

COMPREHENSIVE PROJECT PROFILE

I. PROJECT DESCRIPTION

1. **PROJECT TITLE** : **Enhancing Farmers Agricultural Production through Development of Irrigation System in the Rural Area**

2. **PROJECT TYPE** : **Capital Formation and Technical Assistance**

3. **PROJECT COMPONENT:**

- 3.1 **Infrastructure Development Support Facilities**
- 3.2 **Installation of Radiator Engines and Powerhouse**
- 3.3 **Canal Designing and Pipelines Installation**
- 3.4 **Institutional and Human Capability Building Program**
- 3.5 **Integrated Reforestation Project**
- 3.6 **Monitoring and Evaluation**



4. **PROJECT LOCATION:** **Barangay Celing, Antequera, Bohol**

II. **PROJECT STATUS** : **Proposed with Project Idea**

The is a new project intended to provide irrigation facilities, to supply water to irrigable land of about 35 hectares of rainfed rice paddies presently cultivated by 47 farmer families in Barangay Celing. The barangay had existing well-organized Farmers Association and they now cultivating their ricelands using the traditional method of farming and mostly dependent of rainfed. The source of water for developing irrigation system is coming from the underground spring located near to the Barangay Hall of Celing, which has a capacity dependable flow of about 25 liters per second during dry season and about 98 liters per second during wet season. In extreme cases, the discharge of surface water from the river is to be stored into a water reservoir to have enough supply of water for irrigation purposes.

III. PROJECT JUSTIFICATION

1. Project Background

The present agricultural land area of the municipality of Antequera is 96.82% or 9,659 hectares. Out of this area only 4,101 hectares or 42.46% are presently used or devoted to crop production. The remaining 5,557 hectares of agricultural land is potential for other agricultural production (as seen table below).

Agricultural land Categories Municipality of Antequera

Category	Area (has.)	% To Total
Crop Production Area	4,101.63	42.46%
Potential Agricultural Land	5,557.64	57.54%
Total land Area for Agriculture	9,659.27	100.00

Source: Municipal Agricultural Office, Antequera 2005

Vegetables, fruit trees, root crops, corn and coconut are the leading crops in the municipality. Coconut occupies a large area percentage, followed by root crops, corn and rice. This level of production is not sufficient to meet the present food and future requirement of the growing population. By and large farming in the municipality specifically on rice relies on traditional and conventional methods utilizing animal powered farm implements such as plow and harrow. Improved varieties of seeds and planting materials are occasionally used while most of its farmland is rainfed.

The municipality has two existing communal irrigation (CIS) systems that are located in Celing and Obujan. The open line canal system is not properly maintained due to lack of funds. The town's water demand for irrigation purposes is estimated to 3,024 cu.m./day to irrigate the 0.70 sq.km of land located in 2 barangays. The presence of small water-impounding projects provides the much-needed water for the 100 hectares rice producing area. Other support facilities include 4 wheel tractors, 24 - hand tractors, 28 solar dryers, 284 copra dryer, 146 thresher and about 6 blowers. For post harvest support facilities these include 23 multi-purpose drying pavements and 2 rice mills.

The Municipal Agricultural office is composed of 3 personnel that provide extension services for the development of the agriculture sector. These services are mainly focus on crop production, livestock and facilities with a strong support from different line agencies, NGOs and private sector. Aside from the agricultural extension services, the municipality has a Breeding Station operated by the Office of Provincial Veterinarian located in Can-omay.

Among the major problems in relation to agriculture sector are the following

- Insufficient water supply for agricultural use
- Low productivity in agricultural crops e.g . rice
- Lack of capital input for agricultural production and marketing mechanism
- Lack of demo farms for rice and other crops

The municipal direction and thrust of Antequera is geared towards an ecotourism and agri-industrial destination in the province. Various efforts are still to be done in order to attain the long desired state of the municipality in the arena of adequate infrastructure support facilities in agriculture sector.

The 2005 Local Poverty Database in Antequera shows that, the families living below the income threshold comprises 56% or 1,675 households which ranked 1st followed by 1,184 or 40% of the households falls below the food threshold and the sanitation problem ranked number three (3), of the top 12 poverty indicators in the municipality. These are categorically distributed in all barangays, which really need immediate attention.

