



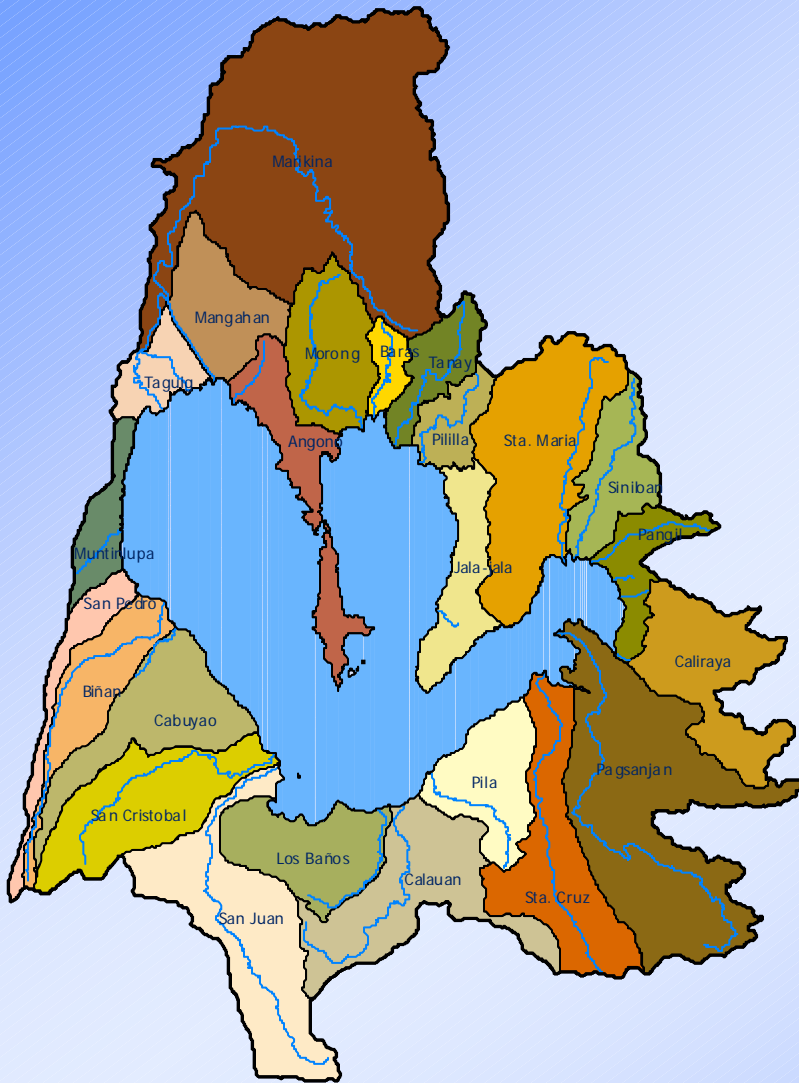
**Laguna Lake Development Authority
Department of Environment and Natural Resources**

**Presentation to
*Network of Asian River Basin Organizations (NARBO) Training
on Integrated Water Resource Management (IWRM)***

