




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 Project Title: Packaging Development for Marble Novelty Products: Part 2-Branding				
(2) Project Leader/Sex: Dr. Bilshan F. Servañez Agency (smallest unit): Center for Innovative Learning and Enterprise Development at the Romblon State University (CiLearnED@RSU) Address/Telephone/Fax/Email (Barangay, Municipality, District, Province, Region): Liwanag, Odiongan, Romblon				
(3) Cooperating Agency/ies (Name/s and Address/es): LGU-Romblon				
(4) Implementing Agency (Name of University-College-Institute, Department/Organization or Company): Romblon State University Address/Telephone/Fax/Email (Barangay, Municipality, District, Province, Region): Base Station: Liwanag, Odiongan, Romblon Other Implementation Site (s): Romblon, Romblon				
(5) Project Duration (number of months): 12 months Project Start Date: December 2024 Project End Date: November 2025				
(6) Total Project Cost: P1,500,000.00 (indicate Counterpart Funds; use Form 4 for the Line-Item Budget)				
Implementing Agency/ies	PS	MOOE	EO	Total
A. Requested Fund				
DOST-MIMAROPA		Php254,800.00	Php1,430,000.00	Php1,684,800.00
B. Counterpart Fund 1				
RSU		Php100,000.00	Php500,000.00	Php600,000.00
TOTAL		Php354,800.00	Php1,930,000.00	Php2,248,800.00
Sustainable Development Goal (SDG) Addressed: #4. Quality Education, #9. Industry, Innovation and Infrastructure				

II. PROJECT SUMMARY

<p>(7) Executive Summary (not to exceed 200 words)</p> <p>The project is an extension of an earlier project with almost the same title, this time taking the packaging of Romblon marble to another level: designing laminated bamboo boxes and crates for Romblon marble and enhancing branding utilizing laser technology to etch the marble producer's names in the crates. These crates are intended for heavier marble novelty items; the ones that cannot be supported by the packaging boxes in the first project. The crates will be made of laminated bamboo that will be manufactured using the equipment earlier provided by DOST and NEDA in separate projects. Beneficiaries are marble producers that create big marble novelty items like figurines, jars, urns, and furniture items. LGU Romblon will be enjoined for the project to create a pool of players in the government sector that supports the marble industry in the province. Bamboo is the material of choice due to its highly renewable nature and to prevent the cutting of trees just for packaging. Laser etching will provide crisp package brands that will be more appealing to discerning customers.</p> <div></div> <p>Figure 1. Sample laser etched logos of RSU, DOST, NEDA and Filipinnovation made at the Woodworking School Factory of the Romblon State University, CiLearnED. Precision etching may still be improved with better laser capabilities.</p>
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(8) Introduction (Not to exceed 15 pages)

Rationale/Significance (Not to exceed 300 words)

The marble industry had recently been given a boost by the RSU in partnership with government line agencies like the DOST, NEDA and CHED. State-of-the-art equipment for marble processing as well as for processing marble cutting plant wastes are now in place. Training on the utilization of these equipment had been conducted to industry players and their workers. Researches on the utilization of ground calcium carbonate as paint additive, concrete strength enhancer, soil ameliorant are also ongoing. Other completed researches are on marble spool insulator. This last research has generated a utility model for the spool design. The RSU and the industry have benefitted from these endeavors through modern equipment acquisition and new knowledge generated particularly on the use of numeric controlled equipment. Research publication as well as community application of these researches are also expected. New products and designs may also be generated. Packaging of marble novelty items have also been done with beautifully-made cardboard packaging materials that will protect the product and enhance the marble appeal and salability. The proposal will enhance the products further by packaging the marble products in laminated bamboo boxes and crates and etching the manufacturers' logo or brand name to the boxes. A nicely boxed product will not only increase the price of the total product by incorporating the price of the box and the product but also put an extra premium price for the benefits of packaging. This had been observed before in the numerous products with packaging assisted by DOST-MIMAROPA. The products have become household names due to good packaging and have commanded good pricing. Packaging with crates made of bamboo will also ensure that environmental protection is observed in the marble product development process.



