

LAGUNA LAKE DEVELOPMENT AUTHORITY

Presentation for

Network of Asian River Basin Organizations (NARBO)

General Assembly Meeting

Jakarta, Indonesia

on

The Benefits and Challenges

of the

Laguna de Bay Region

and

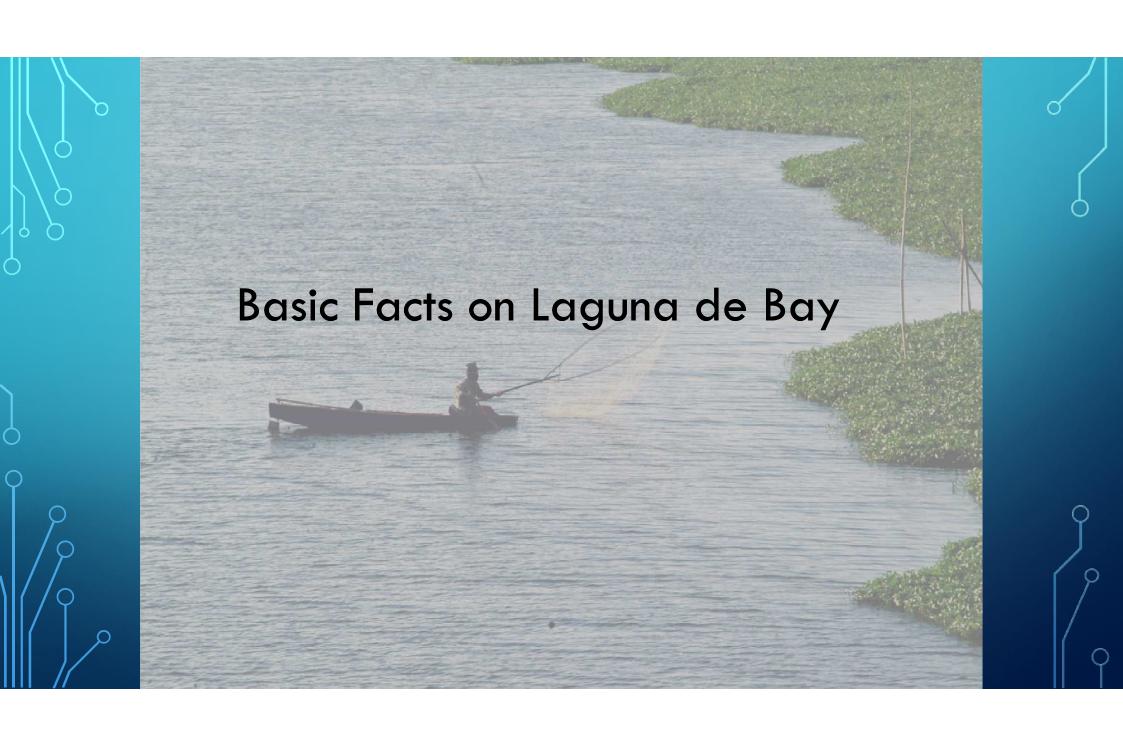
LLDA's Initiatives, Plans, Programs and Projects

PRESENTED BY

CESAR R. QUINTOS

Division Chief III

Laguna Lake Development Authority (LLDA)



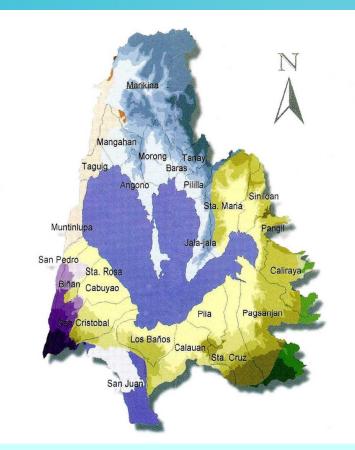


Laguna de Bay . . .

The largest and most vital inland water body in the Philippines.

18th Member of the World's Living Lakes





FACTS & FIGURES

Lake Surface Area : 900 km2

Watershed Area: 2,980 km2 (Hydrological boundary)

Average Depth : 2.5m

Maximum Depth: 20m Diablo (Diablo Pass)

Average Volume: 2,250,000 m³

Shoreline : 284 kms*

Biological Resources: fish, mollusks,

crustaceans, plankton,

macrophytes

(* At 12.5m Lake Elevation)

Laguna de Bay Region Population: 16,248,298 at an Annual Growth Rate of 2.10%

Represents 16.10% of the 2015 National Population

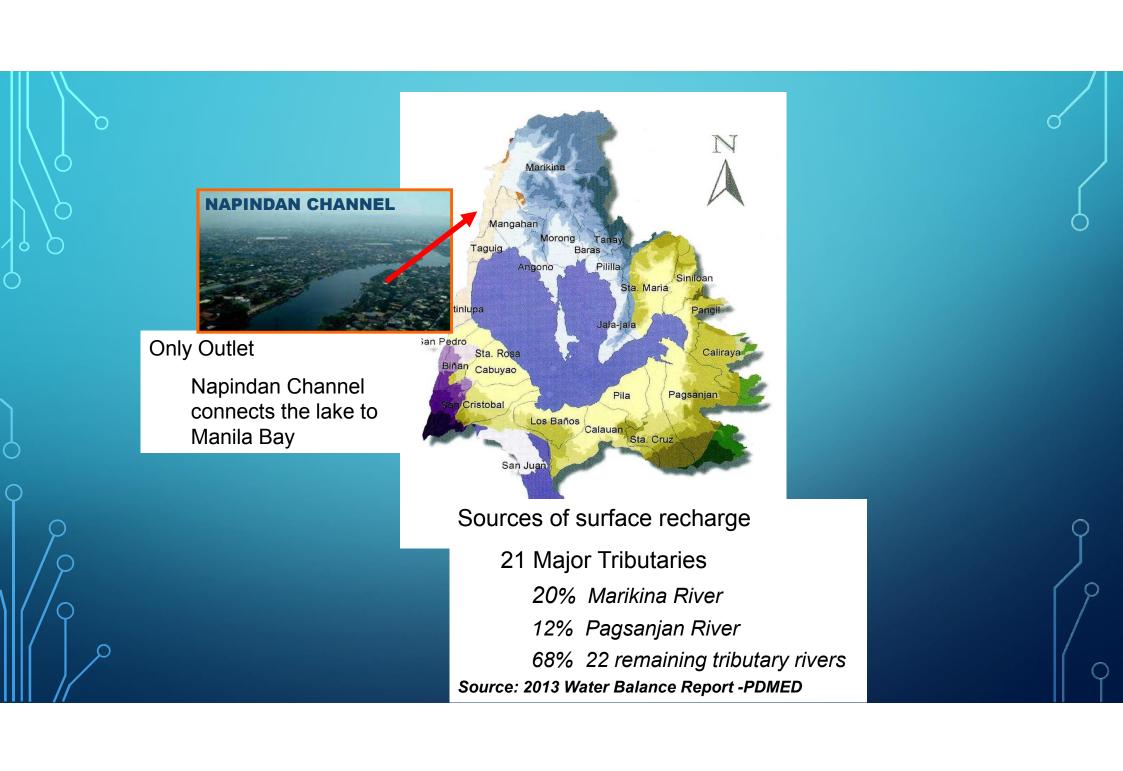
Non-Lakeshore Population: 11,412,464 Lakeshore Population: 4,835,834

