



REPUBLIC OF THE PHILIPPINES
NATIONAL IRRIGATION ADMINISTRATION
CENTRAL OFFICE

**REHABILITATION AND PROTECTION OF 163 WATER RESOURCES
SUPPORTING IRRIGATION SYSTEMS**

Rationale:

The proposed program aims to improve the present bio-physical condition of the watershed supporting irrigation system and reduce the rapid denudation of the forest cover and erosion caused by natural and human activities within and near the catchment area. The improvement of degraded irrigation water resources will increase food production by making the irrigation system sustainable and viable.

Degradation of irrigation water sources is the major problem contributing to the accelerated soil erosion that result in sedimentation confronting the sustainable operation of irrigation systems in the country. This problem entails an increase in operation costs and maintenance of irrigation facilities requiring frequent rehabilitation. Therefore, rehabilitation and protection of water resources supporting the 163 irrigation systems was proposed to maintain efficiency and serviceability of irrigation systems and reduce operation and maintenance cost.

Objective:

The major objective of this program is to address issues and concerns of accelerated soil erosion and sediment deposition to the irrigation facilities resulting in inefficient delivery of irrigation water supply in the service area. It is anticipated that after the program has been implemented, the Agency will improve performance of the irrigation system including equitable water distribution in timely and water deliveries of irrigation water supply in the service area. As a result, the improvement of performance of the irrigation system may yield to higher irrigation cropping intensity and create a higher opportunity of farmers for better agricultural production. In addition, the reduction of cost for frequent desilting may translate to a better economic and financial viability of NIA.

Specifically, the program aims to:

- 1) Identify and delineate NIA management area of concern within the irrigation water sources covering the reservoir's buffer zone, dam site's, irrigation facilities, river channel and tributaries;
- 2) Assess the irrigation river sources "health" in terms of land cover, land use, cropping patterns, soil erosion, conservation practices and related concerns in averting accumulation of alluvial sediments in the reservoir, channel, and its tributaries affecting the efficiency and function of irrigation systems;
- 3) Formulate and implement management plans in collaboration with DENR and stakeholders for the rehabilitation and protection of Irrigation Water Resources (IWR);

- 4) Identify appropriate practices and corresponding strategies in the rehabilitation and protection of water resources supporting irrigation system that may duplicate in the subsequent plans;
- 4) Institutionalize responsibilities of each stakeholder for purposes of efficient and effective land utilization and management; and
- 5) Allocate budget for the implementation of plans and programs for the 163 NIS.

Coverage and Activities:

The total coverage of the program primarily focuses on the existing 163 National Irrigation System (NIS) of National Irrigation Administration (NIA) nationwide within the initial and additional Critical Watershed under the list of the approved MOA of DENR and NIA series of 2019 categorized as critical watershed supporting irrigation that require immediate rehabilitation and protection.

The first year (CY 2021) of the program is the formulation of water resources irrigation management plans of 30 NIS, three (3) of which, will serve as a pilot area representing Luzon, Visayas, and Mindanao that will include initial implementation. The succeeding five-year will be the implementation of the approved Management plans of the 30 NIS. The remaining 133 NIS will undergo the same process in batches in the following years.

Monitoring and Evaluation system will be established in the early stage of the plan to ensure the compliance as well as corrections measures will be taken into consideration at early stage of the implementation. The NIA-RIO/IMO will undertake the regular review and monitoring of the implementation and evaluate the outcome with appropriate recommendation. The report will be validated by to NIA-CO semi-annually. As part of the monitoring mechanism, the RIO and the IMO will evaluate the implementation and outcome of the Plan.

The program will have implications on all activities within the Agency that require participation of different field offices of NIA. The approach will require formalization of the PPD-EWMS to spearhead the formulation and implementation of the plans and a series of consultation meetings, workshops and consultation with the concerned stakeholders, will surely create additional institutional roles and responsibilities of the Agency.

Upon approval of this proposal, a letter will be crafted requesting permission to the Top Management to implement the Program as well as formalize the members of the Team from the PPD-ED and RIO to spearhead the formulation implementation of the plan supporting irrigation system. The activities are in coordination and assistance of the DENR and other stakeholders concerned. **Table 1** shows the phases and activities of plan formulation and implementation.