Figure 2. Sample packaging boxes made of laminated bamboo. The RSU has the capability to mass produce this design and others like it.

Objectives (General and Specific):

The general objective of this project is to further enhance the branding of Romblon marble products through innovative use of materials and design.

Specifically it seeks to:

1. Introduce innovative packaging through design and production of laminated bamboo boxes and crates for marble novelty items.
2. Bring bamboo packaging to the next level by incorporating brand and logo markings using precision laser etching.
3. Bring price increase through synergistic pricing with an added 15-30% markup due to the innovative packaging

4. Strengthen collaboration between academe, NGAs and the industry.

Methodology:

Technology Description. Crates for packaging are usually made of wood that are light and easily workable. In this project wood for crates and boxes will be replaced with bamboo. The RSU had been capacitated by NGAs with state-of-the-art equipment for bamboo lamination. DOST have provided pole cutter, bamboo slicer, and thickness planer. NEDA provided additional pole cutter, 5 thickness planers, and also a slicer. The DBM provided a heated hydraulic press. The university is doing product development for laminated bamboo tabletops for student desks and chairs. These facility plus expertise will be brought to the max by creating another product that will serve the packaging industry. Using the existing equipment, the RSU will develop boxes and crates for marble products. These boxes and crates will be manufactured from slats derived from the butt portion of the bamboo culm. These are usually about ½-inch thick when processed. The processed slats will then be laminated and later on fashioned into boxes or crates. These boxes and crates will be etched with logo design using laser printing technology. Turned bamboo boxes will also be included as a product of this project.

Value Proposition. The main value propositions are product protection and enhanced appearance for products placed inside the boxes and crates. Environment protection through the use of a highly renewable resource is another plus proposition. Brands that put the manufacturers’ logo in the package will provide assurance to buyers that the products they are getting are backed by the manufacturer.

Marketing and Sales Strategy Including Customer Segments and Marketing Channels. Customer segments are the marble processors with products to box. Corporate giveaways may also be targeted for the products. Custom etching may also be provided with the customer providing the logo of his/her company. Products may be sold directly to marble processors or at the CiLearnED@RSU. Online marketing channels like MIMAROPA Ventures, One Store, or Lazada may also be accessed.

Organizational Structure. The project will be undertaken by CiLearnED personnel with students serving as the labor force doing paid piecework. The 3 regular workers of the CiLearnED will supervise production. Laser printing may be done by trained and authorized personnel so as to safeguard the equipment.

Cost and Return. Boxes may range in price from 100 to 500. With a 30% markup, operations is expected to be sustained, all OPEX taken cared of. Profit of 30 to 150 pesos per box may be realized. Depending on demand, production may go from 1,000 to 5,000 pieces per month.

Risks and Strategies for Elimination. Non-revenue risks may be eliminated through flyers and intensive media marketing campaign. RSU personnel will be encouraged to use the products for gift-giving and giveaways. Product deterioration risk through infestation by bamboo powder-post beetle may be eliminated with proper treatment.

Expected Outputs (6Ps):

Publication	At least one news article, one flyer, and one research paper on product development.
Patent/ Intellectual Property	Industrial design for the boxes
Product	Innovative bamboo-laminated boxes and crates, lathe turned bamboo boxes and canisters.
People Service	Marble shop owners and other product producers
Place and Partnership	LGU-Romblon
Policy	RSU policy for making the boxes part of its corporate giveaways

Potential Outcomes:

1. Execution of at least 1,000 boxes and crates per month for sale to marble processors and other vendors.
2. A study on the strength of the boxes, acceptance, and gaps for product improvement.

