

DOST Form 3
NON-R&D PROJECT PROPOSAL
 (Technology Transfer, S&T Promotion and Linkages, Policy Advocacy,
 Provision of S&T Services, Human Resource Development and Capacity-Building)

I. PROJECT PROFILE

(1) Program Title: Grants-in-Aid (GIA) Project Title: Solid Waste Management through Junk Compactor Technology for Romblon's Top Tourist Destinations				
(2) Project Leader/Sex: Agency (smallest unit): Address/Telephone/Fax/Email (Barangay, Municipality, District, Province, Region):				
Hon. Gerard Montojo	LGU-Romblon	Barangay IV-Poblacion, Romblon, Romblon		
Hon. Egdon Sombilon	LGU-San Jose	Barangay Poblacion, San Jose, Romblon		
Hon. Marvin Ramos	LGU-Cajidiocan	Barangay Poblacion, Cajidiocan, Romblon		
(3) Cooperating Agency/ies (Name/s and Address/es): LGU-Romblon, LGU, San Jose, LGU-Cajidiocan				
(4) Implementing Agency (Municipality / District / Province / Region) Base Station: Romblon, San Jose and Cajidiocan, Romblon, MIMAROPA Region Other Implementation Site (s): <u>None</u>				
(5) Project Duration (number of months): 12 months implementation, 24 months monitoring Project Start Date: January 2025 Project End Date: December 2027				
(6) Total Project Cost: PhP3,961,000.00 (indicate Counterpart Funds; use Form 4 for the Line-Item Budget)				
Implementing Agency/ies	PS	MOOE	EO	Total
A. Requested Fund				
GIA		PhP319,592.00	PhP 906,100.00	PhP1,225,692.00
B. Counterpart Fund 1		MOOE	Fixed Assets	
LGU-Romblon	PhP264,000.00	PhP100,000.00	PhP1,500,000.00	PhP1,864,000.00
C. Counterpart Fund 2		MOOE	Fixed Assets	
LGU-San Jose	PhP264,000.00	PhP100,000.00	PhP2,000,000.00	PhP2,364,000.00
D. Counterpart Fund 3		MOOE	Fixed Assets	
LGU-Cajidiocan	PhP264,000.00	PhP100,000.00	PhP5,000,000.00	PhP5,364,000.00
TOTAL	PhP792,000.00	PhP619,592.00	PhP9,406,100.00	PhP10,817,692.00

II. PROJECT SUMMARY

(7) Executive Summary (not to exceed 200 words)	<p>Tourism often leads to increased generation of solid waste due to higher consumption levels, packaging waste, and disposal habits of tourists. While there are existing policies implemented by LGUs on solid waste management, the influx strains local waste management infrastructure which poses a challenge on marine biodiversity, environment and public health. This project aims to elevate the solid waste management capabilities of key tourism areas in the Romblon province by providing junk compactor technologies to LGU beneficiaries. This will be co-funded by the Local Government Units (LGUs) of Romblon, San Jose and Cajidiocan. The Department of Science and Technology – MIMAROPA (DOST-MIMAROPA) through its Provincial Science and Technology Office in Romblon (PSTO-Romblon) will monitor the implementation of the project.</p>
(8) Introduction (Not to exceed 15 pages)	<p>Rationale/Significance (Not to exceed 300 words)</p> <p>Situated in the heart of the Philippines, the archipelagic province of Romblon lies in the MIMAROPA region. It is composed mainly of three big islands, namely, Romblon, the provincial capital; Tablas, the largest island covering the municipalities of Calatrava, San Agustin, San Andres, Santa Maria, Odiongan, Ferrol, Looc, Alcantara, and Santa Fe; and Sibuyan which covers the municipalities of Magdiwang, San Fernando, and Cajidiocan. The province also has island municipalities, namely, Corcuera, San Jose, Banton and Concepcion, and a few more isles. It is situated in the south of Marinduque and Quezon, east of Oriental Mindoro, north of Aklan and Capiz, and west of Masbate.</p> <p>The province has become one of the places frequented by tourists. Its natural attractions include numerous beaches, diving sites, rivers, and falls, the most popular of which are Bonbon, Cobrador and Tiamban in Romblon; Cresta de</p>

Gallo in San Fernando; Cawa-cawa and Gomot Falls in Cajidiocan; and Lanas and Bignay Beach in San Jose, that is only an hour boat ride from Boracay. Considered to be the “Galapagos of Asia”, the Sibuyan Island attracts enthusiasts due to its well-preserved natural environment. As one of the mountains with high trail difficulty due to its steep and jagged summit, mountain climbers frequent Mount Guiting-Guiting, also in Sibuyan Island.

