

## BULANAO MINI-HYDROPOWER PLANT, CAR

While being used as an irrigation facility, the Tabuk Supply Canal 1 of the Upper Chico River Irrigation System (UCRIS) is being tapped for hydropower generation by the Bulanao Hydro Electric Plant (BHEP), located in Purok 7 of Brgy. Bulanao, Tabuk, Kalinga. The BHEP is a mini-hydro power plant that generates power through the running water from the 22-meter drop of the UCRIS canal diverted to run a turbine and afterwards re-diverted to the irrigation canal for irrigation use.

The first of its kind in the region, the P100 million-BHEP went into operation on February 28, 2016 initially producing 830 kilowatt hour (kWh). This is being sold to the Kalinga-Apayao Electric Cooperative (KAELCO) with which



the DPJ Engineers and Consultants, developer of the BHEP, signed an energy supply contract. The KAELCO provides energy to the towns of Kalinga and Apayao.

## RIZAL MINI-HYDROPOWER

The Rizal hydropower project is located at the Pampanga River Irrigation System Main Canal; It was completed on November 2015 and operated only last July 2016.

The Contractor for the construction was Pitizer and it was funded jointly by the National Development Corporation (an attached agency of the DTI) and Philippine National Oil Company. It was designed to generate 1 MW electricity. The plant has two (2) hydro-electric power plant turbines. Each turbine requires 30 cms to generate 500 kilowatts. A MOA between NIA (UPRIIS) and Nueva Ecija Electric Cooperative (NEECO) had been inked where the power will be bought by NEECO. Hydropower is a



renewable energy that is being promoted for development in order to meet the ballooning energy demands of the country.

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**Public Affairs and Information Staff**  
National Irrigation Administration  
EDSA, Diliman, Quezon City  
Tel. no. (02) 921 3741



NATIONAL  
IRRIGATION  
ADMINISTRATION

# PRIMER 2017



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## VISION

By 2020, NIA is a professional and efficient irrigation agency contributing to the inclusive growth of the country and in the improvement of the farmers' quality of life.

## MISSION

To construct, operate and maintain irrigation systems consistent with integrated water resource management principles to improve agricultural productivity and increase farmers' income.

## CORE VALUES

Commitment  
Integrity  
Professionalism

## QUALITY POLICY

We are committed to provide an efficient, effective, and sustainable irrigation services aimed towards the highest satisfaction of the Filipino farmers contributing to the country's inclusive economic growth.

We shall strive for the attainment of our strategic themes of Technical and Operational Excellence, and Good Governance through Partnership with the farmers and other stakeholders.

We shall remain dedicated to the core values of Commitment, Integrity, and Professionalism, to continually improve the NIA's Quality Management System.

**“Ang NIA at MAGSASAKA,  
magkatuwang sa GINHAWA.”**



## OBJECTIVES

- To develop and maintain irrigation systems in support of the agricultural development program of the government.
- To provide adequate level of irrigation service on a sustainable basis in partnership with the farmers and the local government units (LGU).
- To provide technical assistance to institutions in the development of water resources for irrigation.
- To improve and sustain the operation of NIA as a corporation and service oriented agency.

## POWERS & FUNCTIONS

- To investigate, study, and develop all available water resources in the country, primarily for irrigation purposes;
- To plan, design, construct, and/or improve all types of irrigation projects and appurtenant structures;

- To operate, maintain, and administer all national irrigation systems (NIS);
- To supervise the operation, maintenance, and repair, or otherwise, administer temporarily all communal and pump irrigation systems constructed, improved, and/ or repaired wholly or partially with government funds;
- To delegate the partial or full management of NIS to duly organized cooperatives or associations;
- To construct multipurpose water resources projects designed primarily for irrigation, and secondarily for hydraulic power development and/ or other uses such as flood control, drainage, land reclamation, domestic water supply, roads and highway construction, and reforestation, among others, provided, that the plans, designs and the construction thereof, shall be undertaken in coordination with the agencies concerned.

## MAGAT DAM



## 8.5 MW MARIS MAIN SOUTH CABAL HYDROELECTRIC POWER

The Construction of the 8.5 Megawatt Hydroelectric Power Plant started on December 2015 by S.N Aboitiz Power-Magat, Inc. Its target date of concerned operation is on February 2018.