<div><div><div><div><div><div>3. Strengthened the branding and marketability of marble products and other products that may be contained in the boxes and crates.</div><div>4. Increased revenues by marble processors by at least 15-30%; also increased production revenue of the RSU bamboo processing school factory.</div><div>5. Strengthened collaboration among project stakeholders.</div></div></div><div><div>Potential Impacts (2Is):</div><div><div><div><div><div><div><u>Social Impact</u></div><div><div>1. Proper packaging provides protection for products and promotes ease of transporting that could benefit both trades and customers of marble products.</div><div>2. As the packaging is sturdy it may be reused by the customers for other purposes.</div><div>3. With branding, customers are assured of quality products coming from the known producers.</div></div></div><div><div><u>Economic Impact</u></div><div><div>1. Proper packaging can increase profits as it will not only provide protection but enhance final appearance of product being protected; for these a premium may be added to the usual cost.</div><div>2. Packaging will improve reputation of Romblon marble products and may promote word of mouth promotions thereby increasing consumer base.</div><div>3. Proper identification of source will lead to customer loyalty leading to increased sales.</div></div></div></div></div><div><div>Discussion on the results of related project handled by the same proponent (if any):</div><div>The proponent have handled several projects from DOST-MIMAROPA from the school factories, research activities, and the recent packaging project that had been successfully bid out, implemented and properly liquidated. The school factories have been operating and providing revenue to the university not to mention its usefulness in creating furniture for institutional use.</div></div><div><div>Target Beneficiaries:</div><div>Target beneficiaries of the project are the more than 47 registered marble shop owners and the 91 registered marble traders in the province. Buyers will also benefit from the enhanced product quality.</div></div><div><div>Sustainability Plan:</div><div>Funds for the project will initially support production. As sales mount, these will be utilized for the next production until sustainability is reached in a cyclical manner. For further customer satisfaction development research will be done to improve the products and create new market niches. Customization may be eliminated for ease of production. Buyers of the boxes will conform with standard sizes and designs and fit their products to it. This will not only systematize production but also improve profitability using standard procedures.</div></div><div><div>Gender and Development (GAD) Score (refer to the attached GAD checklist):</div></div></div></div></div></div></div></div>
<div>(9) Workplan (See Form 5)</div>
<div><div>(10) Project Management (not to exceed one page)</div><div>The project will be implemented by the CiLearnED@RSU in partnership with DOST PSTO Romblon. Funds will be downloaded to RSU by the DOST-MIMAROPA in close monitoring by the PSTO. Overseer functions will also be made by the DOST PSTO Romblon. LGU-Romblon and other stakeholders will also be invited to participate in the project.</div></div>

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

Prepared by:	Endorsed by:
<div>DR. BILSHAN F. SERVANEZ Project Leader and Director, CiLearnED@RSU</div>	<div>Marcelina V. Servanez Provincial S&T Director, PSTO Romblon</div>

Approved by:

DR. MA. JOSEFINA P. ABILAY
Regional Director, DOST-MIMAROPA

DOST Form 3
NON-R&D PROJECT PROPOSAL

I. General Instruction: Submit through the DOST Project Management Information System (DPMIS), <http://dpmis.dost.gov.ph>, the non-R&D proposal and other applicable supporting documents required under item III below. Also, submit four (4) copies of the proposal together with its supporting documents. Use Arial font, 11 font size.

II. Operational Definition of Terms:

1. Title- the identification of the Program and the component projects.

Program- refers to a group of interrelated or complementing S&T projects that require an interdisciplinary or multidisciplinary approach to meet established goal(s) within a specific time frame.

Project- refers to the basic unit in the investigation of specific S&T problem/s with predetermined objective/s to be accomplished within a specific time frame.

2. Project Leader- refers to a project's principal researcher/implementer.

Agency- the institution of the Project Leader.

Smallest Unit of an Agency- refers to a Section, Division, Department or College provided that the Project Leader directly reports to the Head of said Section, Division, Department or College.

3. Cooperating Agency/ies- refers to the agency that support/s the project by participating in its implementation as collaborator, co-grantor, committed adopter of resulting technology, or potential investor in technology development or through other similar means.

4. Implementing Agency- the primary organization involved in the execution of a program/project which can be a public or private entity

Site/s of Implementation- location/s where the project will be conducted. Indicate the barangay, municipality, district, province, region, and country.

5. Project Duration- refers to the grant period or timeframe that covers the approved start and completion dates of the project, and the number of months the project will be implemented.