***Bangkok & Chiang Mai, Thailand
July 26-August 6, 2004***

**By:
LEONOR A. POSERIO
Fiscal Examiner II
Laguna Lake Development Authority
Philippines**

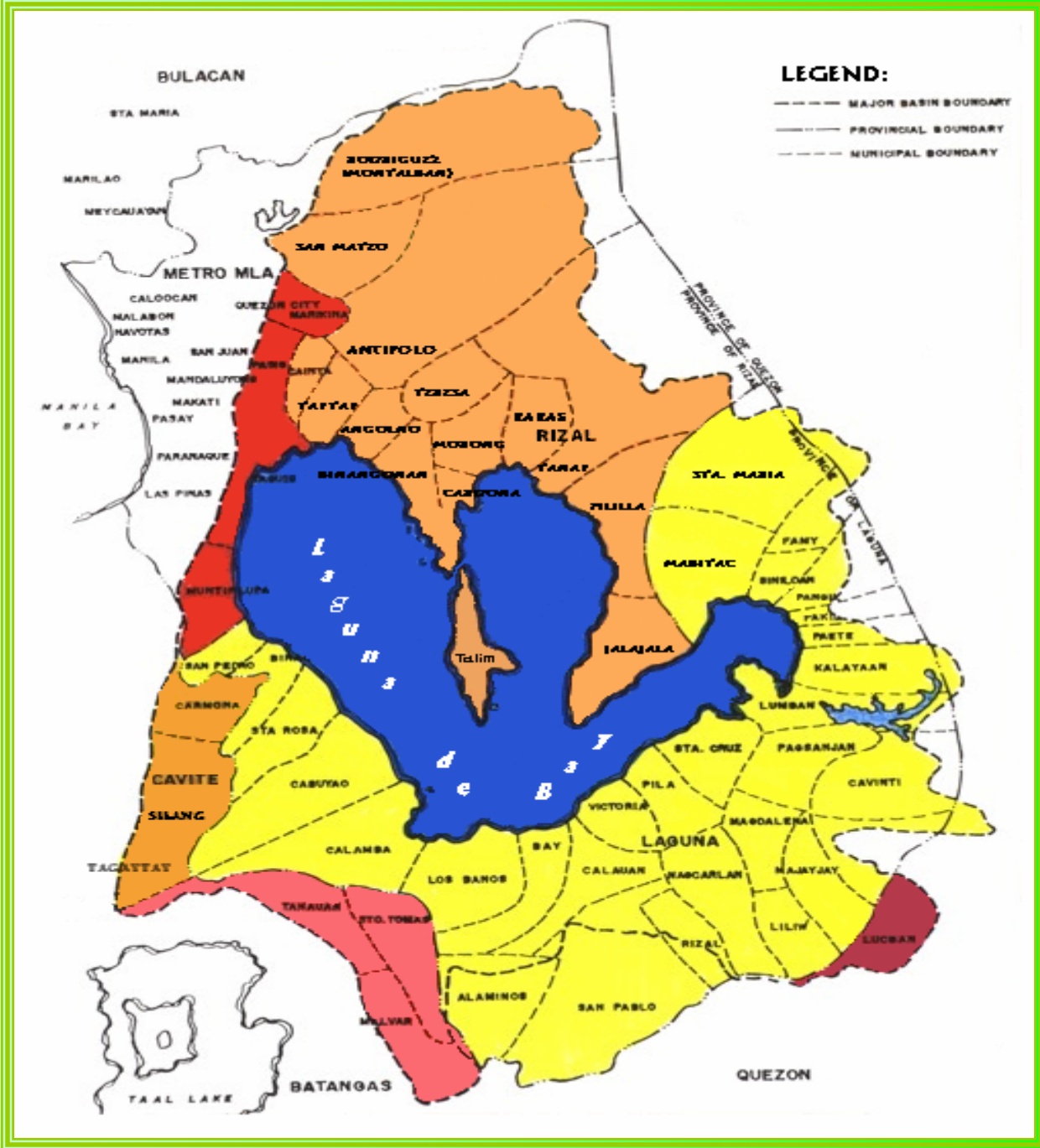
Laguna de Bay Features



- **Average Depth:** ~2.5 m.
- **Average Volume:** 2.25 MCM
- **Shoreline:** 285 km.
- **Lake surface area:** 900 km²
- **Watershed area:** ~2920 km²
- **(24 sub-basins including many tributaries + a floodway)**
- **6 provinces, 12 cities, 49 municipalities**
- **Of which 27 are lakeshore towns and 2 are lakeshore cities**
- **One outlet: Napindan Channel – Pasig River**
(serves as inlet of saline water during Pasig River backflow)

The Largest Lake in the Philippines and one of the largest in Southeast Asia

Geographical Mandate





The Laguna Lake Development Authority

Evolution of LLDA

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



EO 349 (1996)

Adoption and implementation of Laguna de Bay Master Plan

EO 149 (1993)