Source: NSO Census of Population 2015 Growth Rate computed by PPIMD Lakeshore cities/municipalities = 29 Non-lakeshore cities/municipalities = 32

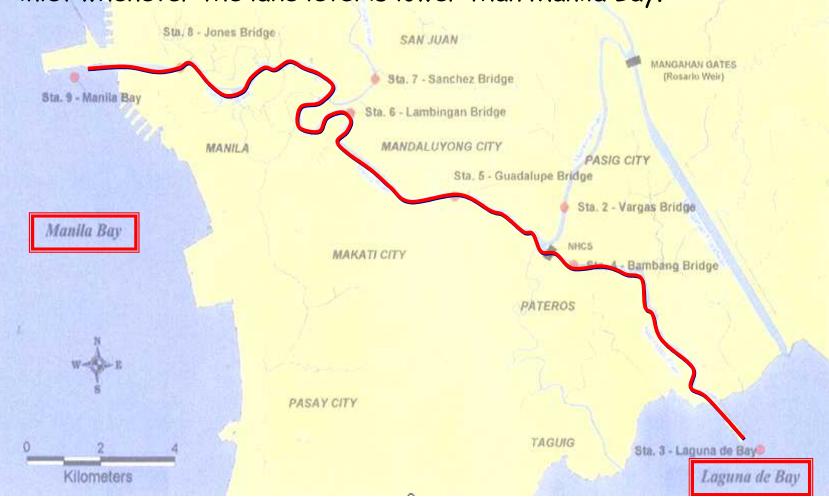
Out 61 LGUs, 17 are cities and 44 are municipalities

Total no. of barangays = 2,648





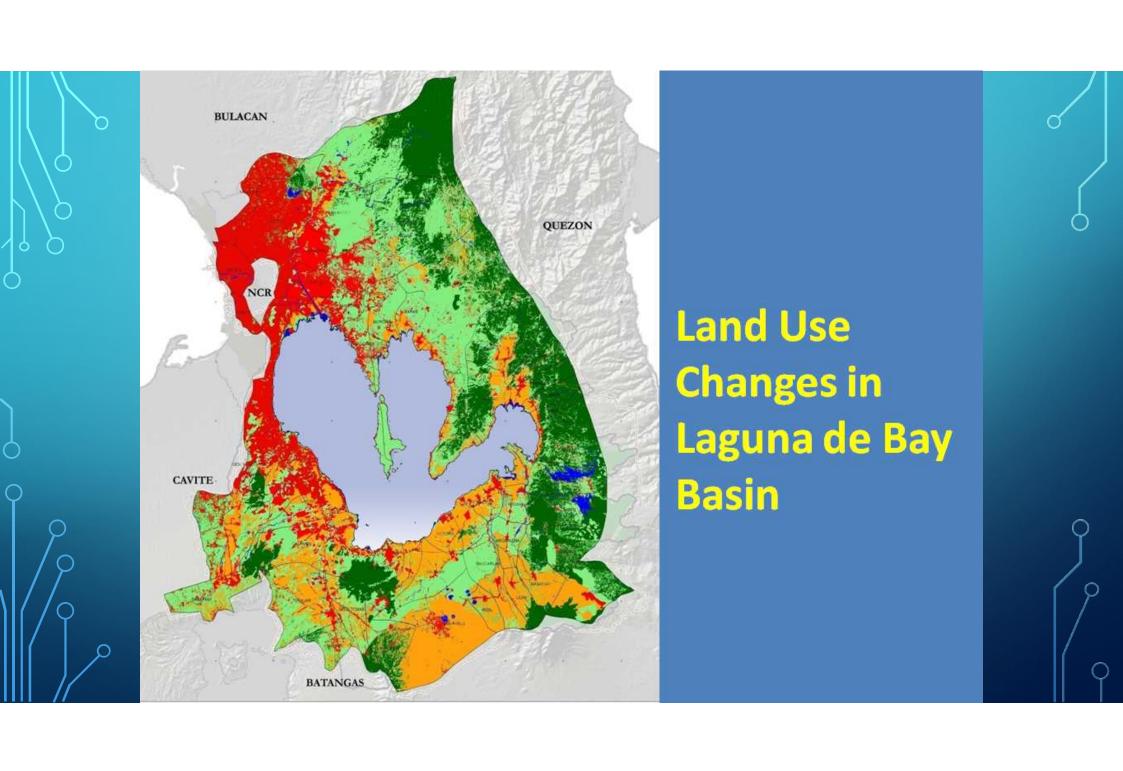
The Pasig River is an important component of the lake ecosystem. It is the only outlet of the lake but serves also as an inlet whenever the lake level is lower than Manila Bay.