2. Project Linkages

Increased production in rice and other agricultural crop production are the major thrusts for setting food sufficiency in the town. Due to some constraint on infrastructure post harvest facilities and financial assistance, extension services

could hamper the realization of the initiatives. At present, the LGU had already established a good linkage to the Provincial Agriculture Office, national government, NGOs and foreign agencies that are specialized on the sustainable farming method.

Under the approved Bohol Agricultural Master Plan of 2005-2022 in the province, the Municipality of Antequera is identified as the key production areas of the major commodities specifically on rice, corn and coconut under the cluster production zone in the province.

3. Project Objectives

- To increase food production and income of the farmers in the target barangays
- To ensure proper utilization and protection of water resources for an improved agricultural infrastructure support facilities for irrigation to the inhabitants

4. Sectoral Objectives

- To provide the farmers with better access to irrigation facilities
- To increase the income of the farmer beneficiaries from Php 5,000.00 to Php15,000.00 per month
- To enhance capacity and skills of the farmers to maintain irrigation facilities
- To improve the value of self-reliance and self-sustaining as guiding principles for by the farmers to sustainable agricultural development.

5. Regional and National Objectives

The project will complement to the national agenda of alleviating poverty and improving the standard of living in rural communities. It will promote accessibility to basic infrastructure services and better access to water and trade markets.

IV. PROJECT FINANCING

1. Funds Needed

Project Activity	Estimated Cost (Pesos)
Infrastructure Development Support Facilities	300,000
Installation of Radiator Engines and Powerhouse	250,000
Canal Designing and Pipelines Installation	1, 200,000
Institutional and Human Capability Building Program	50,000
Integrated Reforestation Project at Catchment Area	100,000
Monitoring and Evaluation	100,000
T o t a l	2, 000,000

2. Project Financing/Source

Project will be funded thru the financial assistance from donors both local and foreign agencies.

3. Counterpart Funding

The Local Government Unit of Antequera and the Farmers Association in the target barangays will counterpart at least 20% in cash to be spent for trainings activity or in kind specifically on the maintenance and operation of the irrigation facilities and or depending on the agreement between the donors and the LGU.

4. Financial Viability

A. INCREMENTAL PRODUCTION:

<i>Description</i>	<i>Yield per Ha.(Cavan)</i>	<i>Has. Per /Cropped</i>	<i>Yield per Cavan</i>	<i>Price per Cavan</i>	<i>Value (pesos)</i>
Irrigated(1stCrop)	70	35	2,450	P400.00	980,000.00
2 nd Crop	50	35	1,750	400.00	700,000.00
Farm Cost				Total =	1,680,000.00
Rainfed	35	35	1,225	P400.00	490,000.00
	Annual Increment Production =				1,190,000.00

B. INCREMENTAL FARM COST:

<i>Description</i>	<i>Cost per Hectare</i>	<i>Hectare per Cropping</i>	<i>Total Cost</i>
Irrigated	P 15,000.00	35	525,000.00
Operation & Maintenance	5,000.00	35	175,000.00
Depreciation (Machineries & Equipment)			23,000.00
Farm Cost		Total =	723,000.00
Rainfed	P 8,000.00	35	280,000.00
	Annual Increment In Farm Cost		P443,000.00

The economic analysis is feasible considering that should the project will be supported by local NGO, Farmers Association and more specifically the baranagy and municipal government units.

V. PROJECT BENEFITS AND COST

1. Beneficiaries

The direct beneficiaries of the project are farmers from the 4 barangays of Poblacion, Can-omay, Villa Aurora and Celing who are presently cultivating dependently on rainfed rice paddies and in other cash crops of which the income not enough for their family daily needs. Indirectly the general consumers in the municipality will be benefited by the products, which are locally produced from the four barangays.

2. Social Benefits

The project will basically provide the farmers sufficient income and access to basic social services, which would also allow them access of their farm produce and goods to target markets. This will provide an opportunity to a number of farmers to gain access to better education and decent living, thereby reducing the poverty impact as to the level of deprivation.

