

Philippine Rural Development Project

Executive Summary

- A. Project Title : Construction of Ten (10) Units Seaweed Dryer cum Storage
- B. Project Location : Brgy. Sabang, Sebaste and San Isidro, Municipality of Sibunag
Brgy. Panobolon, Municipality of Nueva Valencia
- C. Project Category : Construction
- D. Project Scale/Dimension : 175 square meters Dryer
25 square meters Storage
- E. Project Proponent : Provincial Government of Guimaras (PGG)
- F. Implementing Unit : Provincial Engineering Office (PEO), Provincial Government of Guimaras
- G. Total No. of Barangays of the Municipalities Covered : Sibunag = 14; Nueva Valencia = 22
- H. Mode of Implementation : By Contract
- I. Capacity of the Storage : 175 sacks @ 50 kilograms per sack for two batches
- J. Number of Dryer cum Storage :
Per Barangay

Municipality	Barangay	No. of Seaweed Dryer cum Storage
Sibunag	Sabang	3
	Sebaste	2
	San Isidro	2
Nueva Valencia	Panobolon	3

- K. Number of Beneficiaries :
Per Barangay

Municipality	Barangay	No. of Beneficiaries
Sibunag	Sabang	60
	Sebaste	40
	San Isidro	30
Nueva Valencia	Panobolon	80

L. Total Project Cost and Cost Sharing	:	PhP10,903,958.43
WB Loan Proceeds	:	PhP 8,723,166.75
GoP		PhP 1,090,395.84
PLGU Equity	:	PhP 1,090,395.84

M. Economic Indicators

1) Economic Net Present Value (ENPV)(000’):		PhP 6,994.93
2) Economic Internal Rate of Return	:	25.8%
3) Benefit Cost Ratio	:	1.50

N. Conclusion and Recommendations :

Based on the positive results of the analysis of the market, technical, operational, social, environmental, financial and economic aspects of the proposed subproject – Construction of Ten (10) Units Seaweed Dryer cum Storage in Sibunag and Nueva Valencia, Province of Guimaras, it has been found to be viable. Thus, it is highly recommended for inclusion and approval in the DA-PRDP’s sub-project.

SOCIAL ANALYSIS

i. Subproject Beneficiaries

A total of 130 seaweed growers of Brgys. Sabang, Sebaste and San Isidro, Sibunag and 80 seaweed growers of Barangay Panobolon, Nueva Valencia are the direct beneficiaries of the subproject. Fifty seven (57) percent or 119 of them are female and 43% are male. Most of the beneficiaries are housewives who wanted to help their husband in providing additional income for the family. The seaweeds production and marketing project being considered a family enterprise would provide the venue and the opportunity for the wives and some able-bodied members of the family to partake and contribute income to the family.

Series of meetings were conducted by the PGG/PPMIU in the four barangays for project orientation and organizational strengthening.

ii. Indigenous Cultural Community/Indigenous Peoples (ICC/IP)

There are no known Indigenous People (IP)/Indigenous Community particularly in the area where the subproject will be situated. It is sea-based thus, it will not in any way affect Indigenous People Community in the upland areas. A certification from the MLGU will be secured to this effect.

iii. Site and Right-of-Way acquisition

The site to be utilized for the subproject will be in the Mariculture Zone of the municipality. The location does not obstruct the navigational lane and other fishing activities in the area.

iv. Damage to standing crops, houses and/or properties

No damage to standing crops, houses and properties are foreseen as a result of the subproject. To mitigate any adverse effect in the coastal ecosystem, no construction will be allowed in mangrove areas and seagrass beds.

v. Physical and Economic Displacement of Persons

No known activities which shall physically displaced any persons during the implementation of the subproject. No livelihood will be affected during subproject implementation. Members of the fisherfolk association were residents of the said barangay therefore; implementation of the subproject will even help increase employment rate in the respective coastal area and will eventually increase the income of seaweed growers.

vi. Grievance Investigation and Resolution Process

Households or groups of households wishing to provide feedback and/or complain about the effects of PRDP activities on their property, production system, economic well – being, spiritual life, environmental quality, or any other assets of their lives shall make their complaint using the standard complaint form provided by the GPPs. The Grievance Investigation and Resolution process is outlined below:

Step 1: Feedback/Complaint Form will be accomplished by beneficiaries, affected persons (APs) households (AHs) or groups of households and sent to the GPP of the relevant body (PSOs, RPCOs, or LGUs).

Step 2: Feedbacks and complaints will be recorded in the registry. In cases of complaints, the GPP will assess the validity of the grievance. If evaluated as valid, within 10 days from the date the complaint is received, the relevant LGUs GPP will organize meetings with the relevant agencies/ contractors to discuss how to resolve the matter. All meetings will be recorded and copies of the minutes of meetings will be provided to beneficiaries or APs/ AHs.

Step 3: The relevant LGU Governor/ Mayor's Office shall take such mitigation measures as agreed in meetings from step 2 within 10 days, or some other period acceptable to the parties referred to in step 2.