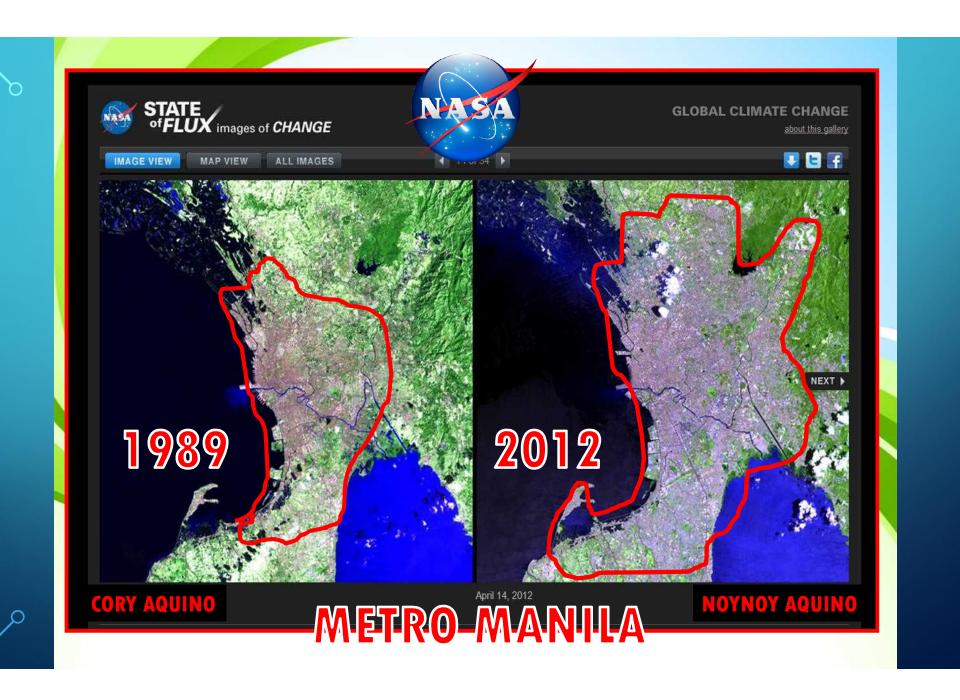


Multiple Use Resource



The Lake's Challenges





Confluence of Problems

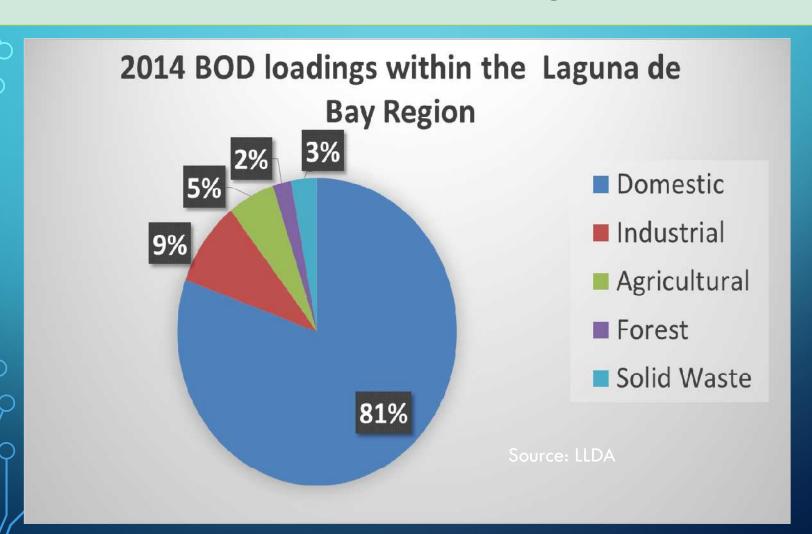




waste contribute to the degradation of the water quality.



Pollution Loadings





The Laguna Lake Development Authority

LLDA MANDATE

RA 4850 (1966). . .to promote and accelerate the development and balanced growth....with due regard for environmental management....

PD 813 (1975)
Expanded the mandate of
LLDA to address
environmental protection
including the power to issue
permit for the use of surface
waters

EO 927 (1983)

- Classified LLDA as Class A Corporation
- Authorized to modify its organization
- Granted water rights over Laguna de Bay and other water bodies within the region
- Granted power to control and abate pollution within the region
- Authorized to collect fees for the use of lake water

RA 10149 known as the GOCC Governance Act of 2011
To promote financial viability, fiscal discipline in GOCCs and to strengthen the role of the State in the governance of GOCCs

EO 349 (1996) Adoption and implementation of Laguna de Bay Master Plan

EO 149 (1993)
Placed under DENR
for administrative
supervision and policy
coordination

VISION

By 2020, the Laguna de Bay Basin has been transformed as the focal center for sustainable development through sound ecological governance.



MISSION

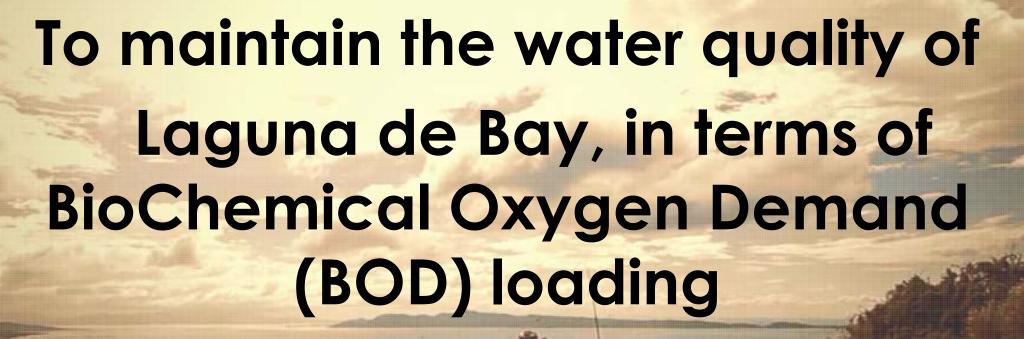
To catalyze a climate change-sensitive Integrated Water Resource Management in the Laguna de Bay Region, with clear focus on preserving ecological integrity and promoting sustainable economic growth.