The rise in tourism contributed to an increase in the economic activities in the province. While it provided economic opportunities such as creating jobs and generating income for businesses, the influx of tourists comes with an escalation in the volume of waste generated and may pose environmental concerns. With this, it's imperative to implement proactive measures to mitigate the possible negative impact on the environment and public health, and promote sustainable eco-tourism.

Objectives (General and Specific)

Generally, the project aims to enhance the solid waste management practices of key tourism areas in the province.

Specifically, it seeks to:

1. Provide junk compactor technologies to three (3) tourism municipalities;
2. Compact an average of 1,000kg of waste in San Jose, and an average of 500kg waste in Romblon and Cajidiocan;
3. Generate at least three direct employments, one each from LGUs-Romblon, San Jose and Cajidiocan who will operate the junk compactor; and
4. Provide capability building activities on equipment operation and maintenance.

Methodology

In the recently concluded Best Practices for Municipal Solid Waste Management in the Province of Romblon: The Quest, it was found out that the three municipalities that need to enhance their solid waste management practices are Romblon, San Jose and Cajidiocan. This was based on the effectiveness of the current practices on collection, segregation and disposal; compliance with environmental regulations; adoption of waste management technology methods; and integration of social, economic, and environmental aspects.

The staff from the PSTO-Romblon held a Technology Needs Assessment (TNA) to further investigate the gaps and explore possible innovative solutions that may address this environmental concern.

In a report provided by the Municipal Environment and Natural Resources Officer (MENRO) of the municipality of San Jose, an estimated 2 tons of marine litter were collected, 70% of which were PET bottles. Interestingly, these drinks were not locally available in the island and were found to be manufactured in Buatan, Malaysia. The island municipality also periodically experiences a surge in collected marine litters in its coastline brought by the Southwest Monsoon (Habagat). This usually occurs in August to November. The waste collected are composed mainly of PET bottles.

In addition to the coastal wastes collected, the top sources of daily wastes collected in the island are biodegradable wastes and recyclables. While biodegradable waste is the top contributor, it is the least concern in terms of solid waste management. This is mainly because most of the barangays in the municipality are rural, where agricultural wastes are used as fertilizers for crops and composting and food waste are fed to their livestock and farm animals.

Meanwhile, in the municipality of Romblon, the average coastal waste collected by the municipality is 32 sacks, where 14 sacks contain 70 kgs of plastic bottles in normal conditions. During the western monsoon, wastes collected escalate to 87 sacks, 217kgs of which are purely plastic bottles. In the recent coastal cleanup in 2023, the municipality collected a total of 492 sacks of waste which weighs 1,273.65 kgs. Majority of the wastes are plastic food wrappers and beverage plastic bottles.

Furthermore, the distribution of waste collected daily is as follows: 450kgs for non-biodegradable waste, 300kgs for biodegradable waste, and 250 kgs of residual waste. Majority of these non-biodegradable wastes are plastic wrappers and plastic bottles.

A similar situation is experienced in the municipality of Cajidiocan. Majority (36%) of wastes collected daily are recyclables, followed by biodegradable wastes (33%), which weigh 166kg and 155kg, respectively.

The three municipalities usually sell the bulky recyclables to junkshops, at Php3/kg, which are then sold to Lucena City, Caticlan, Malay, Aklan and Tablas Island. However, as island municipalities, the transportation cost from the island to the mainlands is expensive. Wastes that are bulky consume more space in trucks resulting to high transport

cost and lesser revenue. Additionally, recyclables such as plastic bottles which are sold in bulk have a low value. They are practically unsellable.

Results of the TNA revealed the need to acquire technologies that optimizes space during transport of wastes to help municipalities improve its waste management. Since plastic bottles dominate the wastes collected in these tourism areas, the proposed technology is junk compactor which will reduce the bulky size of collected bottles, thereby increasing transport capacity of trucks. Tightly compacted waste consumes less space, allowing more materials to fit in a single flight, resulting in higher revenue and improved efficiency. Correspondingly, wastes will be more sellable, and the transportation costs of the compacted wastes will be relatively cheaper.