Placed under DENR for administrative supervision and policy coordination

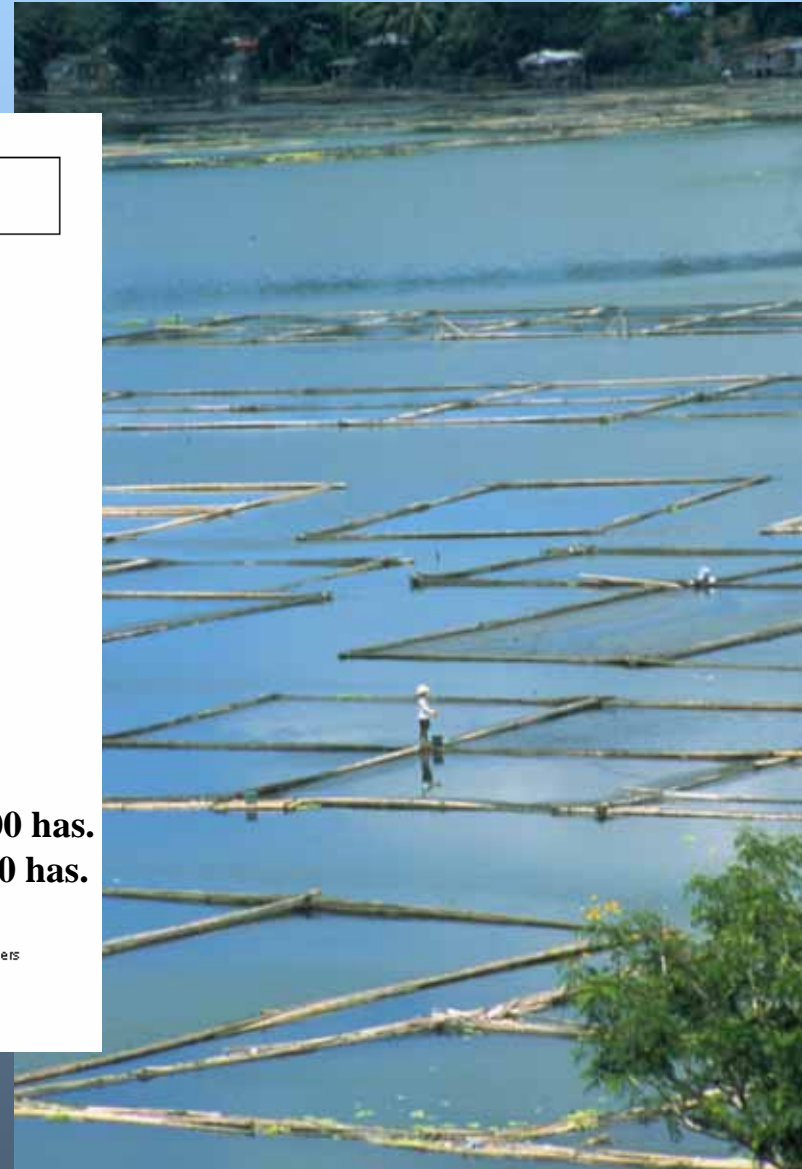
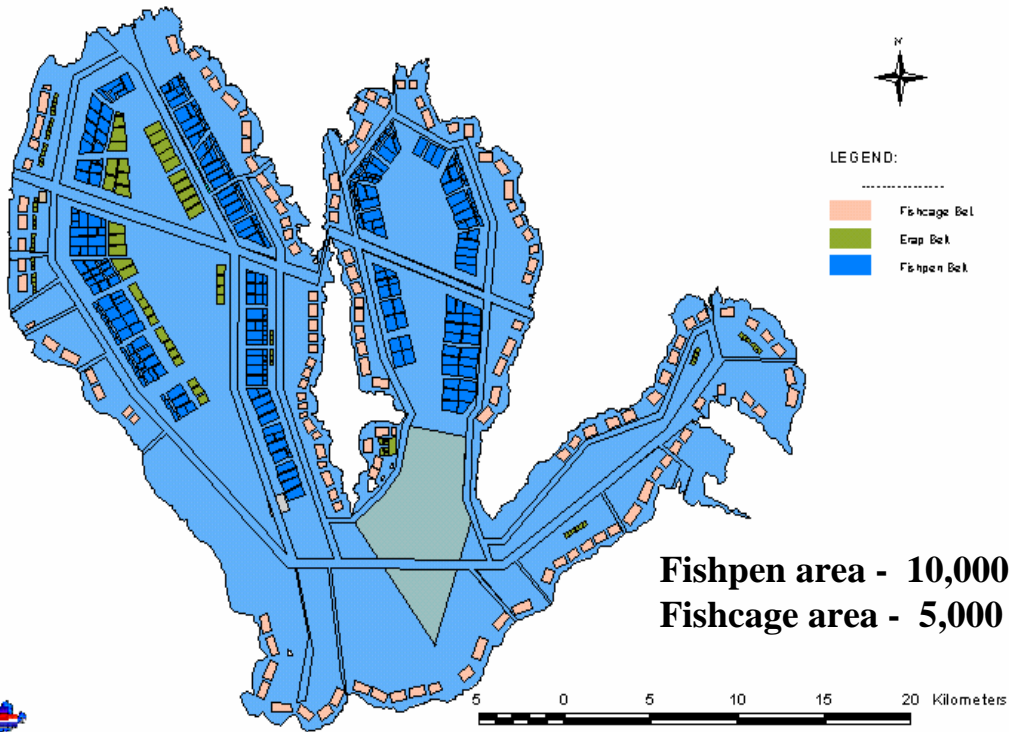
CHALLENGES

