

**PROJECT PROPOSAL**  
2022 DOST-GIA FUNDING

**I. PROJECT PROFILE**

<b>(1) Project Title: Rice Transplanter Technology for Tuban Blessed Farmers Multi-Purpose Cooperative.</b>			
<b>(2) Project Leader/Sex: Arthur L. Nocelo/Male</b> <b>Agency:</b> Tuban Blessed Farmers Multi-Purpose Cooperative (TUBFARMCO) <b>Address/Telephone/Fax/Email:</b> Barangay Tuban, Sablayan, Occidental Mindoro			
<b>(3) Cooperating Agency/ies:</b> Tuban Blessed Farmers Multi-Purpose Cooperative (TUBFARMCO)			
<b>(4) Site/s of Implementation (Municipality / District / Province / Region)</b> <b>Base Station:</b> Brgy. Tuban, Sablayan, Occidental Mindoro <b>Other Implementation Site(s):</b>			
<b>(5) Project Duration:</b> 3 years			
<b>(6) Total Project Cost:</b> (indicate Counterpart Funds; use Form A for the Line-Item Budget)			
Source of Fund / Site(s) of Implementation	MOOE	EO	Total
A. DOST-MIMAROPA	210,000.00	490,000.00	700,000.00
B. TUBFARMCO	174,600.00	-	174,600.00
<b>TOTAL</b>	<b>384,600.00</b>	<b>490,000.00</b>	<b>874,600.00</b>

**II. PROJECT SUMMARY**

<p><b>(7) Rationale</b> (Not to exceed one page)</p> <p>Palay or paddy rice is one of the main agricultural crops being harvested in the province of Occidental Mindoro. With this, many cooperatives and associations were formed for agricultural development and processes. One of the cooperatives is the Tuban Blessed Farmers Multi-Purpose Cooperative (TUBFARMCO).</p> <p>Located at Barangay Tuban, Sablayan, Occidental Mindoro, TUBFARMCO, organized in 2008 as a Multipurpose cooperative, was registered with the Cooperative Development Authority with Registration Number: 9520-04001807. At present the said cooperative has 118 members. The collective total of land being farmed by the members is around 500 hectares. Brgy. Tuban has a total of 676 hectares of agricultural land. This shows that the members of TUBFARMCO have a 74% control in the farming of rice.</p> <p><b>Community Situation</b></p> <p>Rice is the primary crop being planted by the people of Brgy. Tuban. One of the primary concerns, particularly by the members of TUBFARMCO is the cost of manually planting rice which averages from PHP 6,000.00 (<i>waray waray</i>) to 7,000.00 (<i>straight planting</i>) per hectare. A hectare with 25 persons can finish the planting of rice in four (4) hours.</p> <p>When planting rice manually, the seed distribution is not uniform in number. The spacing of rice from each seedling is also not uniform. The members of TUBFARMCO want and needs something that will make their planting of rice more efficient and effective. TUBFARMCO farmers make the most of palay farming for 3 cropping season which means harvesting can be done thrice in a year. TUBFARMCO members currently tills a total of 535 hectares combined.</p>
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**(8) Project Description** (Not to exceed 15 pages)**OBJECTIVES** (General and Specific)

The general objective of this project is to provide a farm implement that will help TUBFARMCO members and other farmers in Barangay Tuban cut cost on planting of rice and have an additional income generating activity for the cooperative.

Specifically, the project aims to:

1. Improve the quality of planting of rice of farmers by utilizing the rice transplanter;
2. Reduce the cost of labor and seedling requirement in the process of planting rice;
3. Increase efficiency and planting density of planting of rice;
4. Provide training on operation and maintenance of Rice Transplanter.

**METHODOLOGY****Economic Development and Livelihood Opportunities**

The Rice Transplanter benefits 118 members of TUBFARMCO and can be leased by non-members. This will give additional income for the cooperative.

**Rice Transplanter**

The Rice Transplanter will be awarded to TUBFARMCO that will make the planting of rice efficient, minimize labor cost and have a balanced seedling density.