Step 4: When the complaint is resolved, the Complaint Form shall be signed by complainant/ head of household, the relevant LGU Mayor's Office and annotated at each stage of process by the relevant LGU with copies to be sent to the concerned RPCO.

Step 5: If no understanding or amicable solution is reached, or if no response is received from the relevant LGU Governor/ Mayor's Office within 15 days after the registration of complaint, the APs/ AHs can appeal to the relevant LGU Council (Sanguniang Bayan, Panglungsod or Panlalawigan). The relevant local council will decide and take mitigation measures within one month of receiving the appeal.

Step 6: If no understanding or amicable solution is reached, or if no decision or mitigation measure is received from the relevant LGU Council within 15 days after the registration of complaint, the APs/ AHs can appeal to the relevant RPCO GPP. The concerned RPCO will decide and take mitigation measures within one month of receiving the appeal.

Step 7: When the complaint is resolved, the Complaint Form shall be signed by complainant/ head of household, the relevant LGU, the RPCO, and annotated at each stage of process by the GPP of the PSO.

Step 8: If no understanding or amicable solution is reached, or if no response is received from the relevant RPCO within 15 days after the registration of complaint, the APs/ AHs can appeal to the PSO GPP. The PSO will provide a decision and take mitigation measures within one month of receiving the appeal.

Step 9: When the complaint is resolved, the Complaint Form shall be signed by complainant/ head of household, the relevant LGU, the PSO and annotated at each stage process by the GPP of the NPCO.

Step 10: If no understanding or amicable solution is reached, or if no response is received from the relevant PSO within 15 days after the registration of complaint the APs/ AHs can appeal to the NPCO GPP. The NPCO will provide a decision and take mitigation measures within one month of receiving the appeal.

Step 11: When the complaint is resolved, the Complaint Form shall be signed by complainant/ head of household, the relevant LGU, and the NPCO with copies to be sent to WB.

Step 12: If the AP/ AH is still not satisfied with the decision of the PSO in the absence of any response within the stipulated time, the AP/ AH as a last resort may submit his/ her case to the court, in which decision is final. (Source: Philippine Rural Development Project Operations manual Integrated Environment and Social Safeguards Framework; pp 34-35)

ENVIRONMENTAL ANALYSIS

i. Natural Habitat

The location of the project will be in the shoreline specifically in the coastal areas of Barangay Sabang, Sebaste and San Isidro in Sibunag and in Panobolon, Nueva Valencia. The coastal area is characterized with white to brown sand mixed with coral rubbles and stones. Water depth in the area ranges from 0 to 2.5 meters depending on the tidal fluctuation. Water is highly transparent with current relatively mild at normal weather condition. The bottom substrate is sandy and rocky with sporadic patches of seagrasses (i.e. Halodule, Enhalus and Thalassia) and algae (i.e. Padina). Some living bivalves, univalves and common crustaceans and aquatic invertebrates are still notable in the area. Fishes (i.e. Siganids, Terapon and Mulletts etc.) and others considered not commercially important species are also thriving in the area. The project will not encroach protected areas and biotic resources like mangroves and seagrasses.

ii. Physical, Cultural Properties or Resources

The proposed constructions of seaweed dryer cum storage will not affect any cultural or heritage site. Moreover, there is no identified Indigenous People (IP) that will be displaced or any IP present in the area as supported by the Certification from the Local Chief Executive of Sibunag and Nueva Valencia on their seaweed production and marketing enterprise and is not within or adjacent to any ancestral domain.

iii. Chance Archaeological/Paleontological Finds

There are no observed monuments or archaeological sites in the area based on the historical map of the province. Nonetheless, the PGG will disseminate and follow the procedure on chance archaeological/paleontological finds for PRDP subprojects. Specifically, should there be artifacts, bones or other objects of interest that will be discovered during the subproject implementation, activities within the 10m radius from the discovery point will be suspended and the PGG Contract Administrator/PEO or Governor will be informed for appropriate actions. The highest officer of the contractor shall immediately take proper photographs of the items and secure these and the site. The PGG Contract Administrator/PEO or Governor has to immediately report the discovery to the RPCO Social and Environmental Safeguards (SES) Officer and Engineer or RPCO head, the National Museum, and the local police for protection and fitting actions.

