

# Environmental Investments in the Philippines for Blue Economy Development



THE EAST ASIAN SEAS CONGRESS 2015

**Global Targets**  
**Local Benefits**

Setting the Sustainable Development Agenda  
for the Seas of East Asia beyond 2015

16-21 November 2015 • Danang, Vietnam

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**Republic of the Philippines**



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## **Workshop 3.3: Blue Economy Development: Where are we now? Where are we headed?**

# **OUTLINE**

- Background  
Philippines, DPWH, Planning Service
- Strategic Policies and Programs
- Budget, FC Master Plan and AH26
- Policies and Programs
- Blue Economy Development  
Projects - SWMP, NSSMP, MBM
- Moving Forward

## Workshop 3.3: Blue Economy Development: Where are we now? Where are we headed?

### REPUBLIC OF THE PHILIPPINES

- Consist of 7,107 islands
- Luzon, Visayas and Mindanao
- 18 Regions, 81 Provinces, 144 Cities, 1,490 Municipalities, 42,029 Barangays
- Capital : Manila City
- Area : 299,764 square kilometers
- Manila City is located in the National Capital Region or Metro Manila





## Workshop 3.3: Blue Economy Development: Where are we now? Where are we headed?





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**VISION:** By 2030, DPWH is an effective and efficient government agency, improving the life of every Filipino through quality infrastructure.

**Right Project. Right Cost. Right Quality. Right on Time. Right People.**

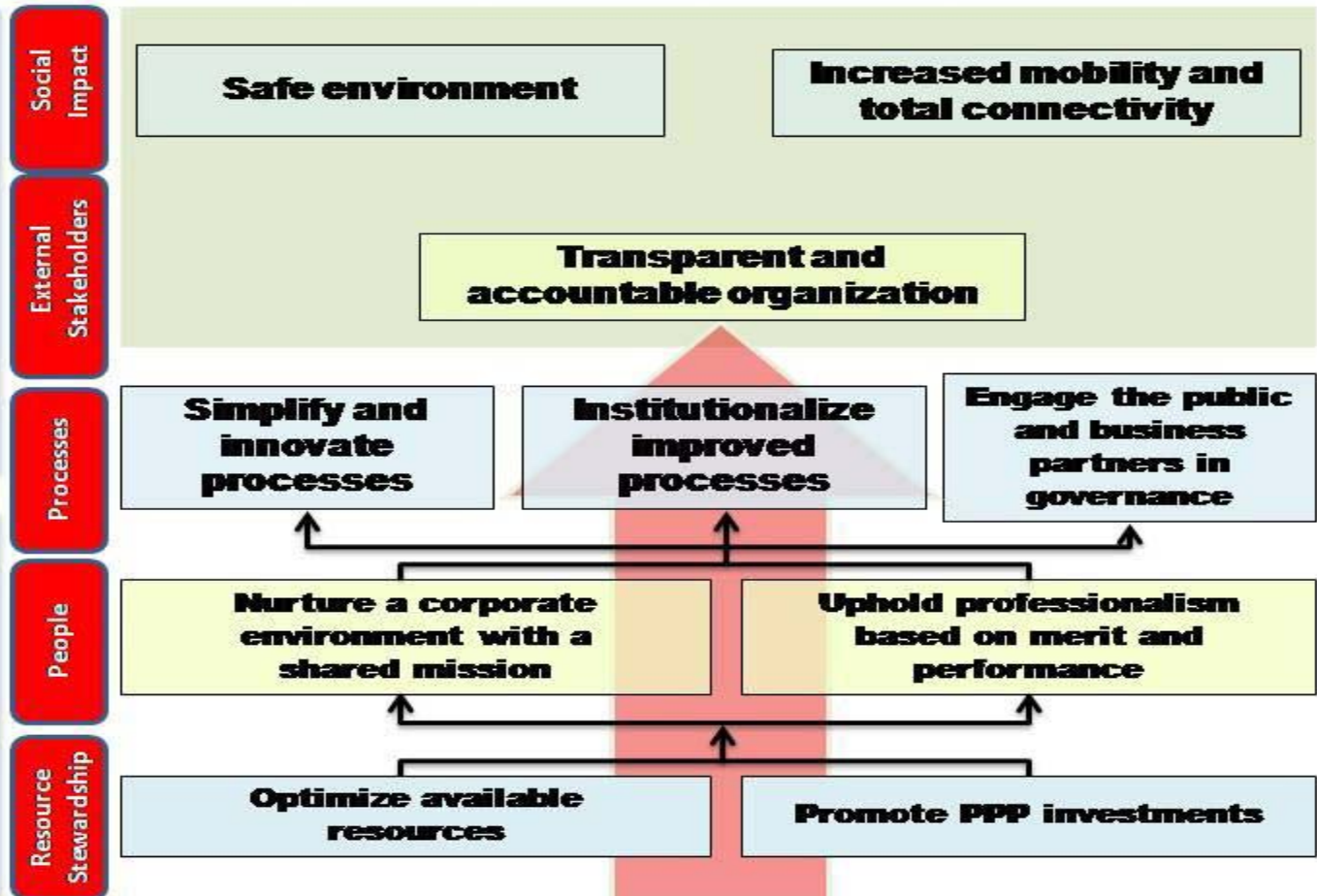
### MISSION

To provide and manage quality infrastructure facilities and services responsive to the needs of the Filipino people in the pursuit of national development objectives.