Expected Outputs (6Ps):

The project is expected to provide innovative solution to address the gaps and challenges in waste management in key tourism areas. In terms of physical targets, the following are expected:

Publication	at least 1 feature article about the project
Patent/ Intellectual Property	None
Product	None
People Service	at least three (3) operators are trained on equipment operation and maintenance
Place and Partnership	LGU-Romblon, LGU-San Jose, LGU-Cajidiocan
Policy	None

Potential Outcomes:

1. Enhanced solid waste management capabilities of key tourism areas
2. Mitigated impact of tourism on marine biodiversity, environment and public health
3. Promote sustainable eco-tourism

Potential Impacts (2Is):

Social Impact

1. Promotion of sustainable eco-tourism whilst protecting marine biodiversity, physical environment and public health
2. Community empowerment by involving local communities in waste management initiatives

Economic impact

1. Job creation for locals and income generation through responsible tourism
2. Increased economic activities that will benefit not just the tourism sector but all other related sectors as well
3. Promotion of key tourism areas

Target Beneficiaries:

The project will directly benefit the whole municipalities of San Jose, Romblon and Cajidiocan as it also protects public health. The environmental offices in the municipalities will also be empowered since an additional junk compactor technology will be deployed in their facilities.

Sustainability Plan (if applicable):

The DOST-MIMAROPA, through its PSTO-Romblon, and the LGUs of Romblon, San Jose and Cajidiocan will work collaboratively to ensure the long-term sustainability of the project. PSTO-Romblon will assign a staff who will monitor the project to ensure that deliverables are met. The LGUs will assign personnel who will oversee the facility and operate the technology. Similarly, trainings on the operation on maintenance of equipment will be provided to capacitate the operators, optimize the utilization of the technology and guarantee its longer service life.

Gender and Development (GAD) Score (refer to the attached GAD checklist):

Risk analysis (refer to the attached risks and assumptions):
(9) Workplan (See Form 5)
(10) Project Management (not to exceed one page)
The project will be implemented through collaborative efforts of DOST MIMAROPA through the PSTO-Romblon, and the LGUs of Romblon, San Jose and Cajidiocan. The designated MENRO of the LGUs, in close coordination with PSTO-Romblon, will be responsible in project monitoring and report submission. The LGUs will assign the personnel who will operate and maintain the junk compactor technology. The project stakeholders will actively participate in project monitoring to ensure that objectives are successfully achieved.

III. OTHER SUPPORTING DOCUMENTS REQUIRED (Please refer to page 2 for the additional necessary documents.)



DOST Form 4

DEPARTMENT OF SCIENCE AND TECHNOLOGY
Project Line-Item Budget
CY 2023

Program Title : Grants-in-Aid (GIA)
 Project Title : Solid Waste Management through Junk Compactor Technology
 : for Romblon's Top Tourist Destinations
 Implementing Agency : LGU-San Jose, Romblon and Cajidiocan
 Total Duration : 1 year for project implementation / 2 years for monitoring of outcomes
 Current Duration : 1 year
 Cooperating Agency :
 Program Leader : Dr. Ma. Josefina P. Abilay
 Project Leader : Hon. Gerard Montojo; Hon. Egdon Sombilon; Hon. Marvin Ramos
 Monitoring Agency : DOST-MIMAROPA PSTO-Romblon

		Counterpart Funding			
		DOST-MIMAROPA	LGU-San Jose	LGU-Romblon	LGU-Cajidiocan
I. Personal Services					
Salaries					
1 Operators @ P11,000/mo x 12 mos			264,000.00	264,000.00	264,000.00
Sub-Total for PS	P		264,000.00	264,000.00	264,000.00
II. Maintenance and Other Operating Expenses					
Traveling Expenses					
Local		100,000.00	48,320.00	48,320.00	48,320.00
Supplies and Materials Expenses					
Office Supplies Expenses		20,000.00			
Electricity Expenses			31,680.00	31,680.00	31,680.00
Communication Expenses					
Mobile Expenses		58,176.00			
Internet Subscription Expenses		79,176.00			
Representation Expenses		42,240.00			
Rent Expenses		20,000.00	20,000.00	20,000.00	20,000.00
Sub-Total for MOOE	P	319,592.00	100,000.00	100,000.00	100,000.00
III. Equipment Outlay					
Technical and Scientific Equipment					
Delivery of three Junk Compactor Technology		906,100.00			
Delivery areas: Romblon, San Jose and Cajidiocan					
1,000kg capacity for plastic bottles					
Force: 10T					
Bale Size: 50x40cm					
Bale Weight: 10-50kg					
Machine Size: 110x90x260 cm					
Motor Power: 3.7kW (5HP) - Single Phase					
Weight: 110kg					
Motorized					
Easy Control					
Sub-Total for EO	P	906,100.00	-	-	-
IV. Fixed Asset/s					
Land and Building			2,000,000.00	1,500,000.00	5,000,000.00
Sub-Total for Fixed Asset/s	P	-	2,000,000.00	1,500,000.00	5,000,000.00
GRAND TOTAL	P	1,225,692.00	2,364,000.00	1,864,000.00	5,364,000.00

