

NARBO's 9TH IWRM TRAINING
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Building on IWRM Good Practices

The Laguna Lake Basin Experience

Community-Government Partnership for Improved Flood Management in the Laguna Lake Basin

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LLDA

Rationale

Flooding in Metro Manila and the Laguna Lake Region has become recurrent and more devastating in the last decade and has to be effectively addressed.



A 2010 report entitled “**Climate Risks and Adaptation in Asian Coastal Megacities: A Synthesis Report**” prepared by the World Bank, Asian Development Bank (ADB), and Japan International Cooperation Agency (JICA) notes that the costs of flooding can range from PHP 15 billion (*US \$ 337 million - without climate change, for a 1-in-10-year floods*) to PHP 111 billion (*US \$ 2.5 billion - with climate change, for a 1-in-100-year floods*).



Rationale

The same WB report cites that flooding in Metro Manila and the Laguna Lake Region is caused by the limited capacity of most upstream river channels draining into the Laguna Lake to confine floodwaters, the slow-flow capacity of the outlet channel from the Laguna Lake, and the declining capacity of the Laguna Lake to serve as a detention reservoir for floodwaters.



Background of the Project

With the recent calamities and catastrophic typhoon and flood events in the last few years, the DPWH has prepared a **Metro Manila Flood Management Master Plan** that establishes the road map and provides the vision for sustainable and effective Flood Risk Management in Metro Manila and Surrounding Areas, covering selected areas in the Provinces of Rizal, Laguna and Bulacan.

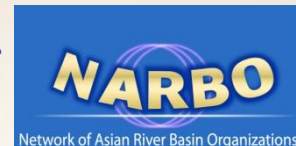
Mabitac National High School, Brgy. Pag-asa, Mabitac, Laguna
12 August 2012



Background of the Project

In September 2012, with the urgency to start with the implementation of the Master Plan, the National Economic Development Authority (NEDA) Board approved the initial allocation of Five Billion Pesos to fund priority flood control projects identified in the said Master Plan.

From this initial allocation, the DPWH has relegated/apportioned an amount of PHP 780 Million to fund priority flood control projects that will positively impact flood management within the Laguna de Bay Region.



Mandates of the DPWH and LLDA

The Department of Public Works and Highways (DPWH)

The DPWH is mandated to undertake the planning, design, construction and maintenance of infrastructure projects such as national roads and bridges, flood control, water resources development system, and other public works in accordance with the national development objectives.

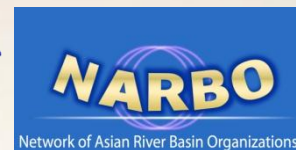
The Laguna Lake Development Authority (LLDA)

The LLDA is the lead agency of the national government tasked to undertake and implement water resources containment and development, flood control system and facilities, among other programs, projects, activities, including those responsive to climate change adaptation and disaster risk reduction within the Laguna de Bay Region, as defined under RA 4850, as amended.

MOA between the DPWH and LLDA

A Memorandum of Agreement (MOA) by and between the DPWH and LLDA was signed sometime December 2012. The objective of the said MOA is to undertake and implement the construction of various high impact flood control system, projects and facilities in accordance with the DPWH Flood Management Master Plan for the Laguna de Bay Region, more particularly in the provinces of Laguna and Rizal, to minimize, if not avert the destructive effects caused by floods.

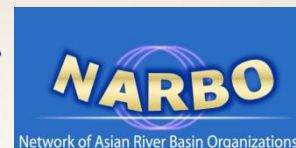
As part of the undertakings of the LLDA under the said MOA, the LLDA shall assume all the duties and responsibilities concomitant to project implementation, procurement/bidding pursuant to RA 9184 and development from project identification, project preparation and fund disbursements/payment to the contractor/s concerned.



Involvement of the LGUs

During the project identification, the LLDA work in close coordination with local executives in:

- identifying critical areas in need of immediate engineering intervention;
- ensuring that the proposed target areas have no existing funding to avoid duplication;
- ensuring that resettlement action plans by the LGUs are in place for those informal settlers that may be affected by the project;
- getting the support of the communities for the smooth implementation of the project;
- getting the necessary assistance in the conduct of surveys and in the data gathering.



Project

In conformance with the Flood Management Master Plan, and in close coordination with the local government units (LGUs), the DPWH and the LLDA proposed for the initial phase of collaborative undertakings, a five-river improvement project for various rivers flowing to Laguna Lake such as Santa Maria, Mabitac, Santa Cruz, Biñan and San Pedro Rivers.



