

**DOST Form 5**

**PROJECT WORK PLAN**

**(1) Program Title:**  N/A

**(2) Project Title: Propagation and conservation of the top priority plants in the forests over limestone of Samar Island Natural Park, Samar Island, Philippines**

**(3) Project Duration (number of months): 24 months** **(4) Project Start Date:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **(5)** **Project End Date:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

| **(6) OBJECTIVES**  *(with % weight)* | **(7) TARGET ACTIVITIES** | **(8) TARGET ACCOMPLISHMENT**  *(with % weight and objectively verifiable indicators)* | **(9) YEARLY AND QUARTERLY TARGETS** | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Y1 *(62%)***  *(with % weight per year and quarter)* | | | | | | **Y2 (38%)**  *(with % weight per year and quarter)* | | | | | | **Y3**  *(with % weight per year and quarter)* | | | | | |
| **Q1** | **Q2** | **Q3** | **Q4** | **Total** | **Weighted Yearly total** | **(d1)**  **Q1** | **(d2)**  **Q2** | **(d3)**  **Q3** | **(d4)**  **Q4** | **(d5)**  **Total** | **Weighted Yearly total** | **(e1)**  **Q1** | **(e2)**  **Q2** | **(e3)**  **Q3** | **(e4)**  **Q4** | **(e5)**  **Total** | **Weighted Yearly total** |
| 1. Assess the effectiveness of existing cold storage facilities and feasibility of establishing shared cold storage solutions for managing excess vegetable supply at the village level   ***(25%)*** | 1. Apply different machine learning algorithms in implementing data mining activity and/or manual data mining 2. Compile different information being generated from the data mining. 3. Validate the generated information | All the required information e.g., different physicochemical and structural properties of the nanomaterials, including biological endpoints will be generated  ted ***(25%)*** | 20% | 40% | 40% |  | 100% | 25.00% |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Compile all the necessary nanodescriptors and evaluate their usefulness according to the target models ***(30%)*** | 1. Collect the suitable nanomaterials descriptors | Complete list of nanodescriptors to be used will be compiled ***(15%)*** |  | 25% | 25% | 25% | 75% | 11.25% | 10% | 15% |  |  | 25% | 3.75% |  |  |  |  |  |  |
| 1. Collect data on available models/software that are capable of performing in silico toxicity evaluation | Summary of the different models available ***(10%)*** |  | 25% | 25% | 25% | 75% | 7.50% | 10% | 15% |  |  | 25% | 2.50% |  |  |  |  |  |  |
| 1. Assess the usefulness of each identified model, according to the desired outputs. | Determine applicablity domain (AD) of the developed models ***(5%)*** |  | 25% | 25% | 25% | 75% | 3.75% | 10% | 15% |  |  | 25% | 1.25% |  |  |  |  |  |  |
| 1. Screen and assess the biological identity of the chosen nanomaterials, reflecting their potential interactions with biological environments in different media ***(10%)*** | 1. Perform structure optimization (of all functional ligands) | Implications of the nanoparticles interaction with biological system ***(1i0%)*** |  |  |  | 30% | 30% | 3.00% | 35% | 35% |  |  | 70% | 7.00% |  |  |  |  |  |  |
| 1. Evaluate the behavior of the nanoparticles in biological systems (based on available information) |
| 1. Use appropriate computer modeling packages to evaluate and optimize the detailed structure and chemical properties of the chosen nanomaterials ***(15%)*** | 1. Perform Quantum Mechanical calculations or molecular dynamics simulations | Detailed structure and chemical properties of the chosen nanomaterials ***(15%)*** |  |  |  | 10% | 10% | 1.50% | 20% | 70% |  |  | 90% | 13.50% |  |  |  |  |  |  |
| 1. Apply/Use the identified suitable descriptors in evaluating the in silico toxicity of the chosen nanomaterials using the available predictive models ***(20%)*** | 1. Use the identified descriptors to evaluate the in silico toxicity; data of the chosen nanomaterials | In-silico toxicity data of the selected nanomaterials will be generated ***(10%)*** |  |  | 20% | 30% | 50% | 5.00% | 20% | 30% |  |  | 25% | 5.00% |  |  |  |  |  |  |
| 1. Validate externally the models by comparing the predicted data of the established nanomaterials with that of the available data kept hidden before the modeling process (from literature) | Externally validated models with sufficient predictive performance ***(10%)*** |  |  | 20% | 30% | 50% | 5.00% | 20% | 30% |  |  | 25% | 5.00% |  |  |  |  |  |  |
| 1. Modify, if necessary, the models depending on the obtained results |