Capacity	Potential Sites	Estimated Capacity (kW)
1,000 kW and above	13 sites in five regions (1, 2, MARIIS, UPRIIS, & 7) and one project (BBMP)	35, 358
500 kW to 999	19 sites in seven regions (CAR, 1, MARIIS, UPRIIS, 3, 8, & 12) and one project (BBMP)	12, 975
300 kW to 499 kW	31 sites in nine regions (CAR, MARIIS, 3, UPRIIS, 5, 6, 8, 10, & 11) and one project (BBMP)	12, 111

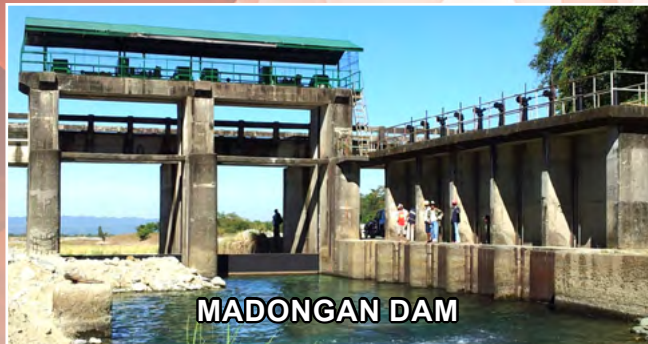


# Major PROJECTS



**JALAUUR RIVER MULTIPURPOSE PROJECT - PHASE II (JRMP-II)**

JRMP - II is a foreign-assisted project funded under the Economic Development Cooperation Fund (EDCF) Korea. The loan was approved on August 9, 2012 and took effect on November 28, 2012. The project envisioned to irrigate about 31,124 hectares benefitting 5,462 farmers.



**MADONGAN DAM**

**NATIONAL IRRIGATION SECTOR REHABILITATION AND IMPROVEMENT PROJECT (NIS RIP)**

The “project with a perfect plan,” NIS RIP is a nationwide project funded by Japan International Cooperation Agency (JICA) under Loan No. PH-254 amounting to 6.187 billion yen. It aims to stabilize food supply in the country by increasing rice production from 181,230 tons to 297,266 tons. Area to be covered is 35,670 hectares benefitting 22,563 farmers.



**PARTICIPATORY IRRIGATION DEVELOPMENT PROJECT - PHASE I (PIDP-I)**

PIDP-I is a World Bank-assisted project. The Loan for PIDP-I was approved by the WB Board on June 25, 2009. The Loan Agreement and other legal documents were signed on August 7, 2009 which took effect on November 3, 2009. Area to be covered is 85,193 hectares benefitting 205,664 farmers.



**TARLAC BALOG-BALOG MULTIPURPOSE PROJECT II (BBMP-II)**

Construction of Balog-Balog Dam and Reservoir with a storage capacity of 570 MCM for irrigation, potential power generation, fishery and flood control purposes. Stabilized irrigation supply in 12,475 hectares existing service area of BBMP Phase I.



**SUPER DIVERSION CANAL**

**CASECNAN MULTIPURPOSE IRRIGATION AND POWER PROJECT (CMIPP)**

A financially and economically viable and socially acceptable project covering 20,321 hectares new area which are presently rainfed and 40,000 hectares rehabilitated area in UPRIIS benefitting 36,900 farmer-families. The project is expected to contribute an annual production of 599,066 MT of Palay.



**KITCHARAO SRIP, AGUSAN DEL NORTE**

- Zoned earthfill dam and canal network to increase agricultural productivity & farmers income to generate employment.
- Target New Area 450 hectares
- Cost: 82.935 (GAA)



**PASA SRIP**

The “Adapting to Climate Change Impacts through the Construction of Water Impounding Facilities in the Philippines” (PASA SRIP) is a Foreign Assisted Project aims to reduce the adverse impact of climate change and promote water management in Isabela, considered vulnerable to climate change. This project is funded by the government of South Korea and contributes to the national food security target in the Food Staples Sufficiency Program (FSSP), increase agricultural production through the provision and improvement of irrigation and drainage infrastructures in the project area and increase farmers’ income.

PASA SRIP, located in Ilagan City, Isabela, has a potential irrigable area of 980 hectares that will cover barangays Pasa, Sta. Victoria, Fuyo, Morado and Minabang with 747 farmer beneficiaries.



**UMAYAM RIVER IRRIGATION PROJECT (URIP)**

URIP is located at Loreto and La Paz, Agusan Del Sur. It involves the construction of an overflow diversion dam across Umayam River in Agusan Del Sur, irrigation and drainage canals, and on-farm facilities. It is expected to irrigate 6,729 hectares, which will benefit about 3,385 farm households in 12 Irrigators Associations (IAs). The project will also increase cropping intensity by 200 percent.