GAD Checklists 2: For the Project Identification and Design Stages

Note: Put 'X' mark on appropriate box

Element and items/question (col.1)	Done? (col.2)			Score for an item/ element (col.3)	Comments/ gender issues identified (col.4)
	No (2a)	Partly (2b)	Yes (2c)		
1.0 Involvement of women and men (max score: 2; for each item, 1)				2	
1.1 Participation of women and men in beneficiary groups in the identification of the problem (possible scores: 0, 0.5, 1.0)			X	1	
1.2 Participation of women and men in beneficiary groups in project design (possible scores: 0, 0.5, 1.0)			X	1	
2.0 Collection of sex-disaggregated data and gender-related information (possible scores: 0, 1.0, 2.0)	X			0	
3.0 Conduct of gender analysis and identification of gender issues (max score: 2; for each item, 1)				1	
3.1 Analysis of gender gaps and inequalities related to gender roles, perspectives and needs, or access to and control of resources (possible scores: 0, 0.5, 1.0)		X		0.5	
3.2 Analysis of constraints and opportunities related to women's and men's participation in the project (possible scores: 0, 0.5, 1.0)		X		0.5	
4.0 Gender equality goals, outcomes, and outputs (possible scores: 0, 1.0, 2.0) Does the project have clearly stated gender equality goals, objectives, outcomes or outputs?		X		1	
5.0 Matching of strategies with gender issues (possible scores: 0, 1.0, 2.0) Do the strategies and activities match the gender issues and gender equality goals identified?		X		1	
6.0 Gender analysis of the likely impacts of the project (max score: 2, for each item, 0.67)				2	
6.1 Are women and girl children among the direct or indirect beneficiaries? (possible scores: 0, 0.33, 0.67)			X	0.67	
6.2 Has the project considered its long-term impact on women's socioeconomic status and Empowerment? (possible scores: 0, 0.33, 0.67)			X	0.67	
6.3 Has the project included strategies for avoiding or minimizing negative impacts on women's status and welfare? (possible scores: 0, 0.33, 0.66)			X	0.66	
7.0 Monitoring targets and indicators (possible scores: 0, 1.0, 2.0) Does the project include gender equality targets and indicators to measure gender equality outputs and outcomes?		X		1	
8.0 Sex-disaggregated database requirements (possible scores: 0, 1.0, 2.0) Does the project M&E system require the collection of sex-disaggregated data?	X			0	
9.0 Resources (max score: 2; for each item, 1)				1	
9.1 Is the budget allotted by the project sufficient for gender equality promotion or integration? OR, will the project tap counterpart funds from LGUs/ partners for its GAD efforts? (possible scores: 0, 0.5, 1.0)		X		0.5	
9.2 Does the project have the expertise to promote gender equality and women's empowerment? OR, is the project committed to investing project staff time in building capacities within the project		X		0.5	

to integrate GAD or promote gender equality? (possible scores: 0, 0.5, 1.0)					
10.0 Relationship with the agency's GAD efforts (max score: 2; for each item, 0.67)				2	
10.1 Will the project build on or strengthen the agency/ PCW/ government's commitment to the empowerment of women? (possible scores: 0, 0.33, 0.67) IF THE AGENCY HAS NO GAD PLAN: Will the project help in formulating the implementing agency's GAD plan?			X	0.67	
10.2 Will the project build on the initiatives or actions of other organization in the area? (possible scores: 0, 0.33, 0.67)			X	0.67	
10.3 Does the project have an exit plan that will ensure the sustainability of GAD efforts and benefits? (possible scores: 0, 0.33, 0.67)			X	0.66	
TOTAL GAD SCORE FOR THE PROJECT IDENTIFICATION AND DESIGN STAGES				11	

Interpretation of the GAD score

- 0 - 3.9 GAD is invisible in the project (proposal is returned).
- 4.0 - 7.9 Proposed project has promising GAD prospects (proposal earns a "conditional pass," pending identification of gender issues and strategies and activities to address these and inclusion of the collection of sex-disaggregated data in the monitoring and evaluation plan).
- 8.0 - 14.9 Proposed project is gender-sensitive (proposal passes the GAD test)
- 15.0 - 20.0 Proposed project is gender-responsive (proponent is commended).

