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TECHNOLOGY NEEDS ASSESSMENT (TNA) REPORT	
COMPANY:	LGU-Banton Solid Waste Management Office (SWMO)
ADDRESS:	Poblacion, Banton, 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

Banton island remains to be a fifth-class municipality despite its vigorous implementation of infrastructure and developmental projects. One of its pressing challenges is the increasing solid waste and the lack of appropriate technologies for solid waste management. In the past, the municipality disposes its solid wastes in an open dumpsite. However, in February 2021 the DENR-EMB ordered the official closure of the dumpsite because of its incompliance to environmental standards. The municipality since then resorted to dumping its residual wastes in a Residuals Containment Area (RCA) and its recyclable wastes in the municipality's central Material Recovery Facility (MRF). With the island's solid waste generation rate of 3T/month on the average, the RCA and the MRF is now fully packed.

#### METHODOLOGY

The technology needs assessment was conducted through an interview with the LGU's municipal solid waste management officer, Mr. Patrick Fedilus and through an ocular inspection of the LGU's proposed area. Specific questions on core business functions were answered by the president.

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Attested by <u>JERRY B. MERCADO</u> Name of ARD	Signature 	Date <u>May 31, 2021</u>

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**SUMMARY OF FINDINGS****1. Strategic Direction****a. Vision and mission**

Vision: Banton as a peaceful heritage island – home to vibrant, empowered, and economically-sustained citizens driven by agriculture and eco-tourism through safe and efficient infrastructure in harmony with God and the environment under the stewardship of responsible government.

Mission: To promote the socio-economic well-being of the people through the provision of infrastructure and the preservation of the ecologically balanced environment and cultural heritage through sustainable development.

**b. Plans and Objectives**

Please refer to the 10-year solid waste management plan of LGU

**c. Strategic alliances and current agreements**

Partnership with the existing junk shops would also be forged to maximize the production of cement bricks, and the plastic shreds and glass powder. Below is the sample plastic and glass shredder/crusher proposed in this project.

**2. Management Aspect****a. Human resources**


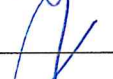
To ensure the operator's commitment, he/she will be remunerated with a minimum basic salary of PhP301/day or an average of PhP6,000 per month charged under the Office of the Mayo's fund.

**b. Purchasing**

N/A

**c. Work environment**

The LGU has a proposed building where production could be done. It is also willing to improve it and effect changes according to current Good Manufacturing Practices.

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**d. Business ethics and social responsibility**

N/A

**e. Occupational health and safety management**

N/A

**3. Technical Aspect**

**a. Operational and outsourcing practices**

**Production system**

N/A (production/operation will start upon approval of the project)

**Production planning and control**

N/A

**Production layout**

The LGU is willing to renovate, improve, and effect changes to the proposed building for the project according to current Good Manufacturing Practices.

**Work Study/Improvement**

The LGU is up for progress, and this drives its constituents to thrive harder for improvement especially for the benefit of many. Research and Development and other related activities are encouraged by the LGU's management.

**Equipment management and maintenance**

N/A

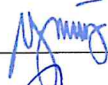

**Quality assurance system**

N/A

**Outsourcing practices**

N/A

**b. Product and process performance and improvement**

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**Re-engineering and research development**

Although not formally established, the LGU will try to conduct research and development for better project implementation and to increase their productivity. They will also benchmark best practices from renowned municipalities and provinces that have an organized waste management to ensure success of the project.

**Performance measures and results – Process**

N/A

**Performance measures and results – Product**

N/A

**Procedures for continuous improvement**

N/A

**Product quality standards**



N/A

**c. Environmental management system**
**Waste management**

N/A

**4. Marketing Aspect**
**a. Marketing plan**

Appropriate proportions of cement, plastic shreds, and glass powder would be explored through conduct of testing for strength and durability of the prototype cement bricks. Once the proportion is finalized and standardized, production of cement bricks will follow. Though the operating costs would be shouldered by the LGU, additional income generation could be explored through selling the cement bricks or the plastic shreds and glass powder to local buyers or to the junk shops and traders who sell raw materials to manufacturers in Manila. To maximize production, the LGU also plans to regularly donate cement bricks to schools in the municipality for their landscaping projects. Moreover, the LGU's 10-year solid-waste management plan (2020-2030) includes a yearly Barangay Solid Waste Management Contest. This contest would require participants to use the cement

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bricks for any innovative projects that would improve the aesthetics and functionality of the island. As a result, it would help in maximizing the production of cement bricks with the plastic and glass additives.

**b. Market outlets**

N/A

**c. Promotional activities**

The LGU would use word-of-mouth as major promotional strategy. Social media platforms would also be explored though.

**d. Market competitors**

N/A

**5. Finance**

**a. Cash flow and other related documents**

N/A

**b. Source of capital/credit**

N/A



**c. Accounting system**

N/A

**CONCLUSIONS**

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

1. The LGU has an organized management and has the willingness to venture out on solid waste processing to reduce its increasing solid wastes and to develop a more useful product such as the cement bricks with plastic shreds and crushed glass additives. The LGU also aims to provide employment for its constituents and to contribute to environment protection in the island municipality. The proposed area for the operation could carry the target equipment, workforce and new processes.
2. The LGU has interested and active constituents and officers who are inspired and are willing to improve their skills to engage in operation. Training and other interventions are still needed though.

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3. The proposed intervention under the GIA-CEST would further enhance the LGU's productivity, provide additional source of income for their members and help them in their environment conservation initiatives.



### RECOMMENDATIONS

The following are recommended by the TNA team:

1. DOST MIMAROPA should extend assistance to the group to improve production capacity, and productivity by providing funds for the purchase of processing equipment such as plastic shredder and glass crusher/pulverizer.
2. If needed the DOST MIMAROPA should assist the firm in training particularly on MPEX, CPT, cGMP and CAMPI programs.
3. The group should submit additional requirements to go with the proposal.

### TNA Team:

Team Leader: Marcelina V. Servañez  
Members: Mae Angelica F. Famini  
Ma. Lilian Rose M. Galit

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