# SOLAR POWERED WATER PUMP FOR IRRIGATION

PSU Asingan - The Solar Powered Water Pump for Irrigation Application was inaugurated here on March 5, 2003 in the Domanpot Campus at 8 A.M.

Early on the said day, Rev. Fr. Diomedes S. Laguerta of the Saint Louis Beltrand Parish in this town, blessed with holy water the solar panel and the pumping station that houses the water pump's switch box.

Afterwards, Department of Science and Technology Philippine Council for Industry and Energy Research and Development (DOST-PCIERD) Executive Director, Dr. Graciano P. Yumul Jr., with President Rodolfo V. Asanion, cut the ribbon and switched on the water pump.

In few seconds, water flowed out of the pump's tube and started irrigating the one-hectare rice field owned by the campus - the testing ground of the water pump.

According to Mr. John Hermann, President of World Water Philippines, the American company that provided the solar panel to PSU, the 11/2 horse power water pump could generate 1000 liters per hour of flood irrigation to the one-hectare rice field.

He said that Dr. Artemio A. Diego, Campus Dean and Project Leader, is conducting further research on how to increase the coverage of the water pump to irrigate a larger area of farmland.

In the briefing of the project, Dr. Priscilla L. Agsalud, PSU Asingan Coordinator for Research and Extension Services, said that the project is a collaboration of World Water Philippines, PCIERD, PSU, National Irrigation Administration (NIA) and the Local Government Unit (LGU) of Asingan. She said that the World Water Philippines was the source of the solar power technology, PCIERD provided financial assistance, PSU spearheaded the research, the water pump was procured from the NIA, and the LGU of Asingan through Mayor Carlos Lopez Sr. endorsed and supported the project.

The SOLAR PHOTOVOLTAIC SYSTEM, a device in the solar panel, directly converts the solar intensity of the sun into electricity.

Herrman said that the solar powered water pump is a cost effective technology compared to the diesel-powered shallow water pumps that farmers use. He said, "Diesel-powered water pumps need servicing and repair within eight years of utility, but with the solar panels it will be functioning even until 20 years." He added that a farmer would normally spend P46 thousand pesos in installing a diesel-powered pump while the solar powered water pump only costs P36 thousand.

THE Solar Panel

WATER flows from the pump's tube to irrigate the demo farm.

TOP VIEW. The vast rice field gets flood irrigation.

He said, "During a partly cloudy day, the pump would give an 80 percent performance rate, while in a gloomy day, like the kind of skies where we expect rain, it won't function. Anyway, when the rain pours what do we need the pump for?"