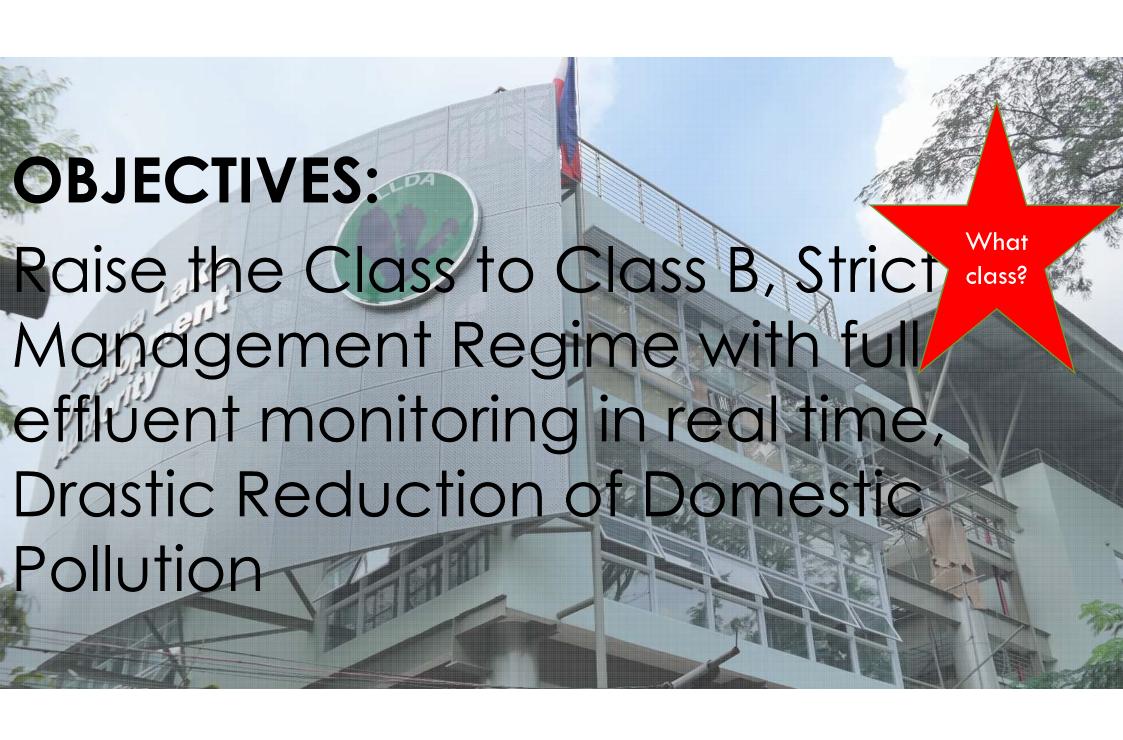


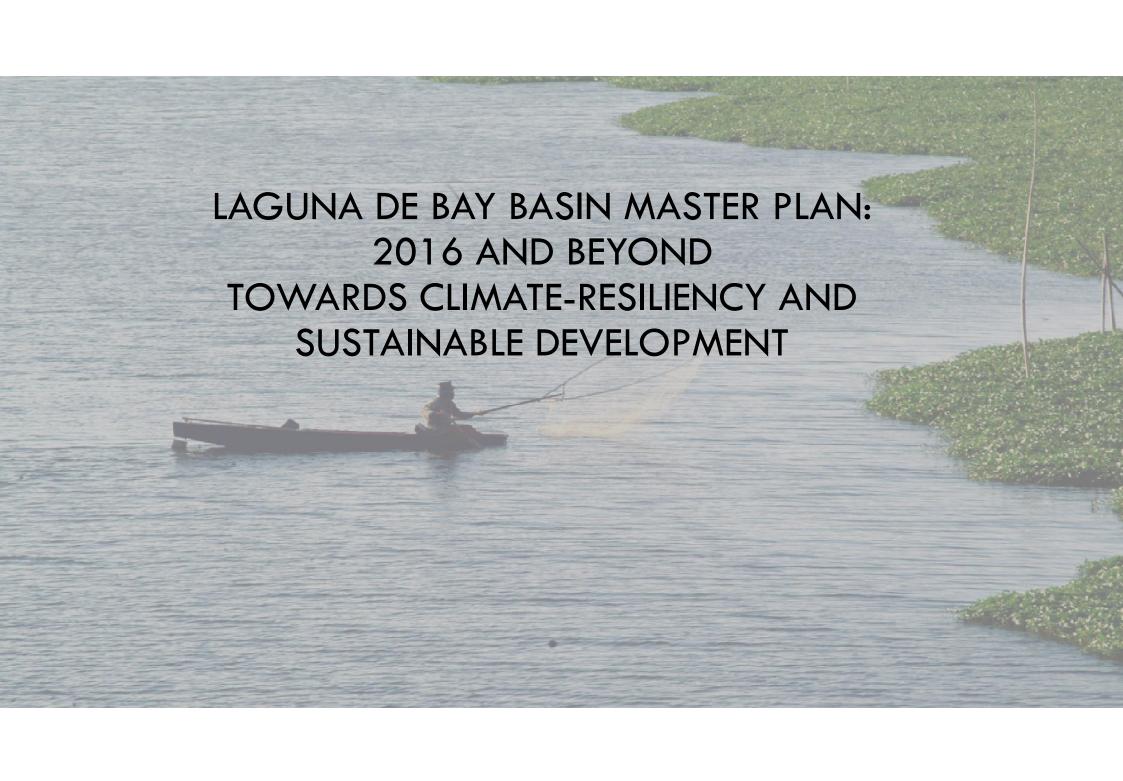






- (3 mg/L without El Nino; 7 mg/L with El Nino).
 - -- inclusion in LLDA 2016 GCG Commitment

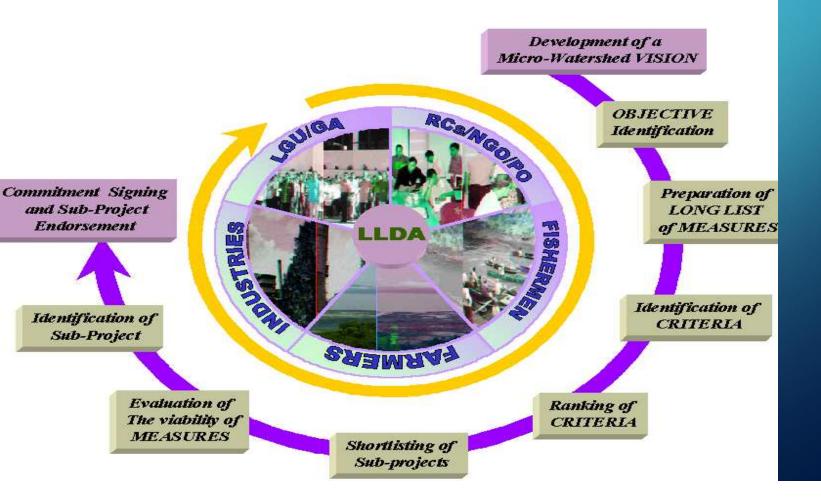






Laguna de Bay Watershed Environmental Action Planning - LEAP

Lake Environment Action Planning (LEAP)



BOARD RESOLUTION NO. 503



Republic of the Philippines LAGUNA LAKE DEVELOPMENT AUTHORITY

National Ecology Center, East Avenue, Diliman, Quezon City Tel. Nos.: 332-2346, 376-4039, 376-4072, 376-4049, 376-4061

RESOLUTION NO. 503 Series of 2016

APPROVING THE LAGUNA DE BAY BASIN MASTER PLAN: 2016 AND BEYOND, TOWARDS CLIMATE RESILIENCE AND SUSTAINABLE DEVELOPMENT

WHEREAS, the Laguna Lake Development Authority is empowered under R.A. 4850, as amended, to promote and accelerate the balanced growth of the Laguna de Bay Region, with due regard and adequate provisions for environmental management and control, prevention of undue ecological disturbance, deterioration and pollution:

WHEREAS, the LLDA Board of Directors has approved on February 25, 2011, the New Master Framework that is strategically important in setting a clear vision and development directions for the Laguna de Bay basin and how this economically and environmentally significant resource will be managed in the medium to long term period from 2016-2026.

WHEREAS, based on the approved Framework, the LLDA has been actively pursuing efforts to prepare the New Laguna de Bay Master Plan such as the engagement of University of the Philippines PLANADES for the crafting of the Spatial Development Master Plan, however, this Plan was not officially adopted by the LLDA:

WHEREAS, the LLDA through its Board of Directors has re-confirmed its commitment to the Government Commission on GOCCs, to deliver the approved Laguna de Bay Basin Master Plan on or before end of December 2015.