Chance Archaeological/ Paleontological Finds Procedure for Subprojects

1. This procedure shall be made known to the Local Government Unit (LGU) Contract Administrator, the Contractor, the Site Engineer, all Construction Foremen and all On-Site Supervisors.
2. A copy of this procedure shall be made available at the construction site at all times.
3. Upon discovery of artifacts, bones or other objects of interests, all digging, drilling and other earth moving activities within the radius of 10 meters from the discovery point shall be immediately suspended. The highest ranking officer of the Contractor present at the site must impose the suspension of activities and immediately inform the LGU Contract Administrator or if not available, the highest ranking LGU officer available.
4. The highest ranking officer of the Contractor at the construction site with or without the LGU Contract Administrator or LGU representative shall immediately take photographs of the artifacts, bones or other objects of interest. The photographs must be taken at close-ups and at distant range or at wide-shots placing the objects at the approximately the same point and position where they were found and showing other markers.
5. The highest ranking officer of the Contractor at the site must ensure that the site is secured and any artifacts, bones or objects of interests already removed from the site must also be places in a secured place or container.
6. The LGU Contract Administrator and/ or highest ranking Officer from the LGU shall immediately report the discovery simultaneously to: (a) the Regional Project Coordination Office (RPCO) Social and Environmental Safeguards (SES) Officer and Engineer or if not available, the highest available ranking Officer of the RPCO; and, consistent with RA 8492, (b) to the National Museum.

The following are the contact numbers of the Archaeology Division of the National Museum:

Email: archaeology@nationalmuseum.gov.ph

Telephone Numbers:

Curator: (+632)527-03-08 Administrative: (+632)527-12-35

Records Section: (+632)527-11-40

Underwater Telephone: (+632) 527-11-57

Photographs of the finds and the site shall also be sent to the RPCO SES Officer and to the National Museum, preferably through email.

7. The highest ranking LGU official at the time shall also immediately inform the local police and the civil authorities who, consistent with Section 20 of RA 8492, shall preserve and protect the site from illegal exploitation until such time as the National Museum shall have established control over them.
8. Upon knowledge of the discovery and prior validation, the RPCO Head shall also inform the PSO Head and NPCO Head who shall coordinate with the national Museum or further actions or evaluations.
9. Depending on the national Museum's evaluation, actions and recommendations, the LGU, RPCO, PSO and NPCO shall then determine the fate of the Subproject.
10. Any delay due to suspension or any discontinuation or termination of the Contract through or as a result of the application of this Procedure shall be considered "force majeure" and hence the applicable provisions of the Contractors Contract (particularly, the provisions described in Section 20 of the General Conditions Philippine Bidding Documents) shall be applied. (Source: Philippine Rural Development Project Operations manual; pp 142-143)

iv. Terrain, Soil Types and Rainfall

The proposed project site is located in the municipal waters of Sibunag and Nueva Valencia. It has a rolling terrain with calcareous Guimaras gravelly loam. Generally, Guimaras belongs to Type II rainfall pattern. Rainy season usually starts from May until December. In 2014, the total rainfall was 75.95 mm with an annual mean of 6.33 mm and an average annual temperature of 26.24⁰C (NMRDC, cited in PPDO-Guimaras 2014).

v. Hazards/Risk Assessment

Seaweeds culture is considered as one of the most environmental- friendly method the project will adopt and practice, like avoiding of areas with flourishing seagrass covers, the project will not generate any negative impact or hazard to the environment, in fact, because seaweeds are classified as plant, they are autotrophic

or self-nourishing where, in the process of its growth, it absorbed dissolved essential nutrients from the water, and through the process called photosynthesis, seaweeds manufacture its own food, and in effect they are absorbing carbon dioxide and producing oxygen in return, which is needed by other living aquatic animals in the surrounding waters. The seaweeds production project will have another positive impact to the environment, because it will serve as food for the fishes and other aquatic animals thriving in the area particularly the herbivorous. This will also serve as habitat and breeding ground for some fishes and other aquatic animals aside from its cooling effect to the aquatic environment being an aquatic plant performing photosynthetic activity. Thus, this seaweeds culture project will certainly help in making the area favourable for the thriving aquatic animals, and is viewed to contribute for the improvement of biodiversity in the area being also considered as the channel of nutrient and energy subsidy for the aquatic environment.

The only hazard and risk in this seaweeds production and marketing project, is the unpredictable occurrence of natural weather disturbances. The devastating typhoons for instance and excessive heat during summer months, particularly when El Niño phenomenon hits, causing the water temperature to rise beyond the thermal capacity limits of the seaweeds, which hinders its growth, then resulting to disease (i.e. ice-ice disease) or even massive mortality on the cultured seaweeds. The “ice-ice disease in early detection and at minimal extent can be mitigated by removing and properly disposing the affected seaweeds’ thalus. Transferring or positioning the seaweeds culture lines in other areas with suitable water condition is also another “ice-ice” disease mitigating option.

On the other hand, the occurrence of typhoons is the only identified risk for the seaweed dryer cum storage. The roofing is the most vulnerable part however this can be mitigated by the covering the roofing with the black net.

vi. Status of Environmental Clearances

The Provincial Government of Guimaras through the PPMIU will apply for Certificate for Non-Coverage from the Environmental Management Bureau of the Department of Environment and Natural Resources (DENR) Region 6. Preparation of documents as attachments are on-process.

Based on the assessment of the personnel of the Environmental Management Preparation of the Environmental and Social Management/Mitigation Plan (ESMP) based on the Assessments

- a. Environmental Impacts and recommendations: (See Annex E-1)