### CORE VALUES

Public Service  
Integrity  
Excellence  
Professionalism  
Teamwork

*As of March 30, 2012*

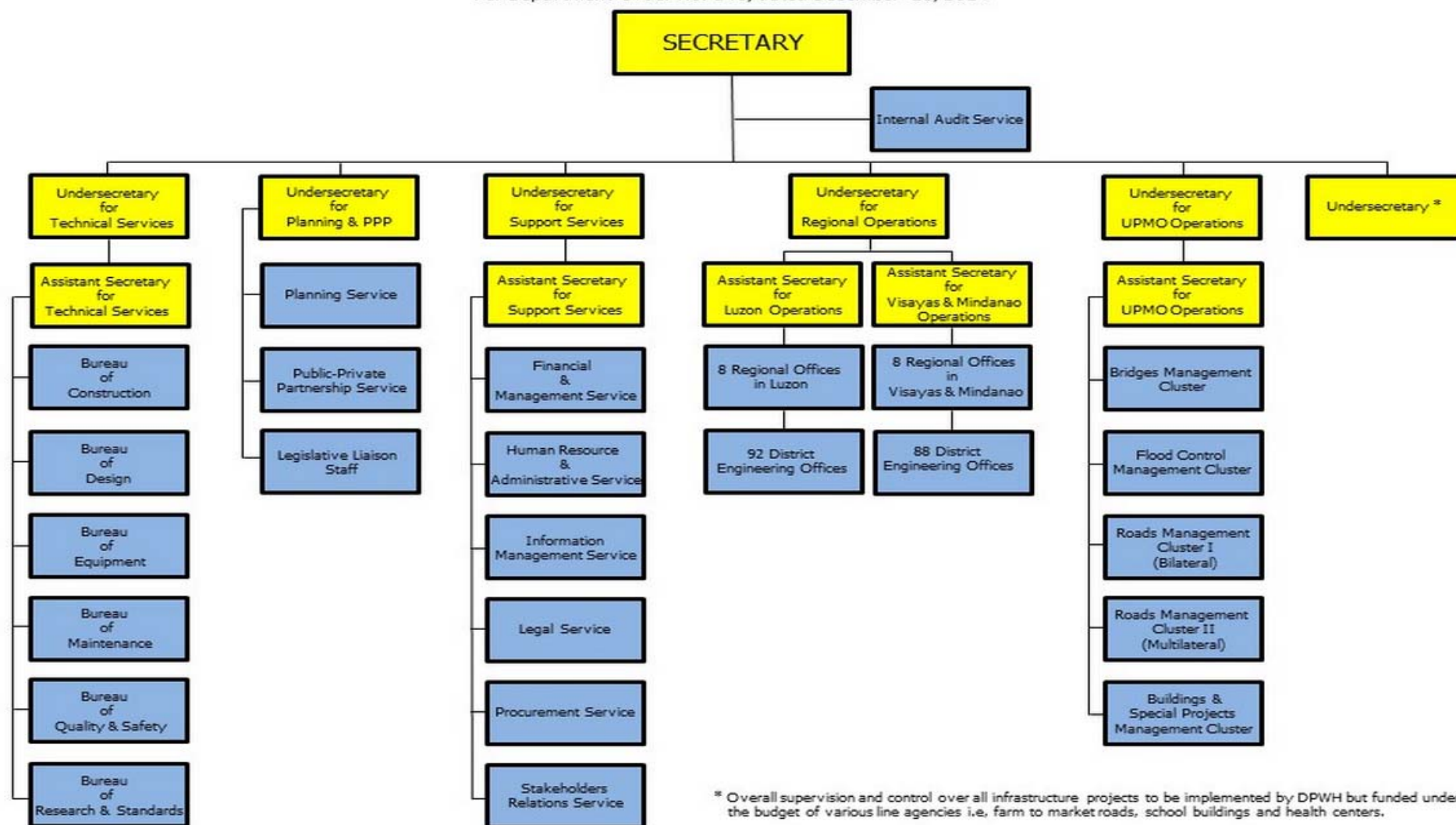


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### Department of Public Works and Highways