WHEREAS, the LLDA created an internal Technical Working Group (TWG) tasked in the formulation of the new Laguna de Bay Basin Master Plan covering the period 2016 to 2026. The TWG shall assesses the present situation of the Authority, its programs and projects implemented under the 1995 Laguna de Bay Master Plan. The TWG shall evaluate the Spatial Development Master Plan and consider its major initiatives and recommendations, subject to new and updated data/information within LLDA and beyond.

WHEREAS, the Master Plan was presented to the LLDA Board of Directors on December 15, 2015, wherein the Body issued an approval thereof.

NOW, THEREFORE, for and in consideration of the above premises, BE IT RESOLVED, as it is hereby RESOLVED, to approve and adopt the "Laguna de Bay Basin Master Plan: 2016 and Beyond, Towards Climate-Resilience and Sustainable Development".

RESOLVED FURTHER, that the General Manager be authorized, as he is hereby authorized, to enter and sign in behalf of the LLDA the Institutional Memorandum of Agreement with various implementing partners for the effective and synchronized implementation of the aforestated Basin Master Plan.

APPROVED on December 15, 2015, in Quezon City, Philippines.

Resolution No.50 Series of 2016 Page 2

HON RAMON J.F. PAJE

Secretary, Department of Environment and
Natural Resources as Chairman

HON. J.R. NEREUS ACOSTA, PhD.
Presidential Adviser for Environmental Protection,
LLDA general Manager as Vice-Chairman

HON. CASIMIRO A. YNARES III, M.D. Representative of Hon. Rebecca A. Ynares, Province of Rizal as Member

HON. TEOFILO S. PILANDO, JR.
Deputy Executive Secretary, Office of the

HON. ZENAIDAC. MAGLAYA
Undersecretary, Depaytment of Trade and
Industry (DTI) as Member

President as Member

HON, CECILIO M. YNARES President, Mayors' League of Rizal as Member HON, RAML L. HERNANDEZ
Province of Laguna as Member

HON MARGARITA R. SONGCO
Deputy Director-General, National Economic
and Development Authority (NEDA) as
Member

HON EMERSON S. CARLOS Chairman, Metropolitan Manila Development Authority (MMDA) as Member

HON. GILBERT G. LOZADA Representative of Hon. Girlie "Maita" J. Ejercito, President, Mayors' League of Laguna as Member

Attested by:

ATTY. OMAR CRIS F. CASIMIRO
Board Secretary



THE ENVIRONMENTAL USERS FEE SYSTEM (EUF) FOR INDUSTRIES

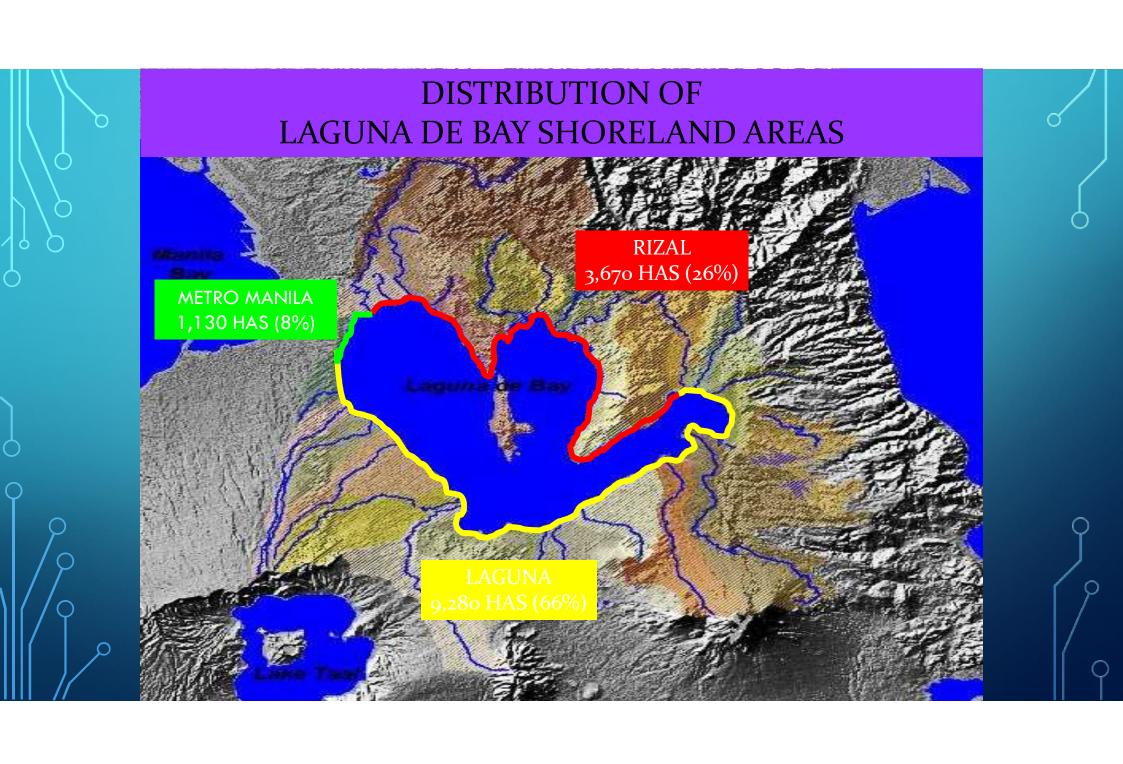
The Clean Water Act has enabled the LLDA to expand the EUFS

FROM (1997):

Biochemical Oxygen Demand (BOD)

TO (Present):

- Total Suspended Solids (TSS)
- Chemical Oxygen Demand(COD)





AUDIT OF EASEMENT VIOLATIONS AND ILLEGAL RECLAMATIONS

- Laguna Lake is defined as that "area covered by the lake water when it is at the average annual maximum lake level of elevation 12.50 meters, as referred to a datum 10.00 meters below mean lower low water (MLLW).
- Lands located at and below such elevation are public lands which form part of the bed of said lake.



AUDIT OF EASEMENT VIOLATIONS AND ILLEGAL RECLAMATIONS

Several projects in the Laguna de Bay Master Plan

- bamboo plantations
- linear parks and promenade
- fisherfolk wharves.
- Sites for a "Costales Farm" model of organic farming and septage treatment facilities are likewise being considered.

NATIONAL GREENING PROGRAM (NGP)

The LLDA has committed to plant

1 million seedlings all over Laguna de Bay region.