DOST Form 5

A – PROJECT WORKPLAN

DOST Form 5
B – EXPECTED OUTPUTS

(1) Program Title: Grants-in-Aid

(2) Project Title: Solid Waste Management through Junk Compactor Technology for Romblon's Top Tourist Destinations

(3) Project Duration (number of months): 12 months implementation, 24 months monitoring **(4) Project Start Date:** January 2025

(5) Project End Date: December 2027

[illegible]

DOST Form 5
C – RISKS AND ASSUMPTIONS

(1) Program Title:

Grants-in-Aid

(2) Project Title:

Solid Waste Management through Junk Compactor Technology for Romblon's Top Tourist Destinations

(3) Project Duration (number of months):

12 months implementation, 24 months monitoring

(4) Project Start Date:

January 2025

(5) Project End Date:


December 2027

OBJECTIVES	(11) RISKS AND ASSUMPTIONS	(12) ACTION PLAN (use separate sheet if necessary)
Provide junk compactor technologies to three (3) tourism municipalities	Failure to deliver technologies on time due to delays in the procurement activities	Constant communication with suppliers and exhaust all possible remedies such as tapping government and private institutions to ensure delivery of technologies
Compact an average of 1,000kg of waste in San Jose, and an average of 500kg waste in Romblon and Cajidiocan	Failure to process the target volume	Communicate with suppliers and tap experts on how to troubleshoot technology concerns
Generate at least three direct employments, one each from LGUs-Romblon, San Jose and Cajidiocan who will operate the junk compactor	Failure to hire personnel	Assist in the hiring process through widespread posting, recommendations from partners
Provide capability building activities on equipment operation and maintenance	Failure to conduct the training due to unforeseen circumstances	Constant communication with suppliers and explore possible course of actions such as conduct of virtual trainings, should it be impossible to conduct face-to-face trainings



RESIKLO MACHINE SHOP
#245 Salinas I, Bacoar, Cavite
E-mail Address: resiklo.mfg@gmail.com

Date : June 11, 2024
Quotation # : 0611-0096A v3 Baling 10T
To :
Address :
E-mail :
Subject : **Hydraulic Baler Machine**

No.	Specifications / Description		Qty	Unit Price (Php)	Subtotal (Php).
1	<div>Resiklo Hydraulic Baler - 10T (RHB-10T)</div> 	<div>Hydraulic Baler Force: 10T Bale Size: 50x40cm Bale Weight: 10-50kg Machine Size: 110x90x260 cm Motor Power: 3.7kW (5HP) - Single Phase or Three Phase Weight: 110kg Features:<ul style="list-style-type: none">• Motorized• Easy Control• Power ProtectionRecommended Bailing Materials:<ul style="list-style-type: none">• PET Bottles• Soft Plastics• Tin Cans• Paint Cans• Oil Cans• Etc.</div>	3	302,033	906,100



RESIKLO MACHINE SHOP
#245 Salinas I, Bacoar, Cavite
E-mail Address: resiklo.mfg@gmail.com

		<p>Includes:</p> <ul style="list-style-type: none">• Delivery from Bacoar, Cavite to<ul style="list-style-type: none">○ Cajidiocan Romblon○ San Jose Romblon○ Romblon Romblon• Crating and Packaging of item #1 for three (3) Locations <p>Includes:</p> <ul style="list-style-type: none">• Airfare of 2 personnels to and from Manila to Caticlan• Caticlan to the three (3) different Islands and back to Caticlan• One (1) day Training Fee for each island• Accommodation in each island <p>Estimated Time:</p> <ul style="list-style-type: none">• Training Proper = 9:00 am to 4pm			
TOTAL:					PhP 906,100

Terms and Conditions:

Payment : 50% downpayment to proceed to production and 50% upon delivery
Delivery : As Specified in the RFQ
Lead Time : 40-100 working days
Price Validity : Effective Thirty (30) Days from date of Request for Quotation (RFQ)



RESIKLO MACHINE SHOP
#245 Salinas I, Bacoor, Cavite
E-mail Address: resiklo.mfg@gmail.com

Warranty : **6 months parts warranty and 12 months service warranty from production date against factory defects.**
Warranty is null and void if the supplied product is installed or operated beyond its specified or allowable parameters as specified in the manual.

Agreement : **RFQ price is based on stated drawing/design, specification/s (dimensions), accessory, material/s and quantity**
: **ANY CHANGE in design, dimension, accessories NOT SPECIFIED in this quotation will be subject to price evaluation**
: **The quantity in this quotation (per item) is fixed upon Acceptance or Conforme/Purchase Order, ANY CHANGE is subject to price evaluation**

Should you have anything for clarification, please call us at tel.#. (046) 230-3158.

Thank you.

Looking forward to starting a valuable partnership with you.

Very truly yours,

Engr. Michael V. Vizconde
Co-Owner Resiklo

Conforme:

By signing this Request for Quotation (RFQ), we agree to follow the above stated Terms and Conditions.

Signature : _____

Name of Customer/Company : _____

Signing Date : _____