The DOST-MIMAROPA through its PSTC-Occidental Mindoro will spearhead the implementation of the project. Once the project is recommended for approval, funds will be allocated, and procurement of equipment will immediately follow. TUBFARMCO will manage the project and will assign 3 operators and 2 helpers to handle the machine. The main operators will be paid PhP 400.00 each per hectare while the helpers at PhP 300.00 per hectare. The cooperative shall provide a facility for the storage of Rice Transplanter when not in use.

**EXPECTED OUTPUTS**

Publication	results on the observed performance of the walk-behind transplanter shall be recorded for future publication and promotion based on the following indicators: labor requirement and wages/labor, hectareage planted, number of hills, and time in motion, etc.
Patents/IP	not applicable
Product	increase in production at 70% efficiency rate
People Service	118 members of TUBFARMCO and at least 10 non-member farmers in Barangay Tuban shall benefit from the technology
Partnership	a Memorandum of Agreement between DOST-MIMAROPA and TUBFARMCO shall be entered into indicating commitment for the project implementation
Policy	TUBFARMCO will formulate guidelines and policy regarding use and maintenance of the mechanical transplanter.

**EXPECTED OUTCOMES**

1. Improve the quality of planting of rice of by utilizing the rice transplanter;
  - a. one (1) unit of Walk-Behind 6 Rows Rice Transplanter provided

- b. at least 10 % of the total 118 members' planting method/system have improved;
- c. number of working days estimated to be decreased from 535 days to 268 days
- 2. Reduce the cost of labor and seedling requirements in the process of planting rice
  - a. Reduce number of farm labor requirement from 20 laborers to 2 laborers/hectare;
- 3. Increase efficiency and planting density of planting of rice
  - a. Planting capacity of two (2) ha/day with 24 hills/m<sup>2</sup> planting density achieved
- 4. Provide training on operation and maintenance of Rice Transplanter.
  - a. At least 10 farmer-members of TUBFARMCO trained on operation and maintenance of the walk-behind transplanter;

TUBFARMCO is expected to save Php 5,040.00 per cropping season (computed as 250.00 per day x 20 farm labor) in labor costs through the walk-behind mechanized transplanter compared to the traditional or manual transplanting. Farm labor is paid Php 250.00 per day.

### **PERCEIVED IMPACT**

#### **Social Impact**

- a. People can rely to faster, efficient, cost saving equipment in the planting of rice.
- b. The residents will have more time for their families and other activities in the community by lessening the time in planting rice.

#### **Economic impact**

- a. The Rice Transplanter will be of great benefit to the cooperative's members as it covers more area to plant in a shorter time.
- b. By utilizing the rice transplanter, the beneficiaries will have an additional income-generating activity such as contracting the planting of rice or by allowing the rental of-equipment.
- c. The cost of planting rice will be cut. Seedling distribution and spacing will be uniform. Group of seeds or stalks planted will also be uniform compared to manual planting.

### **SUSTAINABILITY PLAN**

The Rice Transplanter will be maintained and monitored by the officers and staff of TUBFARMCO. A schedule of inspection or monitoring will be made regularly by the staff of PSTC. As per maintenance, funds are needed to properly maintain the Rice Transplanter. This calls for a fund to be raised and be collected. The equipment can be leased to members and non-members of TUBFARMCO in the amount of PHP 1,500.00 per hectare, excluding the expenses on diesel or gasoline. A 10% portion of every rental of the Rice Transplanter will be saved for future maintenance.

### **(9) Workplan (See Form B)**

### **(10) Project Management**

#### **Core Project Members**

The project will be implemented and managed primarily by the Tuban Blessed Farmers Multi-Purpose Cooperative (TUBFARMCO) and secondly the DOST-MIMAROPA through its Provincial Science and Technology Center-Occidental Mindoro.

**DOST-MIMAROPA**

DOST-MIMAROPA shall facilitate the provision of Walk-behind Rice Transplanter as a technology intervention. To ensure proper operation, PSTC-Occidental Mindoro shall coordinate the conduct of related trainings to equip the beneficiaries for an efficient implementation and management of the project.

**TUBAN BLESSED FARMERS MULTI-PURPOSE COOPERATIVE (TUBFARMCO)**

TUBFARMCO's General Manager, concurrent to the other on-going project under his supervision, will serve as the focal person and will supervise in the implementation and management of the project. The cooperative will ensure proper maintenance of the transplanter and will allocate funds for this purpose.