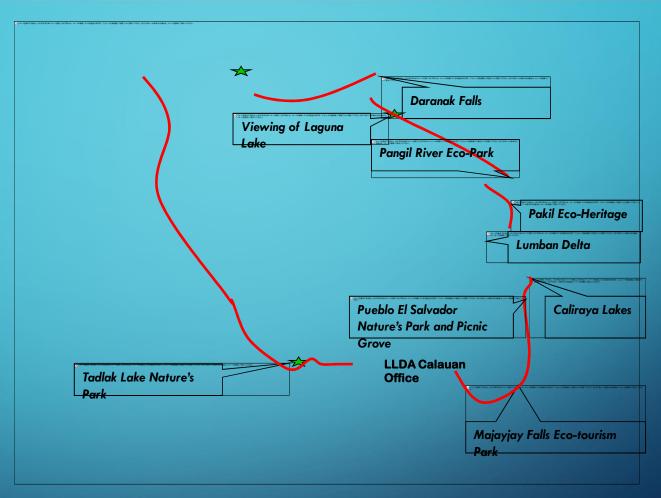
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About 65% of the Metro Manila fish supply is from the Laguna Lake

Since the 1980s, the LLDA has already been establishing partnerships with fisherfolk organizations.

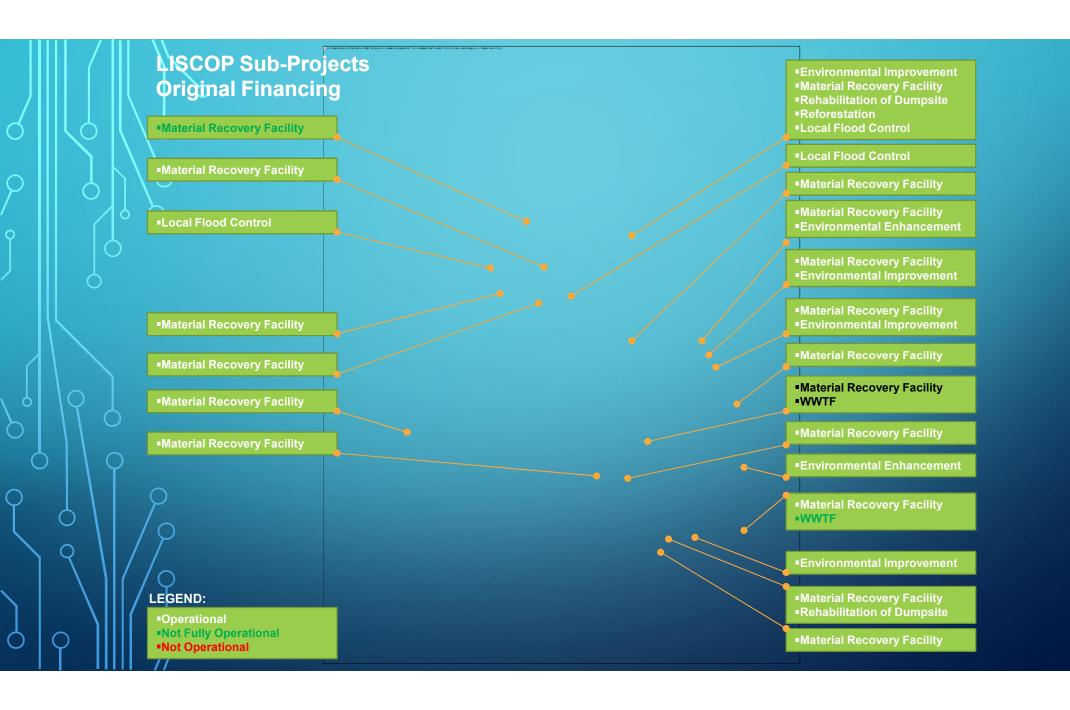