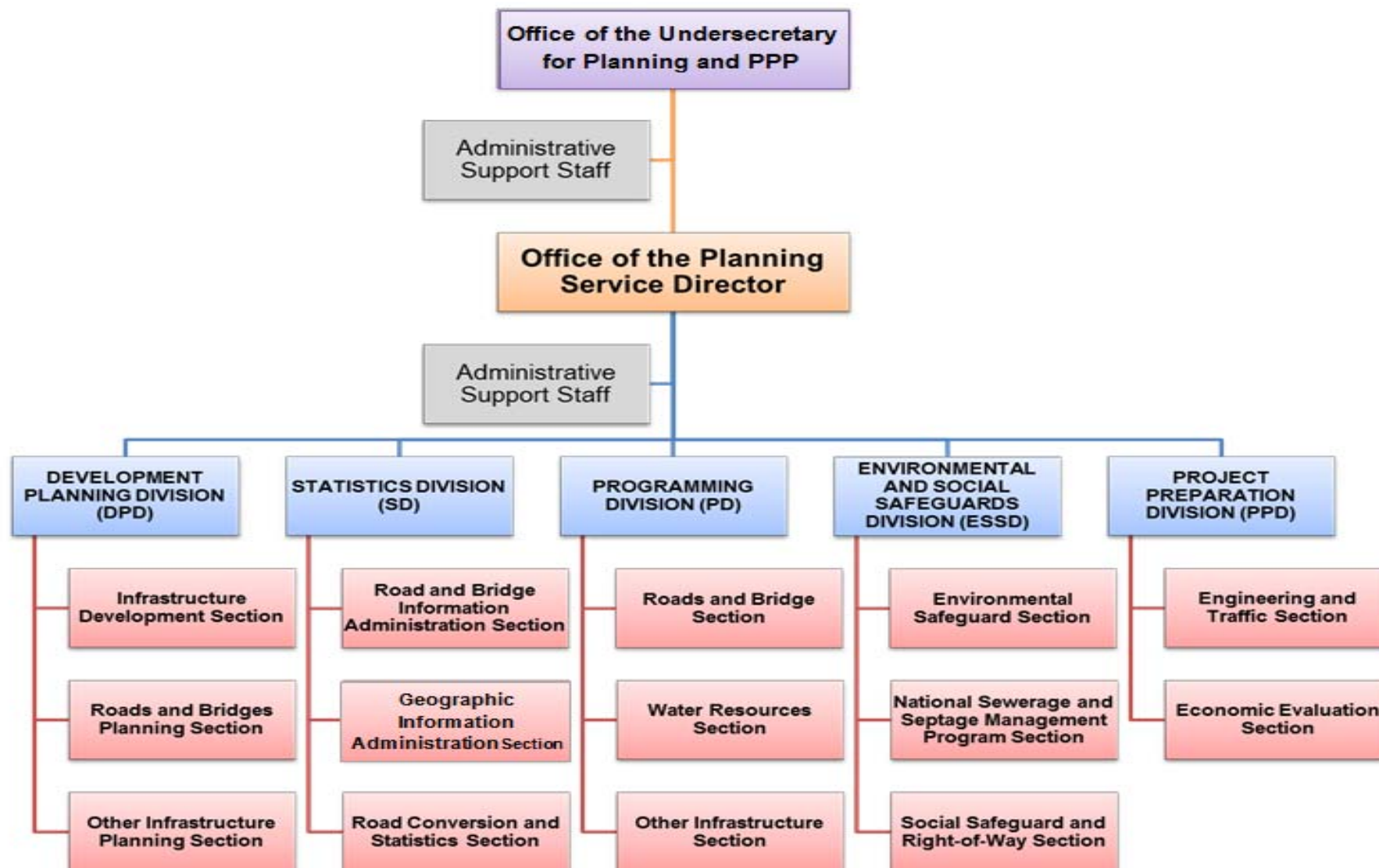
#### Organizational Chart

Per Department Order No. 146, dated December 10, 2014



\* Overall supervision and control over all infrastructure projects to be implemented by DPWH but funded under the budget of various line agencies i.e. farm to market roads, school buildings and health centers.

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### DPWH Strategic Policies and Programs:

#### Good Governance Reform and Anti-Corruption Program

- Reforms in processes promoting right project, right cost, right quality, and right-on-time implementation with the right people;
- Competitive and transparent bidding;
- Professionalize the organization;

#### Better Quality and Safer National Roads and Bridges Program

- Paving of all national roads and upgrading of temporary bridges to permanent structures by 2016;
- Develop new road construction design standards and specifications;
- Improve road safety using International Road Assessment Program (iRAP);
- Increase km. of national roads with acceptable IRI

#### Effective Flood Control Program

- Adopt river basin approach and integrated water resource management principles in preparing flood control master plan for river basins;
- Ongoing implementation of the Flood Management Master Plan for Metro Manila and Surrounding Areas;
- Use bio-engineering solutions for slope protection works in road and flood control projects, such as coconets;
- Increase the minimum flood return periods for the design of flood control and road drainage facilities to 25-50 from 10-20 year return period;



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### DPWH Strategic Policies and Programs:

#### Strategic Convergence Program

- Upgrade access roads to designated Tourism Destinations based on the DOT Tourism Master Plan including provision of water supply;
- Upgrade better access to major airports, seaports and RORO ports;
- Implement the National Sewerage and Septage Management Program with other national/utility agencies pursuant to Clean Water Act (RA9275)

#### Public Private Partnership Program

- Implement the High Standard Highway Master Plan for Metro Manila and 200km radius which identified priority expressways and high standard highways;
- Implement long term road maintenance program for national roads and bridges;
- Implement PPP Bridge Program;

#### Resiliency Program

- Implement Structural Resiliency Program in new construction of public structures & in the reconstruction of calamity damaged public infrastructure facilities
- Strict enforcement of water easement laws and removal of informal settlers and structures on waterways and unsafe zones;
- Use of multi-hazard maps (low, moderate and high-risk zones) and data from science agencies (DOST and DENR) for infrastructure planning and disaster risk reduction measures;

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### DPWH Convergence Programs:



#### **TOURISM CONVERGENCE PROGRAM:**

- Infrastructure support to designated strategic Tourism Destinations.