The Board of Directors upon recommendation of the General Manager will prepare and implement a safety net plan to ensure that if in case those farmers affected as a consequence of the walk-behind rice transplanter are members and will be displaced they will be afforded with alternative wage-earning activities. Similarly, the cooperative as a service provider will establish incentives and privilege guidelines or policy for members patronizing the transplanter. TUBFARMCO will include as its counterpart, remuneration package (wages, monetary benefits, etc.) to the designated operator of the transplanter. TUBFARMCO will provide DOST-MIMAROPA with records of the cooperative's monitoring activities which include the technical performance of the farm implement and the social and economic gains to determine the impact of the technology intervention.

1. Assign personnel who will constantly assist DOST-MIMAROPA to monitor GIA components intervention for the beneficiaries;
2. Assign a focal person from the cooperative who will oversee and manage the whole operation and progress of the project;
3. Ensure that funds allocated for the project are properly utilized and accounted;
4. Provide counterpart funds and stated in the Line Item Budget (Form A) during the implementation of the project.
5. Facilitate coordination for capability building activities;
6. Ensure proper project implementation through monitoring and documentation; and
7. Assign a schedule of maintenance crew.

**Rice Transplanter**

A project staff from the DOST-MIMAROPA Provincial Science and Technology Center-Occidental Mindoro, and the Tuban Blessed Farmers Multi-Purpose Cooperative (TUBFARMCO) will compose the Project Monitoring Team (PMT) who will oversee the implementation of the project.

The Tuban Blessed Farmers Multi-Purpose Cooperative (TUBFARMCO) for its part shall assist in the management and maintenance of the Rice Transplanter and ensure that it is properly used as intended including its assurance of safekeeping. TUBFARMCO shall task the current General Manager to oversee and supervise the use of the machine. Policies and guidelines shall be formulated by TUBFARMCO. A PSTC staff will co-facilitate in the formulation of these guidelines.

**III. ATTACHMENTS** (Please refer to the DOST-GIA Guidelines for the necessary documents.)

Form A – Line Item Budget

Form B – Work Plan

**Prepared by:**



**ARTHUR L. NOCELO**  
Manager

**Noted by:**



**MARIA ETHELWILDA G. CORONACION**  
Provincial S&T Director

**Approved by:**

**DR. MA JOSEFINA P. ABILAY**  
Regional Director



**Certified funds available:**



**JEFFREY D. VARELA**  
Accountant

**DOST Form B  
PROJECT WORKPLAN**

**(1) Program Title:** GRANT-IN-AID

**(2) Project Title:** Rice Transplanter Technology for Tuban Blessed Farmers Multi-Purpose Cooperative.

**(3) Total Duration (in months):** 36 months

**(4) Planned Start Date:** October 2022

**(5) Planned End Date:** January 2024

(6) OBJECTIVES	(7) TARGET ACTIVITIES	(8) TARGET ACCOMPLISHMENTS (Quantify, if possible)	Y1 (2022)				Y2 (2023)				Y3 (2024)			
			Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
1. Improve the quality of planting of rice by utilizing the rice transplanter.	Provision of Rice Transplanter for TUBFARMCO.	One (1) unit Rice Transplanter provided				x								
2. Reduce the cost of labor and seedling requirements in the process of planting rice.	Reduce the cost of labor	Number of farm labor requirement from 20 laborers reduced to 3 laborers/hectare					x	x	x	x	x	x	x	x
3. Increase efficiency and planting density of planting of rice.	Improve the planting capacity of two (2) ha/day with 24 hlls/m <sup>2</sup> planting density	Planting capacity of two (2) ha/day with 24 hills/m <sup>2</sup> planting density achieved					x	x	x	x	x	x	x	x
4. Provide training on operation and maintenance of Rice Transplanter.	Train farmers for the proper operation and maintenance of Rice Transplanter.	One (1) Training in operation and maintenance of Rice Transplanter conducted for at least 10 farmer-members of TUBFARMCO trained for the proper operation and maintenance of the walk-behind transplanter				x								