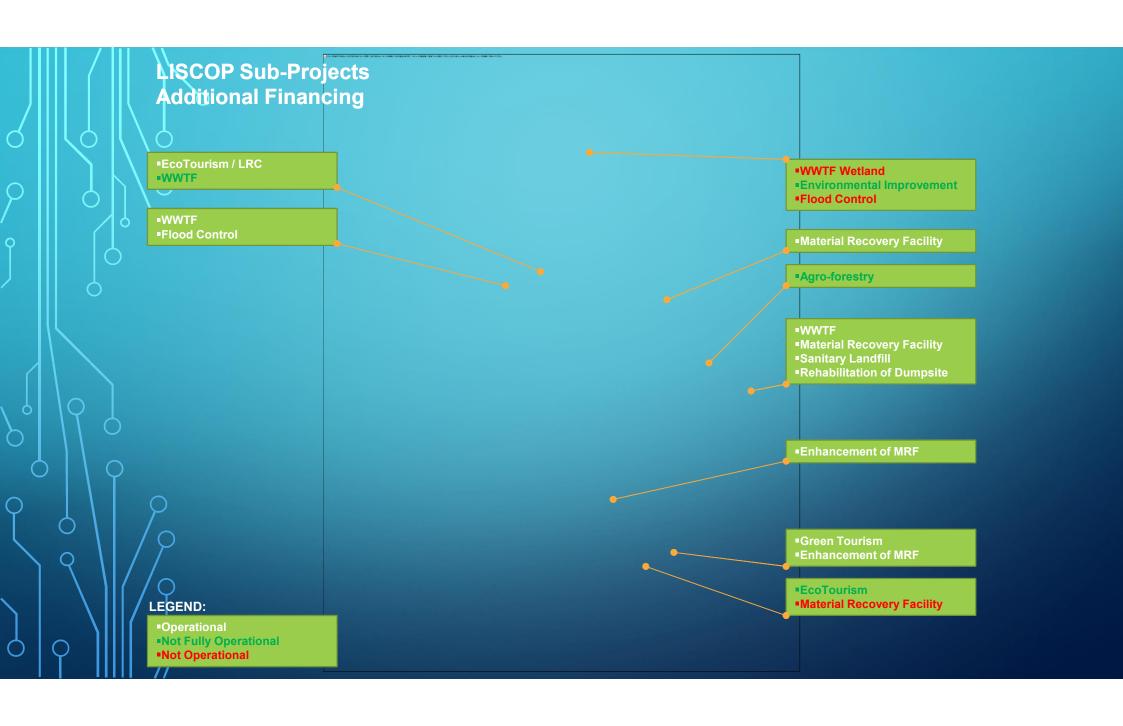
TOURISM LOOP

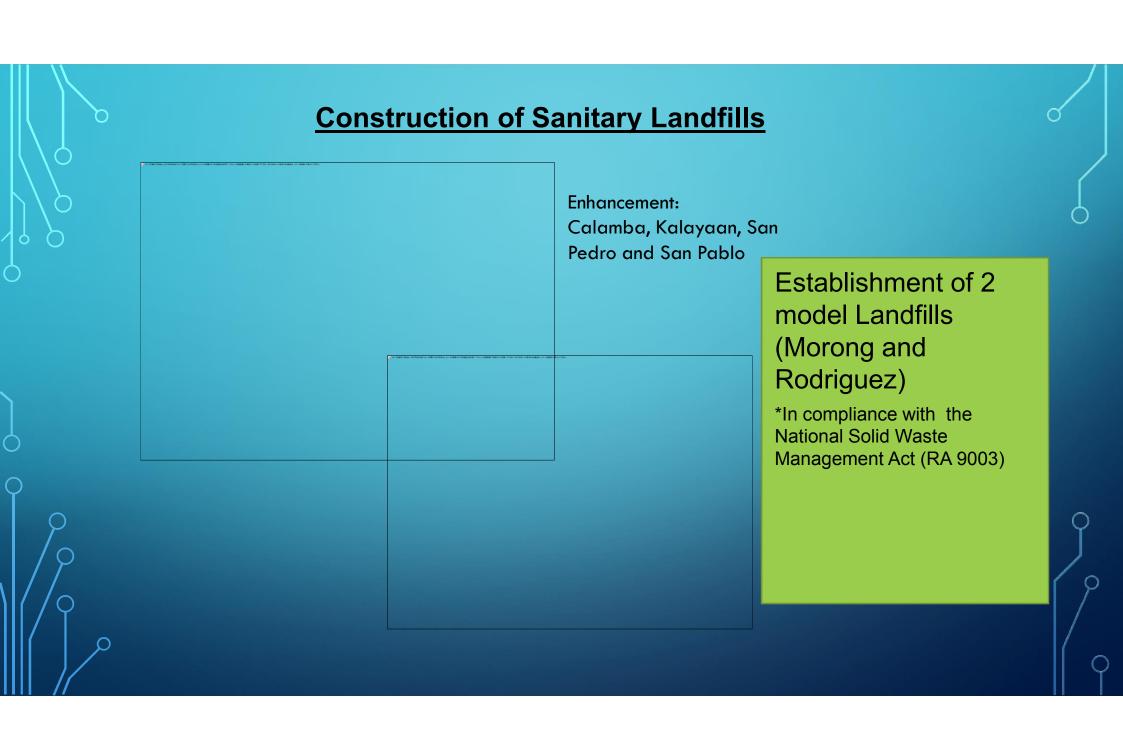


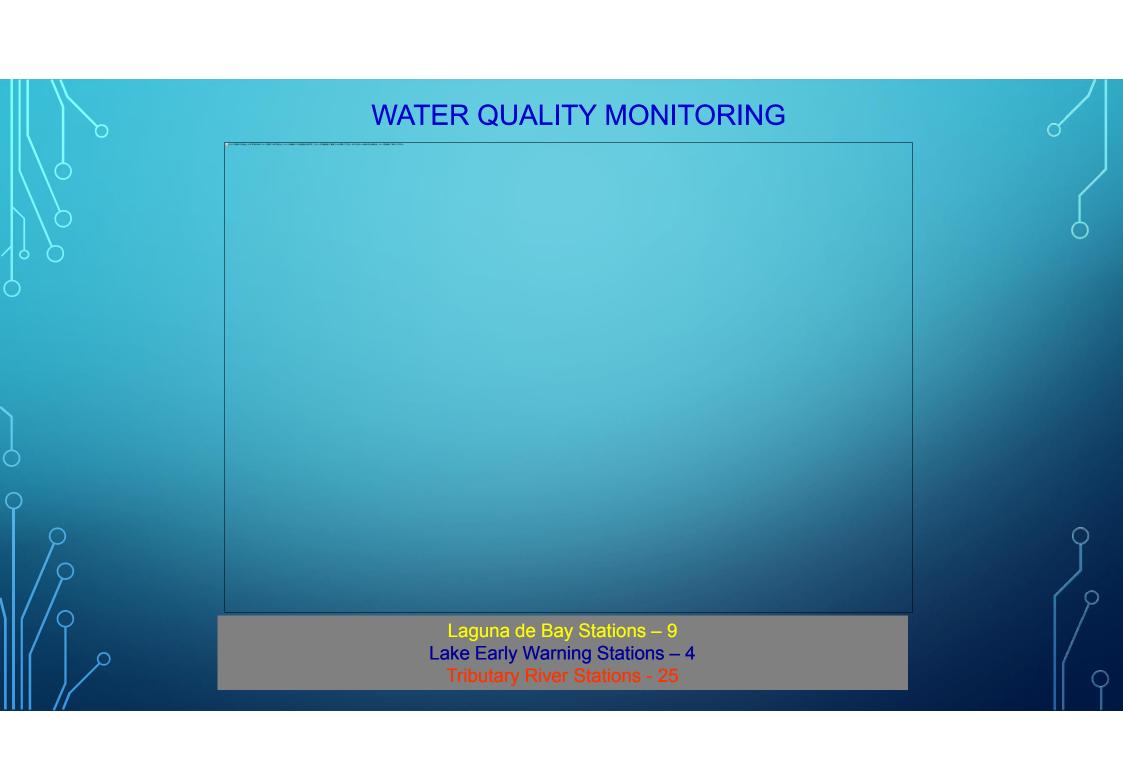
- Ecotourism as "no-alteration-type" of tourism is only one form, sustainable tourism is a preferred approach
- Other forms of tourism are pre-packaged "coach tours"