#### **CONVERGENCE FOR AGRI INFRASTRUCTURE:**

- Undertake Farm to Market Road Network to access food production and processing sites;
- Water impounding projects to optimize water resources for irrigation and flood management;

#### **FLOOD MANAGEMENT PROGRAM:**

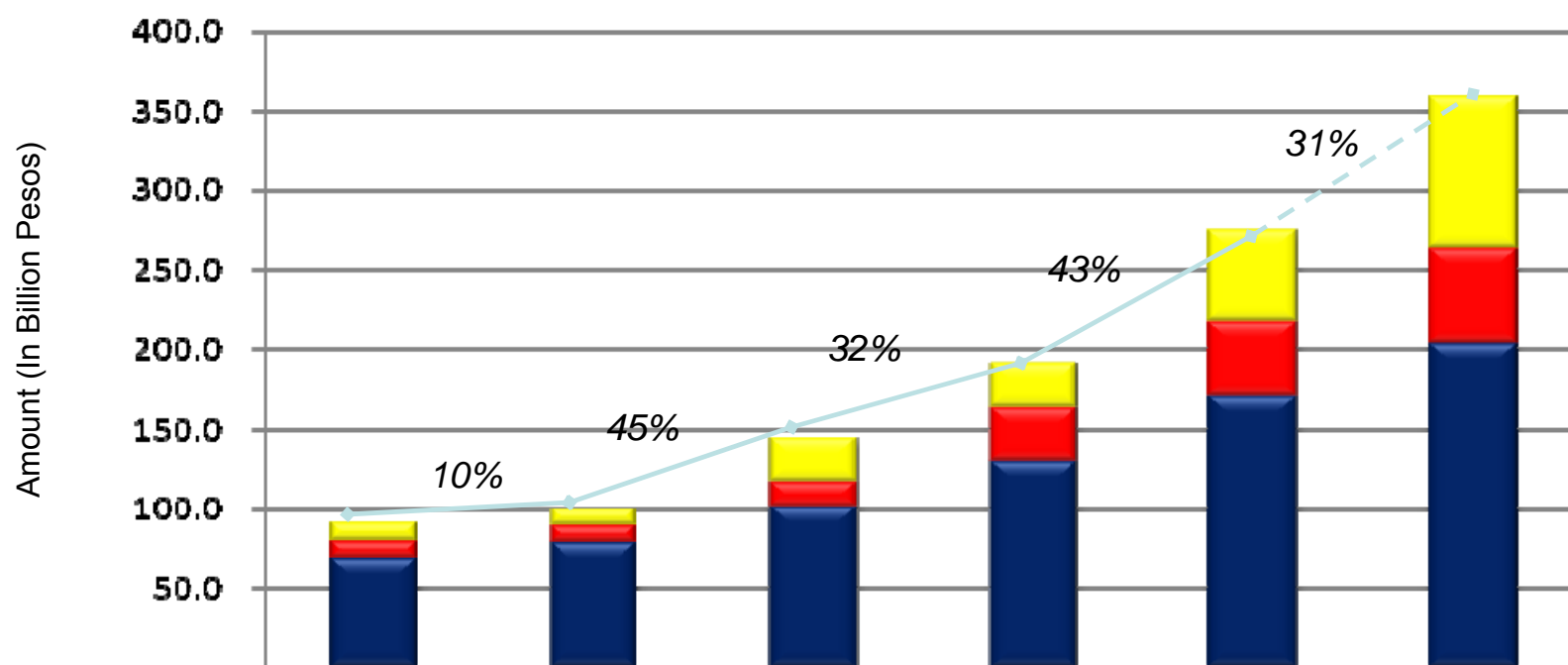
- Implement flood mitigation /intervention projects consistent with the Flood Management Master Plan for Metro Manila and Surrounding areas;
- Integrated Water Resources Management with NIA/DA /DENR/LWUA;
- Clear waterways of Metro Manila and address drainage capacity constraints;.

#### **INTEGRATED TRANSPORT SYSTEM:**

- Support for access to major airports, seaports and RORO ports;
- Mindanao Logistics Infrastructure Network Program;

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### 2011-2016 DPWH Infrastructure Program: Capital Outlays (By Category)