- **Water Quality of Surface waters**
 - **Expansion of Development Activities**
 - **Inadequate Regulation and Enforcement**
 - **Lack of Strength as an IWRM agency**

**STRUCTURAL &
NON-STRUCTURAL
COUNTERMEASURES**

Implementation of the ZOMAP

ZONING and MANAGEMENT PLAN 1999



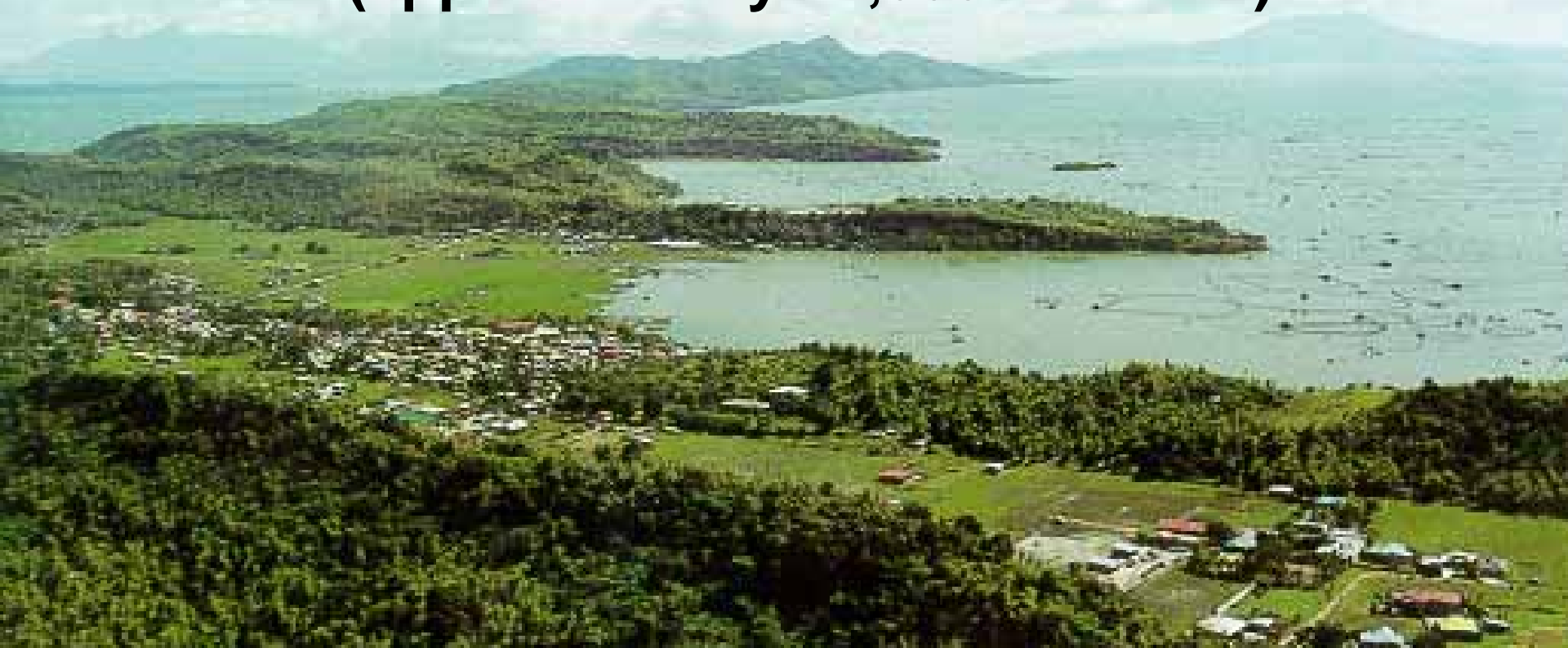
Implementation of the Environmental User Fee System (EUFS)