| **(10) EXPECTED OUTPUTS (6Ps)** | **YEARLY AND QUARTERLY TARGETS** | | | | | | | | | | | | | | | **Grand Total** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Y1** | | | | | **Y2** | | | | | **Y3** | | | | |
| **Q1** | **Q2** | **Q3** | **Q4** | **Total** | **Q1** | **Q2** | **Q3** | **Q4** | **Total** | **Q1** | **Q2** | **Q3** | **Q4** | **Total** |
| **Publications** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *1 article published in scientific journal* |  |  |  |  |  | 1 |  |  |  | **1** |  |  |  |  |  | **1** |
| **Patents/IP** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Two (2) Models and workflow of MHW assessment and prediction* |  |  |  |  |  | 1 | 1 |  |  | **2** |  |  |  |  |  | **2** |
| **Products** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Two (2) Developed models* |  |  |  |  |  | 1 | 1 |  |  | **2** |  |  |  |  |  | **2** |
| *Two (2) Web applications (i.e., MHW tracker) and toolbox (i.e. packages for SST analysis) can generate additional income for the university* |  |  |  |  |  | 1 | 1 |  |  | **2** |  |  |  |  |  |  |
| **People Services** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *Seven (7) Students (BSc and/or MSc) trained in analysis and modelling of thermal conditions in the marine environment* |  |  |  | 3 | 3 | 4 |  |  |  | **4** |  |  |  |  |  | **7** |
| **Places and Partnerships** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *2 MOUs with selected LGU/s, government agencies (e.g., PAGASA), and MSI* |  |  |  | 2 | 2 |  |  |  |  |  |  |  |  |  |  | **2** |
| **Policy** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *1 Policy Brief on the Inclusion of MHW assessment to improve policies/guidelines related to Climate Change Adaptation and Disaster Risk Reduction* |  |  |  |  |  |  | 1 |  |  | **1** |  |  |  |  |  | **1** |

| **(11) Potential Impacts:** | |
| --- | --- |
| **Social Impact** | **Economic Impact** |
|  |  |

| **(12) Risks Management Plan** | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Objective** | **Risks** | **Risk Rating** | | | | | | **(13) Mitigation/Action Plan (Use separate sheet if necessary)** |
| **Impacts on Timeline** | | **Impact on Budget** | | **Probability** | |
| **Rating** | **Reason** | **Rating** | **Reason** | **Rating** | **Reason** |
|  |  |  |  |  |  |  |  |  |
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**Prepared by: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Noted by: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Project Leader Head of Implementing Agency**

**DOST Form 5**

**PROJECT WORKPLAN, EXPECTED OUTPUTS, RISKS AND ASSUMPTIONS**

**I. General Instruction:** Submit through the DOST Project Management Information System (DPMIS), <http://dpmis.dost.gov.ph>, the project workplan, expected outputs, and risks and assumptions together with the project proposal. Also, submit four (4) copies of these forms together with the proposal. Use Arial font, 11 font size.

**II. Operational Definition of Terms:**

**1-2. Program/Project Title**- the identification of the Program and its component projects.

**3-5. Project Duration** and **Project Start/End Date**-refer 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. Objectives**- statements of the general and specific purposes to address the problem areas of the project. Each objective should have a corresponding percentage weight relative to other project objectives. Project Leaders, in close coordination with the Monitoring Agency, should assign the percentage weight for each objective before the program/project begins.

**7. Target Activities**- set of fixed works that needs to be conducted for the achievement of the project objectives.

**8.Target Accomplishments**- measurable and positive results of completing project activity/ies. Each target accomplishment should be assigned with weights which should sum up to the assigned percent weight of its corresponding objective.

**9. Yearly and Quarterly Targets –** distribution of work for each activity per quarter and per year. Percent weight per quarter must be assigned by the Project Leader, in coordination with the Monitoring Agency, prior to the start of program/project implementation. Per cent weight for each target accomplishment must total 100 percent for the whole duration of the project.

The total percentage target per year should also be determined at the start of the program/project implementation. It is the summation of all weighted yearly target accomplishments. Meanwhile, weighted yearly target accomplishment is computed by multiplying the weight of each target accomplishment (see assigned percentage in number 8), and the sum of the percentage target per year.

**10. Expected Outputs**- deliverables of the project based on the 6Ps metrics (Publications, Patents/Intellectual Property, Products, People Services, Places and Partnerships, and Policy). Outputs must be specific and objectively verifiable.

1. **Publication** -contribution to the general body of knowledge through scientific publications
2. **Patent/Intellectual Property-** proprietary invention or scientific process for potential future profit.
3. **Product-** invention with a potential for commercialization.
4. **People Services-** people or groups of people, who receive technical knowledge and training. Differentiate in the workplan the people trained through non-formal training and those capacitated through the conduct of their research through the project.
5. **Places and Partnership -** linkages forged and facilities established because of the study. Differentiate the laboratories and S&T facilities established through the project and the partnerships (e.g., MOA/MOU) forged.
6. **Policy-** science-based policy crafted and adopted by the government or academe as a result of the study.

Total yearly target for the 6Ps is computed as the sum of all final targets for the year.

**11. Potential Impacts**

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

**b.****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.

**12. Risk Management Plan**- refers to a plan that identifies, evaluates, and mitigates risks

**Risk**- refers to an uncertain event or condition that its occurrence has a negative effect on the project.

**Impact of Timeline –** determination of the impact of the risk on the achievement of the project’s objective according to its schedule.Risks shall be rated either as high, moderate, or low. Reasons for the rating should be provided.

**Impact on Budget –** determination of the impact of the risk to the project’s budget. Risks shall be rated either as high, moderate, or low. Reasons for the rating should be provided.

**Probability –** the chance of the risks from happening. It shall be rated either as high, moderate, or low. Reasons for the rating should be provided.

**13. Mitigation/Action Plan-** proposed activities to address the risks.