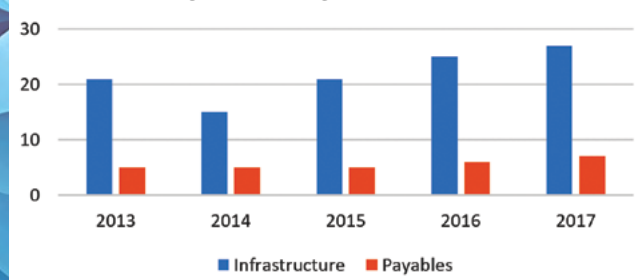


**TANGUB SMALL RESERVOIR IRRIGATION PROJECT (SRIP)**

The Tangub SRIP was located in Tangub City, Misamis Occidental completed on December 2014. It features a 32.50 meter high Earthfill Dam with crest length of 225.0 meters, a reservoir storage capacity of 1.18 million cubic meters that serves an area of 608 hectares with 662 farmer beneficiaries.

Status of Irrigation Development (Based on Inventory - As of December 31, 2016)								
REGION	ESTIMATED TOTAL IRRIGABLE AREA	FIRMED-UP SERVICE AREA					IRRIGATION DEVELOPMENT (%)	REMAINING POTENTIAL AREA TO BE DEVELOPED
		NATIONAL IRRIGATION SYSTEM	COMMUNAL IRRIGATION SYSTEM	PRIVATE IRRIGATION SYSTEM	OTHER GOVERNMENT AGENCY ASSISTED	TOTAL		
CAR	111,295.65	15,896.34	52,987.65	23,597.73	3,745.82	96,227.54	86.46	15,068.11
1	264,491.00	60,243.44	56,833.60	20,852.45	50,589.83	188,519.32	71.28	75,971.68
2	457,246.76	170,078.59	56,853.76	44,764.74	21,307.12	293,004.21	64.08	164,242.55
3	483,830.18	210,198.03	73,896.81	9,343.65	20,754.79	314,193.28	64.94	169,636.90
4-A	85,929.00	28,796.00	22,207.00	7,347.00	2,553.00	60,903.00	70.88	25,026.00
4-B	143,558.95	27,827.00	36,948.64	14,306.88	12,262.00	91,344.52	63.63	52,214.43
5	239,440.00	23,252.19	74,406.00	25,059.00	16,006.30	138,723.49	57.94	100,716.51
SUBTOTAL Luzon	1,785,791.53	536,291.59	374,133.46	145,271.45	127,218.86	1,182,915.35	68.46	602,876.18
6	191,253.17	53,910.08	37,686.13	15,344.81	15,012.30	121,953.32	63.77	69,299.85
7	53,674.35	12,135.00	30,848.00	4,231.00	1,496.00	48,710.00	90.75	4,964.35
8	91,982.90	24,827.00	38,346.90	5,915.75	2,835.00	71,924.65	78.19	20,058.25
SUBTOTAL Visayas	336,910.42	90,872.08	106,881.03	25,491.56	19,343.30	242,587.97	77.57	94,322.45
9	93,706.00	20,516.00	24,500.54	2,037.00	3,586.00	50,639.54	54.04	43,066.46
10	121,122.69	32,164.82	28,646.05	4,970.54	4,784.25	70,565.66	58.26	50,557.03
11	177,546.92	38,558.93	28,278.33	1,291.00	1,675.27	69,803.53	39.32	107,743.39
12	293,226.24	70,019.25	39,081.18	2,840.00	10,256.00	122,196.43	41.67	171,029.81
CARAGA	160,176.75	32,696.70	26,618.00	3,137.00	6,661.00	69,112.70	43.15	91,064.05
ARMM	160,150.45	27,497.94	20,278.05	90.00	295.00	48,160.99	30.07	111,989.46
SUBTOTAL Mindanao	1,005,929.05	221,453.64	167,402.15	14,365.54	27,257.52	430,478.85	44.42	575,450.20
	3,128,631.00	848,617.31	648,416.64	185,128.55	173,819.68	1,855,982.17	61.15	1,272,648.83

**Irrigation Program 2013-2017**



	Infrastructure	Payables
2013	21 M	5 M
2014	15 M	5 M
2015	21 M	5 M
2016	25 M	6 M
2017	27 M	7 M