Table 1. Phases, activities and outputs

Phases of the Project	Activities CY 2021	Outputs
1. Preparatory Activities	A. <u>Preparatory Phase</u>	
	1. Preparation of Activities and Budgetary Requirements	1. Orientation of Field Offices, Approved Proposal for implementation, Prototype Terms of Reference, Implementation Plan and Budgetary Requirements
	2. Formation of Team	2. List of Project Team members from Central Office & RIOs -Approved Memorandum by the Administrator
2. Formulation Phase for the 30 NIS	B. <u>Formulation Phase</u>	
	1. Selection three (3) Pilot NIS for Luzon, Visayas and Mindanao for the Plan Formulation and Implementation	1. List of NIS Selected in Luzon, Visayas and Mindanao
	2. Selection of water resources supporting 27 NIS for the Plan prioritization	2. 27 NIS (2 NIS per Region) recommended for formulation of Plan by the concerned RIOs/Field Offices
	3. Preparatory activities of RIOs/Field Offices	3. Approved TOR by Administrator with attached Approved POW and ABC.
	4. Procurement of Consultants	4. NTP and approved Contract for the Hired Consultants/Firm
	5. Hiring of Personnel/ Consultants to formulate and implement plans.	5. Consultant/Technical Personnel hired as Environmental Officer/Region
	6. Formulation of Plan for 30 NIS including Pilot Area	6. Approved Plan by the Administrator
	7. Review and Indorsement of formulated plans	7. Approved plans by the Administrator
3. Initial Implementation Phase for 3 Pilot (2021)	Implementation of Plan for three Pilot Areas (Luzon, Visayas and Mindanao)	Area Planted, species planted, No. of seedling procured and location Maps, etc.

Phases of the Project	Activities	Outputs
Succeeding Years		
4. Implementation Phase		
- Continuation of implementation for 3 Pilot NIS (2022)	Continuing implementation of 3 pilot areas	Implemented as per Approved Plan
- Implementation of 27 NIS	Implementation of Plan for 27 NIS	Implemented as per approved Plan
5. Formulation of Plan for the 30 NIS (2 nd set)	Repeat Formulation Process	Approved Plans
6. Monitoring and Evaluation	Monthly Monitoring by the Field Office Semi-Annually by C.O	Monitoring and Evaluation Report

Budgetary Requirements:

The budgetary requirement for the program is estimated to be Php 3.810 Billion for 11 years of formulation and implementation for rehabilitation and protection of water resource supporting 163 NIS (Table 2).

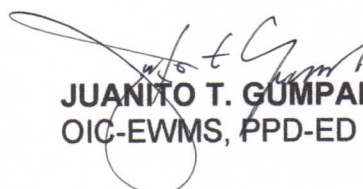
Table 2. Implementation Schedule and Budgetary Requirement

Activity	Year												Unit Cost (P'000)	Qty	Estimated Cost (P'000)
	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12			
A. Preparatory Phase													NA		
1. Formation of Project Team	I														
2. Formalization of Project Team	I														
C. Formulation Phase															
3. Three (3) Pilot Area	■												4,533.00	3 NIS	13,600.00
4. 27 NIS for Plan Formulation	■												3,200.00	27 NIS	86,400.00
5. Initial Implementation of the Three Pilot Area	I													3 NIS	
TOTAL for CY. 2021															100,000.00
C. Implementation Phase															
1. Three Pilot Area		■	■	■	■	■	■	■	■	■	■	■	20,152.00	3 NIS	60,456.00


2. 27 NIS										20,152.00	27 NIS	544,104.00
D. Formulation Plan for 133 NIS										3,200.00	133 NIS	425,600.00
E. Implementation of 133 NIS										20,152.00	133 NIS	2,680,216.00
Total												3,810,376.00

For the initial year, the activities will cost an amount of Php 100 Million for the formulation of 27 Plans and 3 Pilot Areas for Luzon, Visayas, and Mindanao including initial implementation for the three pilot areas as training venue of the field implementer.

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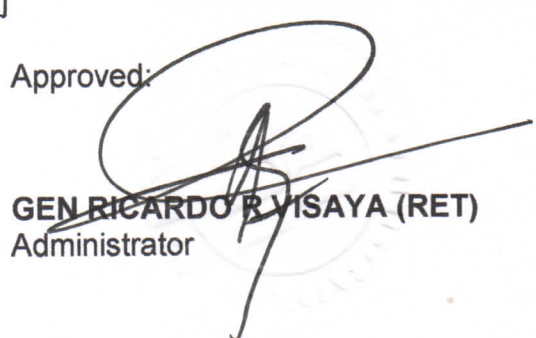

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