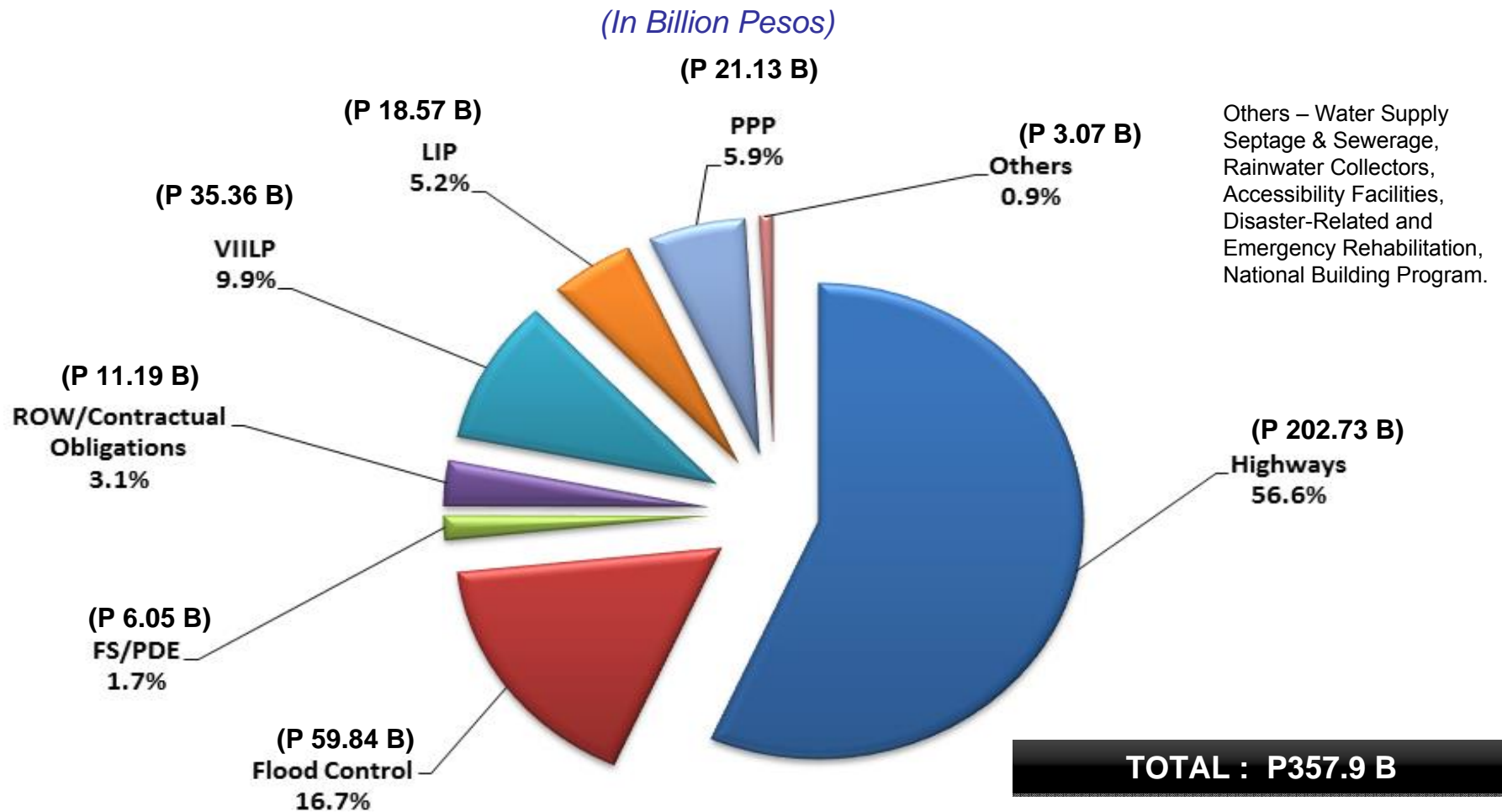




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### Proposed FY 2016 DPWH Budget:

#### FY 2016 Budget (Capital Outlays)



## Philippine ASIAN Highway 26 (AH26) National Highway 1 (N1)

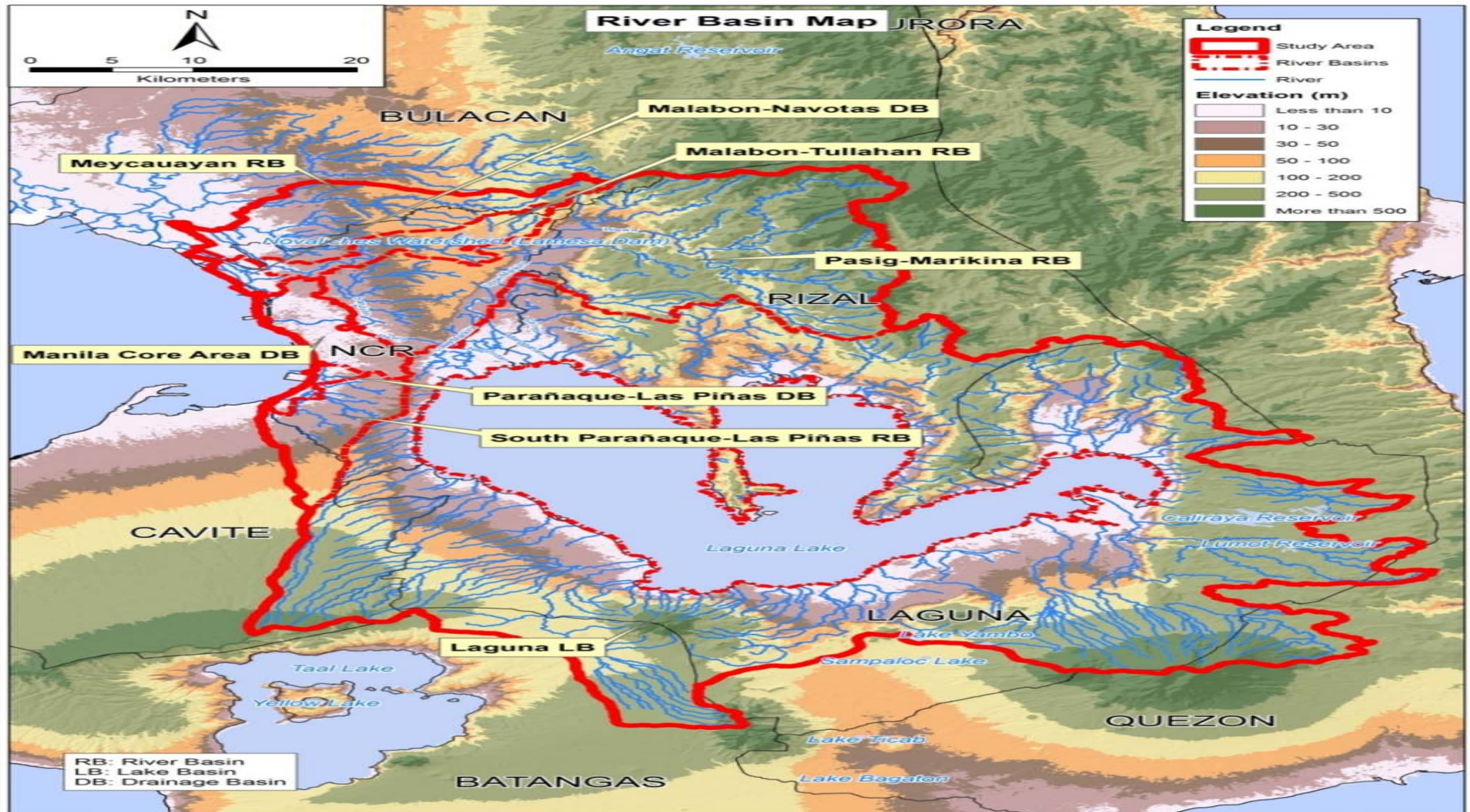


- Comprises segments of Daang Maharlika (main North-South Backbone of the Philippine archipelago) and links the major seaports and cities from Laoag City in the North to Zamboanga City in the South. 3,717 kms. long that includes two ferry stages.



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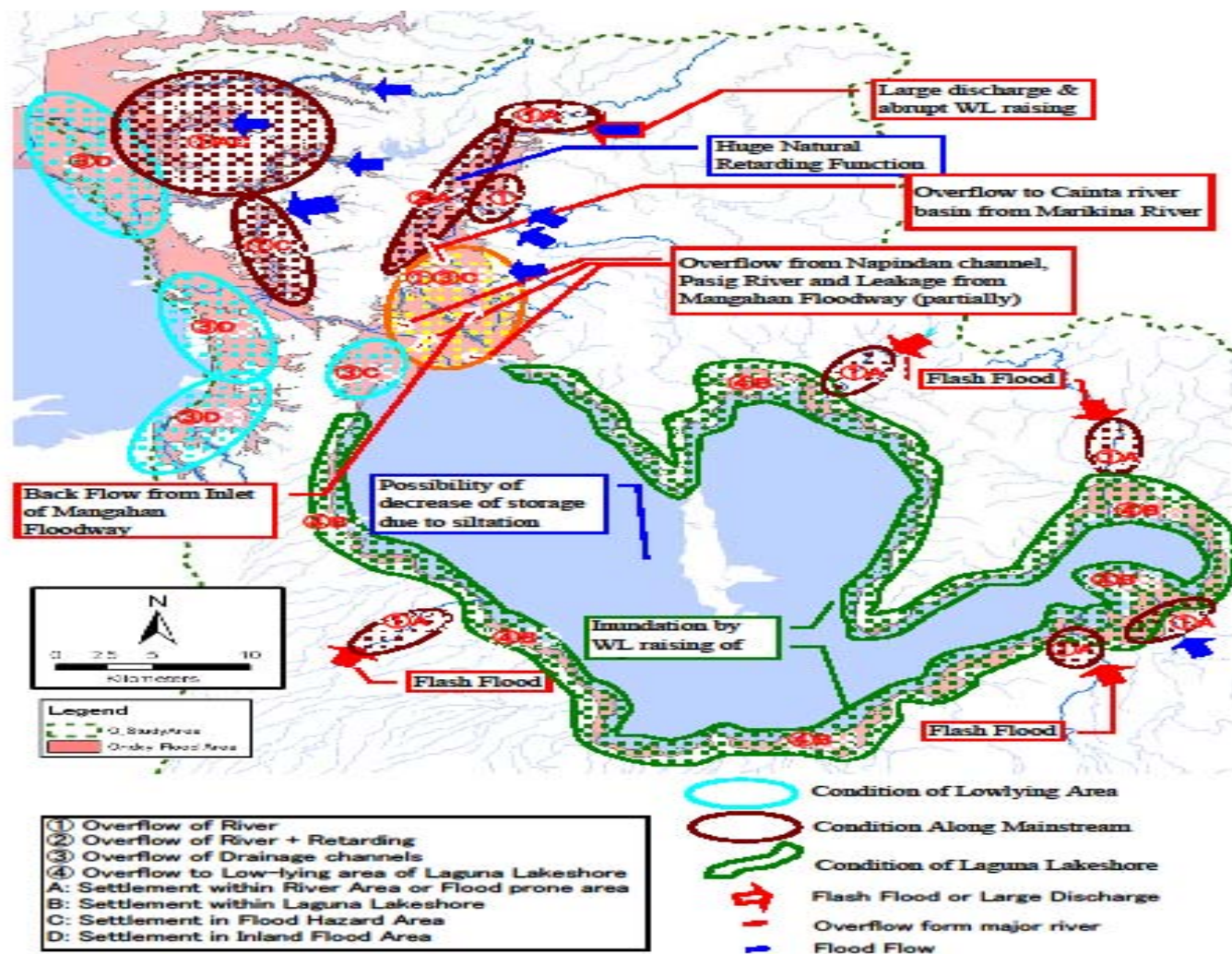
### Master Plan for Flood Management in Metro Manila and Surrounding Areas





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### Master Plan for Flood Management in Metro Manila and Surrounding Areas



Three Major Flooding Occurrence:

- (1) Huge volume of water coming from Sierra Madre
- (2) Drainage capacity constraints in core area of Metro Manila
- (3) Low lying communities around Manila Bay & Laguna Lake

Source: Study Team

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### Master Plan for Flood Management in Metro Manila and Surrounding Areas: KEY PROGRAM COMPONENTS