3. Economic Benefits

Economically the project will improve the food sufficiency of the rural and urban farmers living in the municipality of Antequera and it will contribute to the attainment of the Bohol thrust as a leading agricultural crop producer in the country and would also stir a positive impact in the rural economy.

4. Social Cost

The project would bring positive effects hence no harmful effect e.g. pollution and resource degradation are expected.

5. Economic Cost

The project will stir a positive impact to the rural economy and provide better economic opportunities and trade markets for the farmers living in the municipality.

VI. PROJECT IMPLEMENTATION

1. Responsible Agencies

The Local Government of Antequera through the Office of the Municipal Agriculturist in collaboration with the Office of the National Irrigation Administration, Department of Agriculture, Municipal Planning and Development Coordinator, Barangay Officials and Farmers Associations are responsible in the administration and operation of the facilities.

The funding agency will evaluate the activities of the project and assess its performance through its monitoring partner, and the endorser organization or thru its own representative. The proponent of the project (Celing Farmers Association and Dansalan Creek Farmers Association), would ensure that the project is well implemented based on the approved plan and design including fund utilization and disbursement. The project participants or farmer members is responsible the maintenance and sustainability of the project beyond the project life.

2. IMPLEMENTATION SCHEDULE

The implementation of the project will last for one (1) year. Monitoring and evaluation will be done yearly through the composite team to be created by the local government unit of Antequera.

Project Activity	Implementation Schedule			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4
1. Infrastructure design preparation	—			
2. Development of irrigation facilities 2.1 Construction of water reservoir, powerhouse and installation of radiator engines 2.2 Construction of irrigation canals and installation of pipelines		—	—	
3. Communal Reforestation project	—			
4. Human Development Capability Program		—		
5. Monitoring and Evaluation	—	—	—	—

Design of the Irrigation Facilities

- **Construction of Reservoir.** Design is 6 meters diameter x 4 meters in height Water Reservoir that will store supply of water from the source with the demand in the distribution system to avoid interruption in service during repairs or power shortage.
- **Installation of Radiator Type Diesel Engines & its Powerhouse.** Installation of 2 Units RK 80 Kubota (Radiator Type) Engine coupled to a centrifugal pump #4" diameter X 35' TDH, V-belt driven mounted on a common base-plate with complete accessories inside the 2.00 x 3.00 meters powerhouse and 1-Unit RK 70 Kubota (radiator type) engine coupled with centrifugal pump with complete accessories.
- **Installation of Pipelines.** Pipelaying installation of 6" diameter and 4" diameter of UPVC transmission lines including the 2" diameter distribution lines direct to farmer beneficiaries.
- **Reforestation in the Catchment Area.** These will include the planting and maintenance of trees within the catchment area of the water sources. This will be carried out in close coordination with the landowners in the vicinity. The seedlings will be sourced from the Department of Environment and Natural Resources (DENR), Bohol Environment Management Office and NGOs. The actual tree planting activity will be spearheaded by the municipal government thru the Municipal Agriculture Office (MAO), Antequera, Bohol.

Monitoring and Evaluation Scheme

The proponent of the project will submit a quarterly report to the funding agency and other implementing partners that will contain a summary of accomplishment report of the project activities undertaken during the period.

A separate annual report will also be prepared by the proponent on the overall status operation of the project. This will include the overall performance, the actual time spent to complete their project and the amount of money utilized.

There will be a joint project evaluation and review at the end of the year to be conducted by the proponent and the funding agency together with the herein implementing partners to assess level of performance as to the project objectives, impact (outcome) of the project in the area, as well as possible replicability of the project in other barangays.

3. Administrative Feasibility

There are now existing farmers association in the proposed sites however, the technical skills and knowledge in managing the irrigation facility is not yet adequate. The Local Government Unit will establish a technical group who will assist and help facilitate in the implementation of the project.

4. Legal and Political Feasibility

The project gains full political support both the executive and legislative and its local communities. As evidenced the LGU will commit the counterpart funds to support the implementation of the project.

4. Social Acceptability

The project is strongly supported by the rural communities. The process of community participation before, during and after project implementation will be strictly followed and observed.

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