6. Project Cost- refers to the amount or budget requested by the Implementing/Monitoring Agency and/or approved by the Funding Agency.

Sustainable Development Goal (SDG) Addressed- indicates which among the 17 SDGs adopted by the United Nations Members States are addressed by the project

7. Executive Summary- briefly discusses what the whole proposal is about

8. Introduction- a formally written declaration of the project and its idea and context to explain the goals and objectives to be reached and other relevant information that explains the need for the project and aims to describe the amount of work planned for implementation; refers to a simple explanation or depiction of the project that can be used as communication material.

Rationale- brief analysis of the problems identified related to the project

Significance- refers to the alignment to national S&T priorities, strategic relevance to national development and sensitivity to Philippine political context, culture, tradition and gender and development.

Objectives- statements of the general and specific purposes to address the problem areas of the project.

Methodology- discusses the following: (a) variables or parameters to be measured and evaluated or analyzed; (b) treatments to be used and their layout; (c) experimental procedures and design; (d) statistical analysis; (e) evaluation method and observations to be made, strategies for implementation (Conceptual/Analytical framework).

Expected Outputs (6Ps)- deliverables of the project based on the 6Ps metrics (Publication, Patent/Intellectual Property, Product, People Service, Place and Partnership, and Policy).

Publication- published aspect of the research, or the whole of it, in a scientific journal or conference proceeding for peer review, or in a popular form.

Patent/Intellectual Property- proprietary invention or scientific process for potential future profit.

Product- invention with a potential for commercialization.

People Service- people or groups of people, who receive technical knowledge and training.

Place and Partnership- linkage forged because of the study.

Policy- science-based policy crafted and adopted by the government or academe as a result of the study.

Potential Outcomes- refer to the result that the proponent hopes to deliver three (3) years after the successful completion of the project.

Potential Impacts

Social Impact- refers to the effect or influence of the project to the reinforcement of social ties and building of local communities.

Economic Impact- refers to the effect or influence of the project to the commercialization of its products and services, improvement of the competitiveness of the private sector, and local, regional, and national economic development.

Target Beneficiaries- refers to groups/persons who will be positively affected by the conduct of the project.

Sustainability plan- refers to the continuity of the project or how it shall be operated amidst financial, social, and environmental risks.

Gender and Development (GAD) Score- refers to the result of accomplishing GAD checklists (for project monitoring and evaluation/project management and implementation) to highlight the contribution of the project in the achievement of the objectives of Republic Act 7192, "Women in Development and Nation Building Act," interpreted as gender-responsive, gender-sensitive, has promising GAD concepts, or GAD is invisible.

9. Workplan- refers to the plan of completing the project within a given time and in compliance to the set budget.

10. Project Management- includes discussion on the organizational set-up by which the project shall be implemented, and also on the monitoring scheme to be done by the Project Leader to ensure objectives are attained. Not to exceed one (1) page.

III. Other supporting documents required (as stated in Section VII of DOST A.O. No. 011, Series of 2020 – Revised Guidelines for the Grants-in-Aid Program):