Project Sites

San Pedro River

Project Cost:
PHP 100 Million

Project Scope:
Brgys. San Roque, Landayan
and Cuyab

No. of Beneficiaries: 12,500
individuals



Project Sites

Biñan River

Project Cost:

PHP 100 Million

Project Scope:

Brgys. Malaban and Dela Paz

No. of Beneficiaries: 57,095
individuals



Project Sites

Sta Cruz River

Project Cost:

PHP 180 Million

Project Scope:

Brgys. Santisima Cruz, Sto. Angel Central, Sto. Angel Norte and Poblacion III

No. of beneficiaries:

17,896 individuals



Project Sites

Santa Maria River

Project Cost:

PHP 300 Million

Project Scope:

Brgys. Pook, Koralan,
Poblacion 1, 2, 3 and J. Rizal

No. of Beneficiaries:

8,769 individuals



Project Sites

Mabitac River

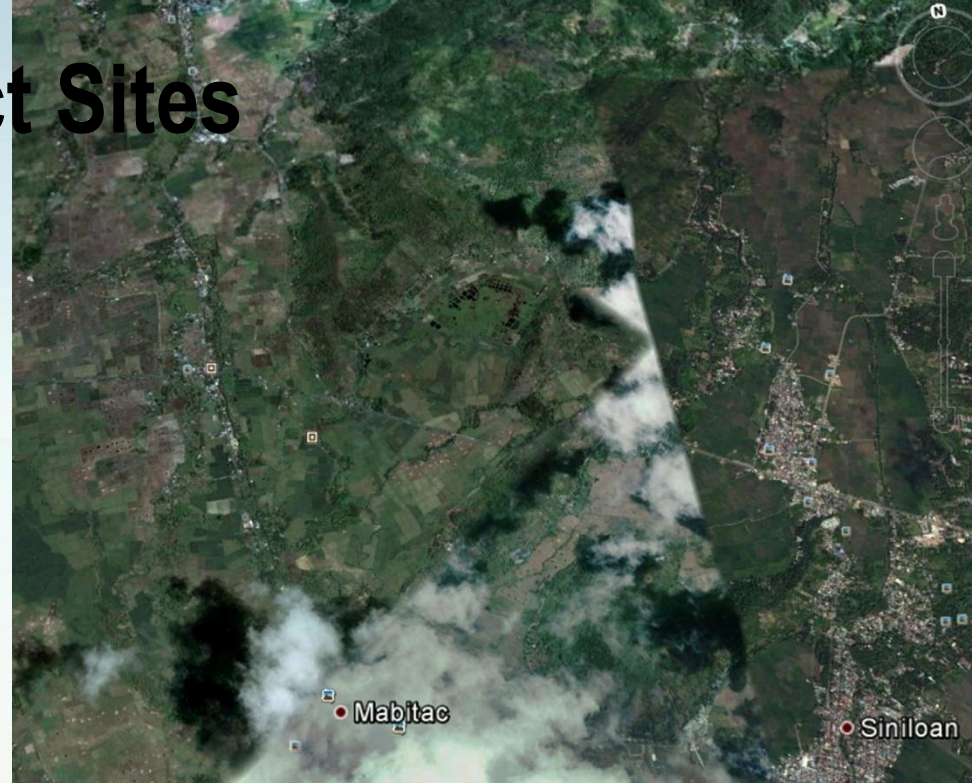
Project Cost:

PHP 100 Million

Project Scope:

Brgys. San Antonio, Nanguma,
Pag-asa and Sinagtala

No. of beneficiaries: 5,596
individuals



Project Status



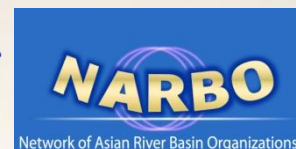
San Pedro River



River level during Typhoon Maring

Lessons learned from the Project

- Flood management is a shared responsibility, and thru the MOA, the DPWH and the LLDA encourages a partnership approach between government entities, with projects focusing on the communities at high risk of flooding;
- It sets the direction for the flood management in Laguna Lake, and also builds on a number of initiatives already in place to strengthen communities against flooding impacts;
- The involvement of the LGUs at an early stage of project preparation ensures the smooth implementation of the undertaking.



**Thank you
very much..**

