a more progressive association where members are free from danger and enjoy economic stability.

b. Plans and Objectives

Based on the "By Laws" of the association, the main objectives of the association are as follows:

- 1.To be a model association in a progressive municipality
- 2.To become movers of economic activities to have sufficient and sustainable supply of coconut oil
- 3.To help the coconut farmers in terms of employment and income
- 4.To coordinate with the local development councils in the implementation of important projects for the overall development of the community.

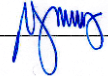
c. Strategic alliances and current agreements

The association has no other agreements and alliances from other firms except from other associations and some government agencies.

2. Management Aspect

a. Human resources

The association hires an applicant according to what position is available to be filled up. Minimum qualifications would be that applicants should have at least high school education, willing to work 5 days a week, passionate, and can do multitasking.

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b. Purchasing

The association would follow a schedule in purchasing needed materials per month. Also, they purchase from the local market to satisfy the production according to demand.

c. Work environment

The building for the RBDO production will be the counterpart of the LGU-Sta. Maria. They will facilitate the construction of the building that will be compliant to food safety. The association will also ensure accesibility of the facility for easy transport of raw materials and finished products.

d. Business ethics and social responsibility

The association spearheads activities for the improvement of their coomunity. They also leads a number of corporate social responsibility events that would benefit their constituents.

e. Occupational health and safety management

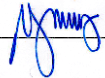
The association has their own safety measures they practice in their production. First-aid kits and fire extinguishers were made conspicuous for easy access.

3. Technical Aspect**a. Operational and outsourcing practices****Production system**

The association together with the LGU-Sta. Maria would produce RBDO, copra meal and soap stocks. These products will be made out from the abundant supply of coconut this province have. Training to meet the standards of producing such will be given by facilitated by the DA and assistance from the PSTC can be sought in case needed.

Production planning and control

The project's business plan indicates a schedule and target on the production of each products. Through this, success on the income generation and products' life span will still meet the standards of the market. The association and the cooperating LGU will be up to satisfy demand and orders in case stocks of their upshots will be deficient.

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Production layout

The association is planning to establish an organized layout for the project. They would ensure that the layout could accommodate the bulk orders of the clients.

Work Study/Improvement

The association is keen to conduct R&D for better products the market is looking for. Various researches to make an RBDO more appealing to the market will also be done by the association. Enhancements on the product quality itself and the packaging may also be given by the PSTC.

Equipment management and maintenance

Equipment for RBDO production is currently for delivery to the production area. However, should this project be approved, they will make sure that the equipment provided would be thoroughly maintained through cleaning and sanitation before and after production. They will also perform regular preventive maintenance to preserve their equipment's functionality.

Quality assurance system

The association has no quality assurance system as of the moment but ensures quality in every service and product they are giving to their clients.

Outsourcing practices

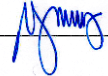
The association does not outsource any of their operations. Raw materials are also available in the locality, outsourcing is not a practice of the firm.

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

Although not formally established, the proponents would conduct research and development for better product output. They benchmark best practices from renowned establishments and adapt smarter equipment for their production.

Performance measures and results – Process

The proponent's process flow would be documented and memorized and skillfully applied by its employees. The head would carefully ensure that the

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process is strictly followed by the workers.

Performance measures and results – Product

The proponent would strictly observe consistent quality for its products. A designated personnel by the head is in-charge of quality control and the head does the final checking for the delivery of the products to its clients and its final users.

Procedures for continuous improvement

The proponent would primarily do better on their RBDO production. They apply variations and improvements to their products to continuously win customers. This is not documented, however.

Product quality standards

Standards on quality of RBDO products are neglected somehow by the firm. However, the firm adheres to quality production system to produce quality products.

c. Environmental management system

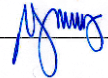
Waste management

The association is always in the eye of proper waste segregation of biodegradable from non-biodegradable. Also, it has a scheduled waste collection to every establishments which the cooperative is usually aware of and complies with. The proposed intervention would also ensure necessary waste management in terms of treating wastewater from the plant.

4. Marketing Aspect

a. Marketing plan

With the projected stability in copra and cooking oil prices, the business is sure to profit and many coconut farmers would benefit from it. Compared to products coming in from Lucena or Batangas, the locally produced oil would be cheaper but comparable in quality. Compared against palm and other vegetable oils on the other hand, coco nut oil fares better since it is far more superior in terms of its organic properties and is preferred by food processing enterprises. These advantages of the product would be highlighted in the marketing strategies of the project. Copra would be bought at a standardized price. The

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association, however, would place a premium price for copra that is sun dried. Pricing for the product would be relatively low as raw materials are locally sourced and rate of labor is low in the province. To build following and brand loyalty, the association would ensure the best quality and may also opt to even lower the prices as much as possible. Promotion on the other hand would be by word of mouth, advertisements, press releases and market presence. Moreover, the product shall be promoted during the Annual General Assembly of cooperatives where thousands of coop members converge. The market for the business is the whole province. The population of 300,000 people is estimated to constitute about 50,000 households. If a household consumes one bottle (350ml) cooking oil per week, the province needs 840,000 liters of cooking oil annually. At the target production rate of at least 1,000 per day, the plant would not be able to sufficiently address the demand of the province.

b. Market outlets

None yet

c. Promotional activities

The association would maximize word of mouth as their primary promotion. Meanwhile, members would also use the trimedia to expand promotion and reach an extensive potential buyers.

d. Market competitors

Competitors of the organization for the RBDO are the cooking oil outsourced from the different cooking oil companies that are imported in the province. This will not be a threat for them though as market for cooking oil is very extensive and demanding.

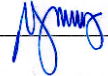
5. Finance

a. Cash flow and other related documents

The association has a designated personnel to ensure the smooth cash flow and financial transactions of the association.

b. Source of capital/credit

The association sources out their capital to its members contribution and to its other income generating project. They also secured other capital from

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various government agencies that helped them put up the plant.

c. Accounting system

The association has a finance and administrative department that is in-charge of managing its finances.

CONCLUSIONS:

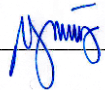
Based on the interview and ocular inspection, the TNA team concludes the following:

1. The proponent has an organized management that is willing to engage in RBDO production and further improve on it. The proposed location could carry additional equipment, manpower movement and new processes.
2. The proponent has good management skills manufacturing processes but still lacks standards. Training and other intervention are still needed.
3. The needed intervention applied under GIA would establish a wastewater treatment facility for the RBDO plant to ensure environmental conservation and to comply with the DENR regulations.

RECOMMENDATIONS:

The following are recommended by the TNA team:

1. DOST MIMAROPA should extend assistance to the firm to establish a wastewater treatment facility for the RBDO plant to ensure environmental conservation and to comply with the DENR regulations.
2. If needed the DOST MIMAROPA should assist the firm in training particularly on cGMP and CAMPI programs.
3. The proponents should submit additional requirements to go with the proposal.

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