Name of Project	Est. Cost
Pasig-Marikina River Improvement and Dam Construction	198.435 B
Meycauayan River Improvement	14.040 B
Malabon-Tullahan River Improvement	21.635 B
South Parañaque-Las Piñas River Improvement	17.335 B
East Mangahan Floodway (Cainta & Taytay River Improvement)	25.901 B
West Laguna Lakeshore Land Raising	25.185 B
Land Raising for Small Cities around Laguna Lakeshore	7.158 B
Improvement of the Inflow Rivers to Laguna Lake	0.637 B
Manila Core Area Drainage Improvement	27.257 B
West Mangahan Area Drainage Improvement	5.522 B
Valenzuela-Obando-Meycauayan (VOM) Improvement	8.613 B
<b>Total:</b>	<b>P 351.718 B</b>



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### PROGRAMS

Eco-Friendly Greening Program

Water Management Program

National Sewerage and Septage Management Program

Gender and Development Program

### POLICIES

- Comprehensive and Continuing Urban Development
- Prohibited uses of Right of Way of National Roads
- Land Acquisition, Resettlement , Rehabilitation and Indigenous Peoples Policy
- Solid Wastes Management Policy
- Rain Water Conservation Act



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### Where are we now?

- In light of the worsening water pollution in the country, the Philippine Government has approved policies that aim to improve water quality and protect the country's water bodies.





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## What are these policies?

- RA 9003 also known as the Ecological Solid Waste Management Act of 2000
- RA 9275 also known as the Philippine Clean Water Act 2004 and
- Manila Bay Mandamus which requires all LGUs within the coverage area to participate for its protection.



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# RA 9003 - Ecological Solid Waste Management Act of 2000

- This Act aims for the State to adopt a systematic, comprehensive and ecological solid waste management program.
- This Act established the National Solid Waste Commission, whose purpose is to oversee the implementation of solid waste management plans and prescribe policies to achieve the objectives of this Act.



## **RA 9003 - Ecological Solid Waste Management Act of 2000**

- The Act also requires all Provinces, Cities and Municipalities to prepare a 10-year ecological solid waste management plan.



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### RA 9275 - Philippine Clean Water Act of 2004

- This Act aims to protect, preserve and revive the quality of the Philippines fresh, brackish and marine waters.
- The Act establishes the National Sewerage and Septage Management Program (NSSMP), which aims to provide subsidy for the implementation of sewerage and/or septage projects.





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# RA 9275 - Philippine Clean Water Act of 2004

- DPWH was tasked to lead the preparation and implementation of the NSSMP.



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# DPWH - NATIONAL SEWERAGE AND SEPTAGE MANAGEMENT PROGRAM (NSSMP)





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### Manila Bay Mandamus

- The Supreme Court decision became final in January 2009.
- The Manila Bay Advisory Committee was created to receive and evaluate the quarterly progressive reports on the activities undertaken by the agencies in accordance with said decision and to monitor the execution phase.





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### Manila Bay Mandamus

- The Supreme Court, through the Mandamus, has ordered the demolition of structures within a 3-meter easement from the shore of the Manila Bay and other identified waterways discharging to the bay.
- 13 Government Agencies were identified to carry out the Mandamus and relocate all informal settlers located along the identified waterways discharging to the bay.



## Where are we headed?

### **SOLID WASTE MANAGEMENT**

- By 2020 All Local Government Units (LGUs) has implemented their Ecological Solid Waste Management Plan
- By 2025 All LGUs has established their own Material Recovery Facilities MRF
- By 2030 All LGUs have established their own Sanitary Land Fill or equivalent modern facility

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### Where are we headed?

#### NSSMP

By 2020,

- All LGUs have developed septage management system and the 17 Highly Urbanized Cities (HUCs) have developed sewerage and septage system
- Approximately 43.6 million people have access to septage treatment facilities and about 2.3 million will have access to sewerage treatment facilities



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### Where are we headed?

#### NSSMP

By 2020,

- Php 26.3 billion has been invested in sanitation improvement projects
- About 346 million kg of BOD is diverted from the environment per year as a result of sewerage and septage management projects
- Metro Manila has completed their sewerage and septage treatment facilities by 2037



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Tree Planting Activity at Agdangan National Highschool, Baao, Camarines Sur last June 20, 2015 in connection with the 117<sup>th</sup> Founding Anniversary of the DPWH



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Use of bio-engineering solutions for slope protection works in road and flood control projects, such as coconets





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### Signage for the Trash Bins