(9) EXPECTED OUTPUTS (6Ps)	(10) DETAILS (quantify, if possible)	Y1 (2022)				Y2 (2023)				Y2 (2024)			
		Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
<b>Publications</b>	Results on the observed performance of the walk-behind transplanter shall be recorded quantitatively for future publication and promotion based on the following indicators: labor requirement and wages/labor, hectarage planted, number of hills, and time in motion, etc.							x					
<b>Patents/IP</b>	<b>Not Applicable</b>												
<b>Products</b>	Increase in production at 80% efficiency rate					x	x	x	x	x	x	x	x
<b>People Services</b>	111 members of TUBFARMCO and at least 10% of the total farmers in Barangay Tuban; At least 10 farmer-members of TUBFARMCO trained on operation and maintenance of the walk-behind transplanter					x	x	x	x	x	x	x	x
<b>Places and Partnerships</b>	A Memorandum of Agreement between DOST-MIMAROPA and TUBFARMCO shall be entered into indicating commitment for the project implementation;				x								
<b>Policy</b>	TUBFARMCO will formulate guidelines and policy regarding use and maintenance of the mechanical transplanter				x	x							

## DOST Form A

**DEPARTMENT OF SCIENCE AND TECHNOLOGY**  
**Project Line-Item Budget**  
**CY 2022-2024**

Program Title : GRANTS-IN-AID  
 Project Title : Rice Transplanter Technology for Tuban Blessed Farmers Multi-Purpose Cooperative.  
 Implementing Agency : Tuban Blessed Farmers Multi-Purpose Cooperative (TUBFARMCO)  
 Total Duration : 2022-2024 (1 year for project implementation / 2 years for monitoring of outcomes)  
 Current Duration :  
 Cooperating Agency : Tuban Blessed Farmers Multi-Purpose Cooperative (TUBFARMCO)  
 Program Leader : DR. MA. JOSEFINA P. ABILAY  
 Project Leader : ARTHUR L. NOCELO  
 Monitoring Agency : PSTC-OCCIDENTAL MINDORO

	Counterpart Funding	
	Implementing Agency TUBFARMCO	DOST MIMAROPA
<b>I. Personal Services</b>	P	P
<b>(Implementing Agency)</b>		
Salaries (for 3 operators/2 helpers)	129,600.00	
<b>Sub-total for PS</b>	<b>P 129,600.00</b>	<b>P -</b>
<b>II. Maintenance and Other Operating Expenses</b>		
Traveling Expenses - local		120,000.00
Training Expenses	25,000.00	
Traveling Expenses - local		40,000.00
Supplies and Materials Expenses		3,570.00
Fuel, Oil and Lubricants Expenses	5,000.00	5,000.00
Supplies and Materials		
Office supplies		18,000.00
Fuel, Oil and Lubricants Expenses		10,000.00
Representation Expenses	10,000.00	10,000.00
Other Professional Services	5,000.00	
Taxes, Insurance Premiums and Other Fees		
Insurance Expenses		3,430.00
<b>Sub-Total for MOOE</b>	<b>P 45,000.00</b>	<b>P 210,000.00</b>
<b>III. Equipment Outlay</b>		
<b>1 Unit of Walk-Behind 6 Rows Rice Transplanter</b>		490,000.00
Specifications: L=2370 mm/W=1930mm/H=910mm/Wt=187kg		
Engine		
Specifications: Air-cooled, 4-cycle, OHV gasoline engine		
Transplant speed: 0.28-0.77 m/s		
Fuel tank: 4L		
<b>Sub-Total for EO</b>	<b>P -</b>	<b>P 490,000.00</b>
<b>GRAND TOTAL</b>	<b>P 174,600.00</b>	<b>P 700,000.00</b>

Prepared by:



ARTHUR L. NOCELO  
 Manager

Certified Funds Available:



PRIMITIVA N. MAGNO  
 Treasurer, TUBFARMCO



JEFFREY D. VARELA  
 Accountant III, DOST-MIMAROPA

Approved:

Dr. MA. JOSEFINA P. ABILAY  
 DOST-MIMAROPA  
 Regional Director

