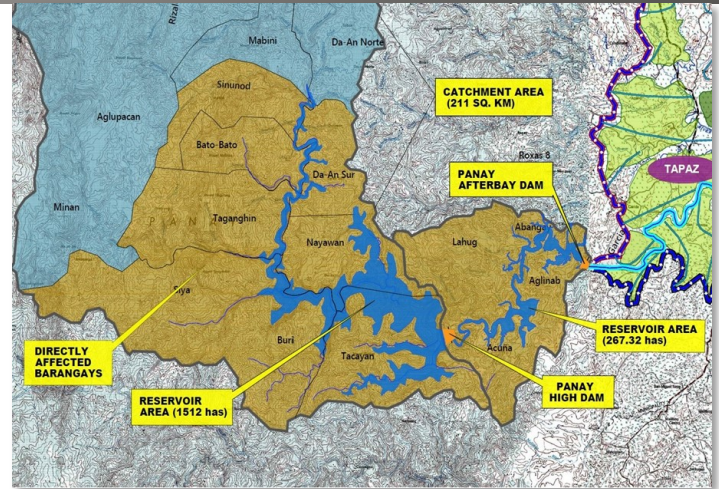


# PANAY RIVER BASIN INTEGRATED DEVELOPMENT PROJECT (PRBIDP)

CAPIZ PROVINCE

VALUE ENGINEERING AND VALUE ANALYSIS (VE/VA)  
ON-THE-JOB CAPACITY BUILDING



## The Project

The PRBIDP is a multipurpose project in Capiz Province, Western Visayas, proposed by the National Irrigation Administration (NIA) that aims to irrigate farmlands and increase rice production, mitigate flooding in frequently inundated municipalities, supply potable water to nearby residents, generate hydropower, and manage the watershed. It involves the construction of :

- (i) A multi-purpose high dam for water storage that will provide year-round supply of water for irrigation, 3 cubic meters of bulk water supply and hydroelectric power;
- (ii) An Afterbay Dam that will regulate/control the water level of the reservoir and its release to the main canal; and
- (iii) A High Line Canal and a floodway component system to help mitigate flooding downstream.

Once completed, the project can irrigate 26,800 hectares of land during the wet season and 18,773 hectares during the dry season.

## The Challenge

The entire area is prone to flooding and landslides with an approximate 11,000 hectares inundated every year. Extreme inundation, characterized by 5-meter high flood levels that last several days, is experienced in some areas.

The proposed PRBIDP is expected to significantly reduce flooding in the sub-basins of Panay River with the construction of the dam, the floodway system and the improvement of major and secondary drains. Approximately 11,460 hectares of highly susceptible land area can be converted into productive use.

## SYSTRA's Role

The joint venture of SYSTRA Philippines Incorporated and the Engineering & Development Corporation of the Philippines (EDCOP) was awarded the contract for consulting services to conduct a VE/VA Study for PRBIDP, taking into account the various components of the project and its primary, secondary and incidental functions as well as primary objectives.

Value Engineering/Value Analysis (VE/VA), as defined by the Society of American Value Engineers (SAVE International®), is the systematic

application of recognized techniques by a multi-disciplinary team that identifies the functions of a product or service to ultimately generate alternatives with higher value through the use of creative thinking.

The VEVA Workshops proper were conducted for each of the PRBIDP components/functions:

1. Optimum and sustainable use of water for agriculture and fishery development;
2. Flood mitigation;
3. Use of water for power generation and transmission and potable water supply; and
4. Watershed management.

In addition, the Consultant also:

- Conducted on-the-job capacity building for government counterpart personnel, through learning-by-doing and actual participation in the VE/VA process;
- Capacitated technical personnel from relevant oversight and implementing agencies on the VE/VA process to be adopted during the course of the study; and
- Capacitated supervisors, managers and other representatives of the public sector on the VE/VA process.

The project was completed in August 2019.

## FACTS AND FIGURES

High Dam	
height	102 m
capacity	267.77 million m <sup>3</sup>
Afterbay Dam	
height	34 m
capacity	29.71 million m <sup>3</sup>
Distance between dams	13.60 km
Length of highline canals	158.30 km
Irrigable area	26,800 ha (wet season); 18,773 ha (dry season)
Hydropower plant capacity	18.42 MW
Bulk water supply	3 m <sup>3</sup> /s