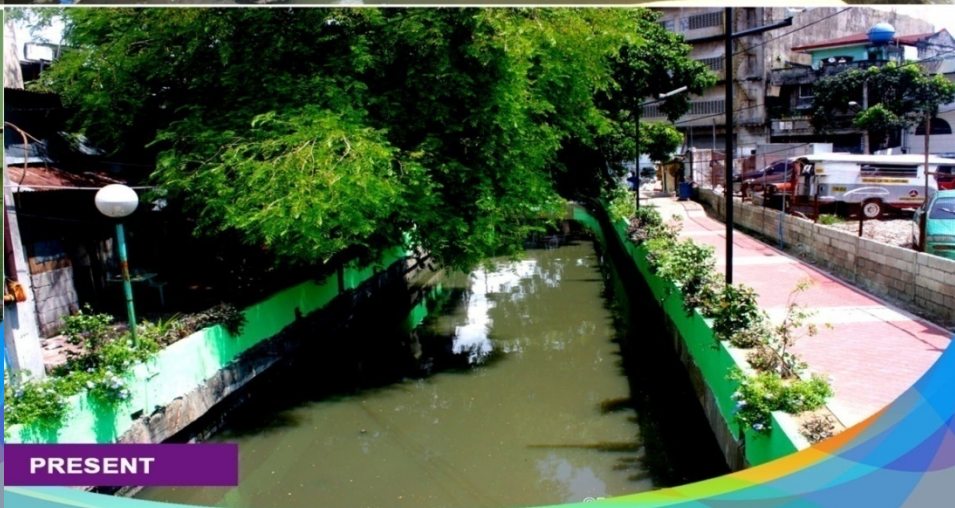
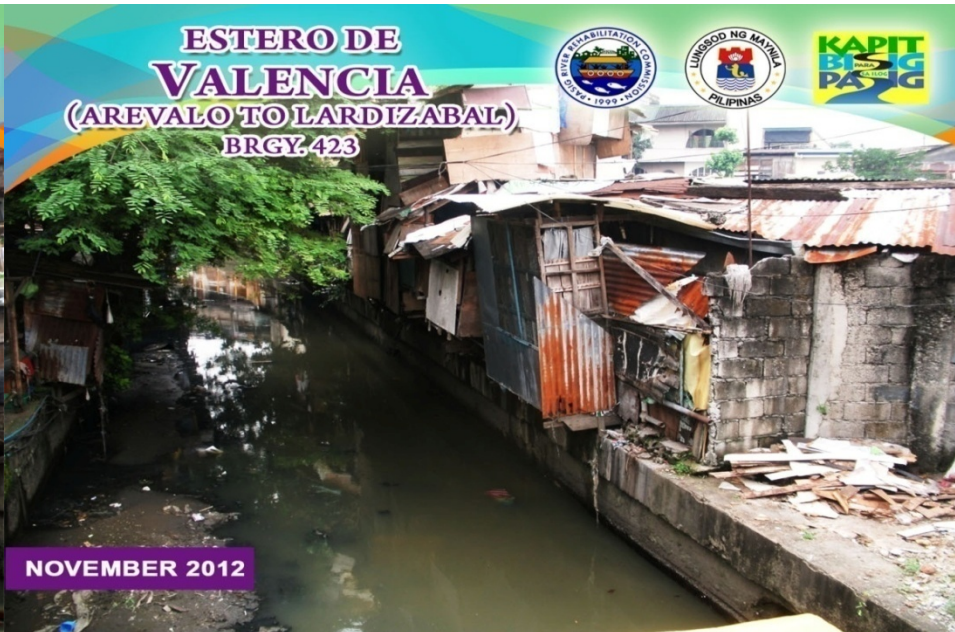


### Trash Bins





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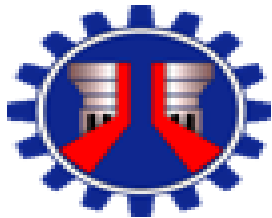
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Republic of the Philippines  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
Camarines Sur First District Engineering Office

### 28<sup>TH</sup> INTERNATIONAL COASTAL CLEAN-UP (ICC)

September 21, 2013

Theme: **“BAYANIHAN PARA SA  
MALINIS  
NA KARAGATAN”**



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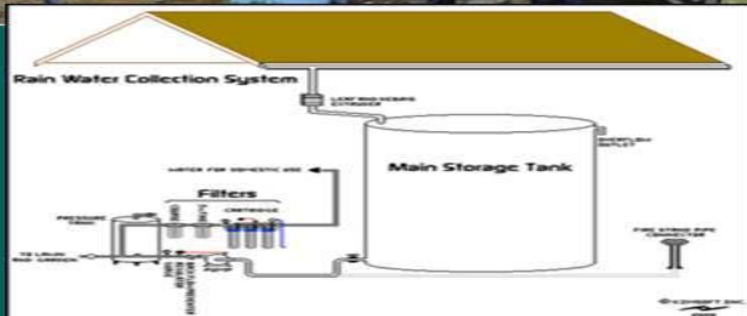
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DPWH promotes the use of **rain water collection system** as part of the agency's water conservation initiative.





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# ECO-FRIENDLY and SUSTAINABLE DPWH ENVIRONMENTAL MANAGEMENT PROGRAMS





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### Moving Forward:

Continuing investments in infrastructure for more jobs and sustained growth.

- *Institutionalize Good Governance and Anti-Corruption Reforms*
  - *Right project , right cost , right quality, right on time and right people*
- *Infrastructure Investment for GOP to grow from 1.8% of GDP in 2011 to 5.0% of GDP in 2016.*
- *DPWH will pursue investments in:*
  1. *Upgrading Quality and Safety of Roads and Bridges with stronger private sector participation*
    - *Long Term Road Maintenance Contracts*
    - *Design and Build Bridge Program*
  2. *Better access to Tourism Destinations, Airports, Seaports, RORO Ports and Food Production Areas*
  3. *Flood Risk Reduction Program and Structural Resilience*
    - *Flood management convergence program with other stakeholders*
  4. *Mindanao Logistics Network Program*
  5. *ARMM Support Infrastructure Program*
  6. *Disaster Risk Reduction and Resiliency Program*



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**Cam On**

**Thank You!**

**Salamat Po**



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