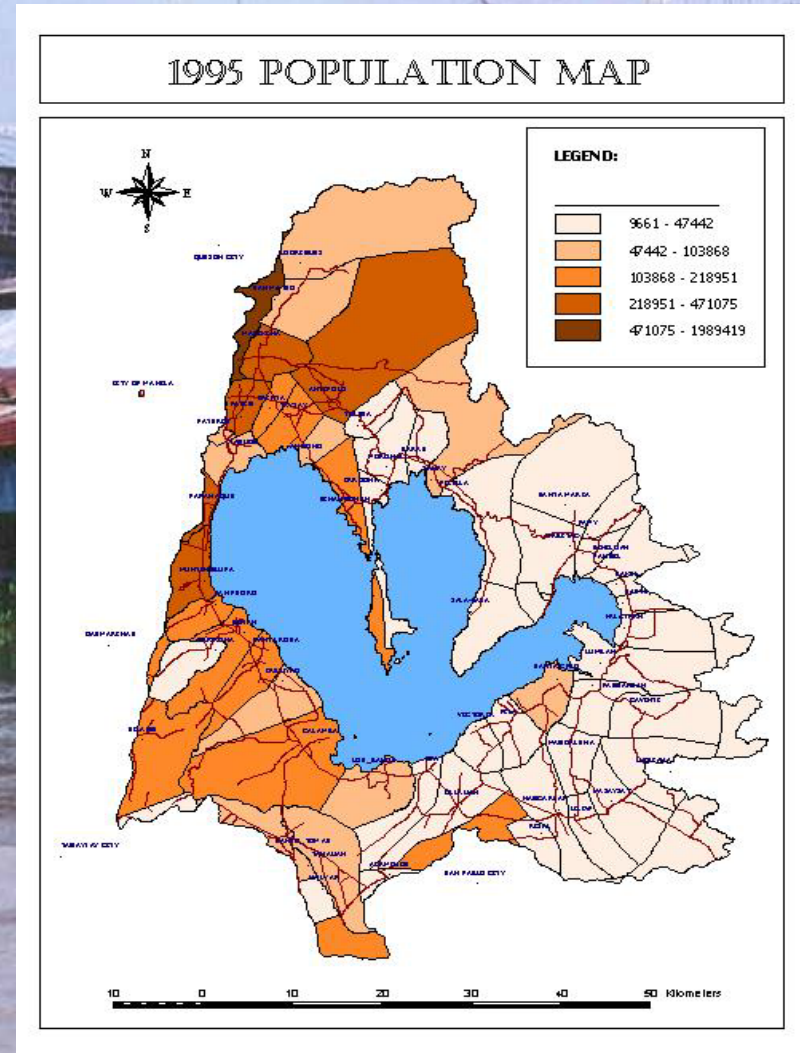
A pioneer market-based instrument for pollution control and abatement in the Philippines

Implementation of the Shoreland Management Plan

Shorelands- a strip of land along the perimeters of Laguna de Bay (approximately 14,000 hectares)



Rapid Urbanization and Industrialization



Implementation of the River Rehabilitation Program

A model in multi-sectoral/multi-agency river basin approach

With the RRP:

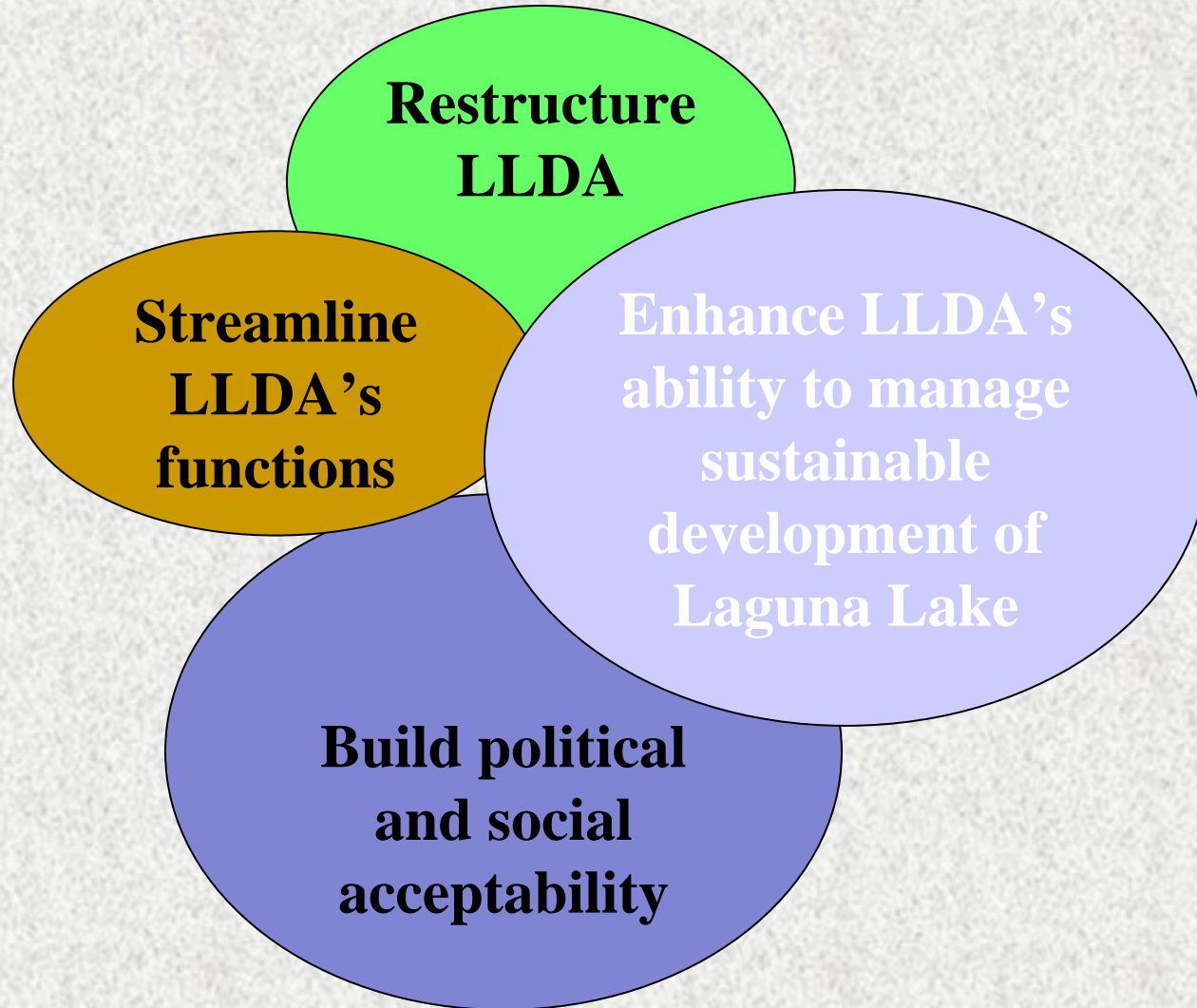
Fully intensified river rehabilitation efforts by covering all 21 major tributary river systems

Formed the first ever Environmental Army in the world with **400** members, **39** of whom are women



RE-ENGINEERING OF LLDA

Re-engineering Objectives



Strategic Objectives for the **Re-engineered LLDA**

- 1. Ecosystem based planning and management**
- 2. Participatory and partnership approach in planning and implementation**
- 3. Broadening market based instruments**
- 4. Restoring the water quality of the Lake**
- 5. Developing and sharing knowledge**



Laguna de Bay Institutional Strengthening and Community Participation (LISCOP) Project

Component 1

**Co-Managed
Investments for
Watershed
Development**

Component 2

**Improving Regulatory
Instruments/Approaches
and Strengthening of
Policy/Planning**



LISCOP CONTRIBUTIONS TO INSTITUTIONALIZING RE-ENGINEERED LLDA

- **Deepening co-management for watershed development**
 - **Micro-watershed improvement projects**
 - **Capacity building of LGUs, RCs, communities**
- **Financing environment protection and social development projects**
 - **Environmental Trust Fund**
 - **Laguna de Bay Development Corporation (LBDC)**

Future LLDA-NARBO Collaborations

- Development of a mechanism to encourage participation of stakeholders and the local government units within the region**
- Institutionalization of conflict resolution mechanism that persistently confronts LLDA**
- Formulation and implementation of programs that would enhance the environment of Laguna de Bay Region**

Thank You & Good Day

**Laguna Lake Development Authority
2/F Rizal Sports Complex Bldg.,
Rizal Provincial Capitol Compound,
Pasig City, Philippines**

Contact Nos.

637-9037, 637-9038, 637-9748

Email Address:

lldaogm@skyinet.net

Homepage:

www.llda.gov.ph