1. Detailed breakdown of the required fund assistance to indicate the counterpart of the proponent and other fund sources including letter/s of commitment from the implementing, collaborating and coordinating agency/entity/ies;¹
2. A counterpart fund, in kind and/or in cash, shall be required from the implementing agency/entity as one of the application requirements. All projects must have a minimum of 15% counterpart contribution except for projects involving public good;¹
3. Curriculum Vitae or Personal Data Sheet (PDS) of Project Leader and other co-researchers/implementers. The service record may be requested if needed;¹
4. Clearance from the DOST or the Funding Agency (e.g., DOST Councils) on previously funded completed projects handled by the Project Leader;¹
5. Approval from the institution's ethics review board for research involving human subjects or in the case of animal subjects, approval from the Bureau of Animal Industry (BAI) (for PCAARRD- and PCHRD-monitored projects);
6. Clearance from the DOST Biosafety Committee (DOST-BC) shall be required for research proposals involving the use of GMOs under contained use (i.e., experiments done in laboratories, screen house, green house). For projects other than contained use, they shall be referred to the appropriate agency. The DOST Sectoral Councils, after determination as to whether or not the proposal has biosafety implications, shall endorse the same to the DOST-BC in accordance with the prescribed format under Annex 3 of the Philippine Biosafety Guidelines for Contained Use of Genetically Modified Organisms (series of 2014) (if applicable); and
7. For the private non-profit/non-government/people's organizations and startups:
 - a. Up-to-date Securities and Exchange Commission (SEC) registration, or Department of Trade and Industry (DTI) registration, or Cooperative Development Authority (CDA) registration certificate, or other authenticated copy of latest Articles of Cooperation and other related legal documents;
 - b. Co-signers Statement (if applicable);
 - c. Copy of latest Income Tax Return;
 - d. Mayor's permit where the business is located;
 - e. Audited Financial Statements for the past three (3) years preceding the date of project implementation or in case of those with operation of less than 3 years, for the years in operation and proof of previous implementation of similar projects (or in the case of startups, at least for one (1) year);
 - f. Document showing that NGO/PO has equity to 20 percent of the total project cost, which shall be in the form of labor, land for the project site, facilities, equipment and the like, to be used in the project;
 - g. Disclosure of other related business, if any;
 - h. List and/or photographs of similar projects previously completed, if any, indicating the source of funds for implementation;
 - i. Sworn affidavit of secretary of the NGO/PO that none of its incorporators, organizers, directors or officers is an agent of or related by consanguinity or affinity up to the fourth civil degree to the official of the agency authorized to process and/or approved the proposed MOA, and release of funds;
8. For CSOs, compliance to regulations as required by the General Appropriations Act (GAA) pertaining to fund transfers to Civil Society Organizations (CSOs); and
9. For foundations, DOST certification as accredited by the Science and Technology Foundation Unit

¹ required of all proposals

IV. Criteria for Evaluation:

A. Criteria for Evaluating Proposals

Criterion	Definition
Relevance or Significance	Aligned to national S&T priorities, strategic relevance to national development and sensitivity to Philippine political context, culture, tradition and gender and development
Technical / Scientific Merit	Sound scientific basis to generate new knowledge or apply existing knowledge in an innovative manner
Budget Appropriateness	The proposed budget is commensurate to the proposed work plan and deliverables.
Competence of Proponent	Proponent's expertise is relevant to the proposal and with proven competence to implement, manage and complete R&D programs/projects within the approved duration and budget.

B. Governing Council / Board and EXECOM's Evaluation Criteria		
Criteria	Indicators	Raw Score
A. Soundness of Proposal (20%)	R&D addresses relevant sectoral need (applicable to pressing concern)	5
	Solution provided is most effective (compared to other proposed solutions)	5
	Proposed budget is reasonable (project is not expensive vis-a-vis output)	5
	Work plan is doable in a given timeframe	5
B. Suitability of Output (30%)	R&D output is cost-effective (cost is competitive in relation to new or existing products or process)	5
	Has identified partners to adopt the technology (with letter of support from the head of the company)	5
	Output can be commercialized (through an existing manufacturer, spin-off or start-up company)	5
	R&D utilization is timely (output should not be overtaken by other solutions)	5
C. Significance of Outcome (30%)	Economic: increase in productivity, increase in income, new jobs generated, high return of investment (ROI)	5
	Social: working partnerships established, training opportunities provided, policies adopted, increased access to basic services (i.e., food, health, education); political, cultural, gender sensitivity and inclusivity	5
	Environment: enhanced environmental health standards, no adverse effect to the environment	5
	Sustainability: sustainability mechanisms established in terms of institutional, financial and human resources capability (submission of a new proposal to sustain a completed or ongoing proposal does not constitute sustainability of the project)	5
D. Competence of Proponent (20%)	Proponent's expertise aligned with the proposal	5
	Collaboration with relevant agencies and/or industry partners	5
	Thorough understanding of the proposal's deliverables	5
	DOST has good experience with the proponent	5

C. Additional Criteria on Gender and Development (GAD)