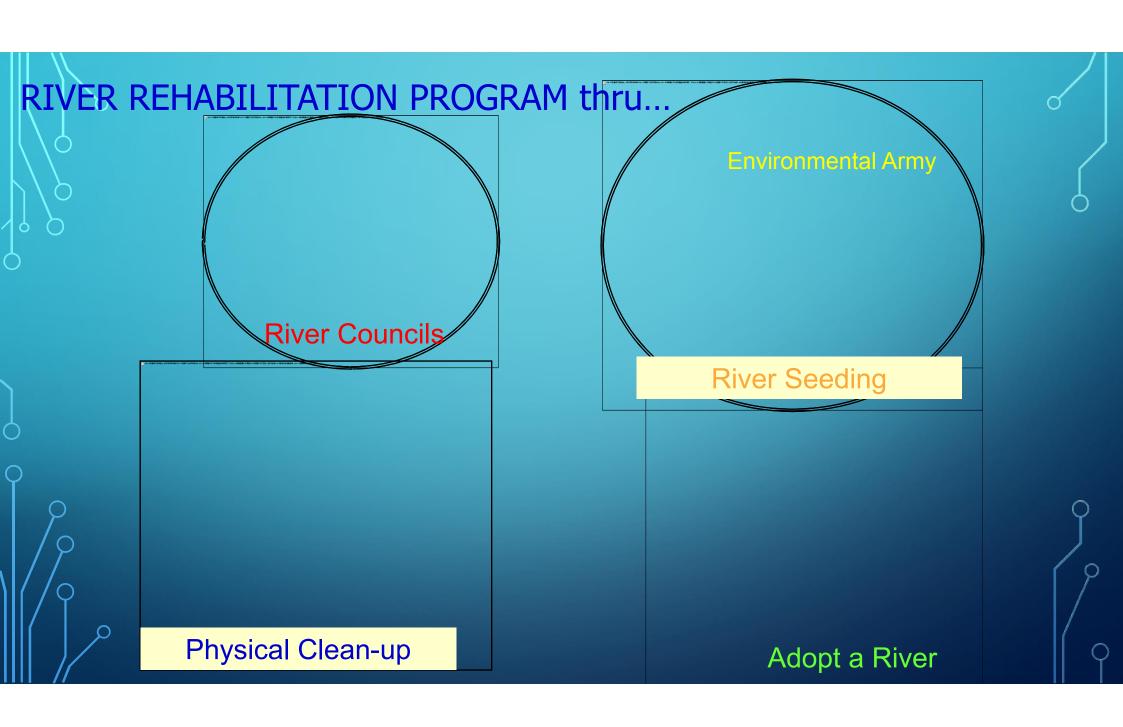
ARTS AND CRAFTS VILLAGE Angono Paete











ENVIRONMENTAL ARMY VOLUNTEERS

 Increasing membership of Environmental Army to 400 volunteers; 39 are women - LLDA's partners in the River Rehabilitation Program

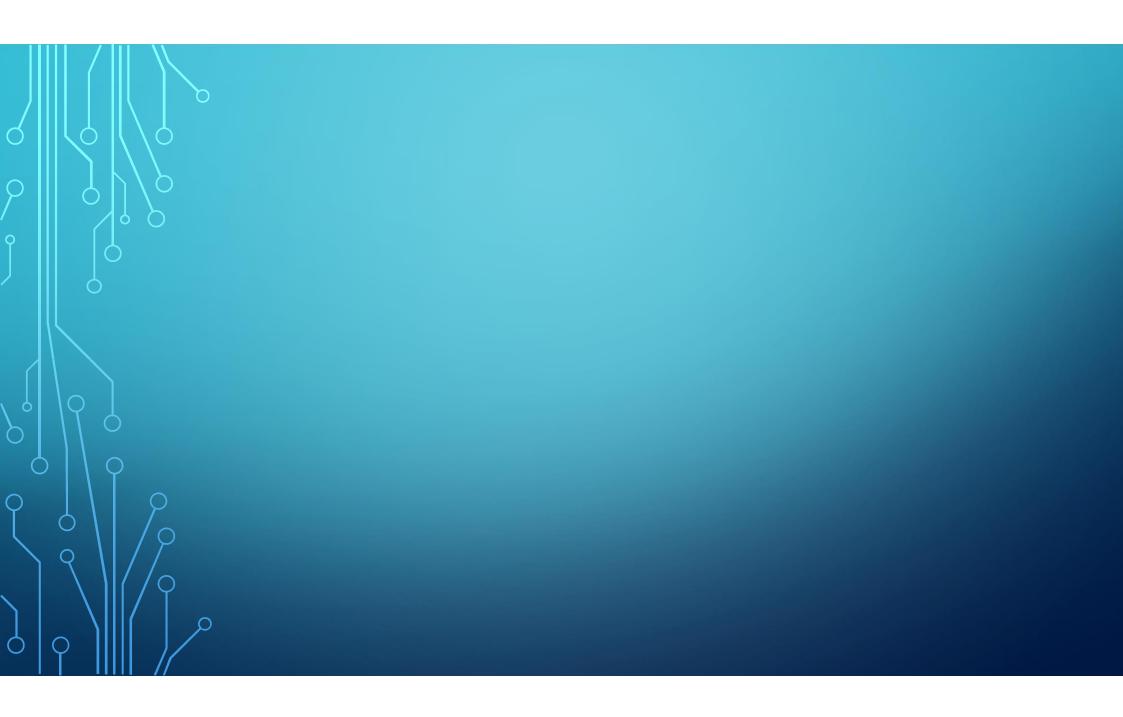


Public Disclosure Program

OBJECTIVES



- Compliance promotion through public disclosure of environmental performance
 - Encourage pollution reduction beyond compliance through public recognition and praise
 - Create incentives for dischargers
- Building capability of establishments on self-regulation
 - Develop internal EMS
 - Promote use of international environmental standards, e.g., ISO 14000 series



SCOPE AND COVERAGE

Emergency Situations and Other Similar Incidences and Occurrences in the Laguna de Bay Region

- Fishkills
- Oil and chemical spills of whatever origin
- Illegal Reclamation or dredging
- Other illegal activities being conducted that will directly harm or affect the environment

CHEMISTRY

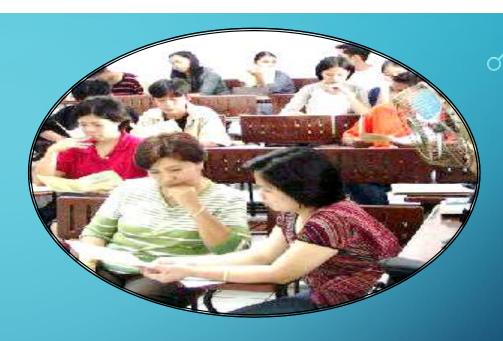
Laboratory of LLDA - Environmental Laboratory and Research Division

LLDA LABORATORY QUALITY ASSURANCE SYSTEM

- LLDA participated in the 2016 Proficiency Testing which was conducted by ERA Company of USA.
- The Proficiency Testing was designed to evaluate the laboratory performance against other 680 participants throughout the world.
- LLDA Laboratory has been recognized as a LABORATORY OF EXCELLENCE for achieving 100% acceptable data for the test samples in July 2016.
- Awarded by DOH with Certificate of Proficiency with certificate and accreditation no. WNTLPT-154A1048, 4A-007 for achieving excellent performance in the proficiency testing scheme for water microbial testing laboratory in January 2016.

PERCEPTION SURVEY

- Perception Survey to determine the stakeholders' appreciation on the LLDA's performance and public image
- In 2016, LLDA garnered an overall performance rating of "Very Good" based on four drivers of satisfaction:
 - 1. Delivery and Quality of Services;
 - 2. Staff Attitude and Professionalism;
 - 3. Transparency to Stakeholders and Office Operations; and
 - 4. Environment Guidelines





keep moving."

Albert Einstein

