

# LEGAZPI CITY: DISASTER RESPONSE AND RESILIENCY INITIATIVES

**GILBERT C. GONZALES**

Regional Director

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

Philippines

6<sup>TH</sup> HIGH LEVEL SEMINAR ON  
ENVIRONMENTALLY SUSTAINABLE CITIES

JOHOR BAHRU, MALAYSIA

FEBRUARY 9-10, 2015

# OUTLINE OF PRESENTATION



1. LEGAZPI CITY
2. ESC MODEL CITY: PHILIPPINE  
FRAMEWORK
3. CITYLINKS: LEGAZPI AND FT.  
LAUDERDALE
4. CLIMATE CHANGE RESILIENCY
5. ESC FORUM
6. OTHER ENVIRONMENTAL  
MANAGEMENT INITIATIVES

# I. LEGAZPI CITY: LOCATION MAP





# LEGAZPI CITY

- Coastal city with frequent problems with natural disasters but keen to improve its resiliency to adapt to climate change
- Situated on the eastern of Albay province approximately 534 kilometers south of Manila (Philippine capital) and centrally located in the Bicol Region.
- Total Area: 20,437.09 Has
- Population : approx. 210, 615 ( as of 2013 based on National Statistics Office
- Barangays: 70 (45 are located in the Urban Area and the rest are distributed in the Rural Area)

# DISASTER RISK AND VULNERABILITY OF LEGAZPI CITY/ALBAY

- ❑ **19 to 21 typhoons** per year in the Philippines with 3-5 major direct hits on Albay.
- ❑ About 198,000 houses threatened by **wind** destructions and at least 350,000 people have to evacuate.
- ❑ **Mayon Volcano Eruption** threatens 3 cities and 5 municipalities
- ❑ 127 villages or 11,000 to 12,000 families threatened by **landslides**
- ❑ About 300,000 population out of 1.2M threatened by **tsunami**
- ❑ Eight municipalities and two cities threatened by **floods**.

## II. PHILIPPINE ESC MODEL CITIES

### I. YEAR1

1. PALO, LEYTE: *SOLID WASTE MANAGEMENT*
2. *PUERTO PRINCESA CITY: SWM*
3. **LEGAZPI CITY: *CLIMATE CHANGE ADAPTATION  
AND DISASTER RISK RESPONSE***

### **II. YEAR 2**

4. SANTIAGO CITY, ISABELA : *TAKURA METHOD AND  
BOKASHI COMPOSTING*
5. SAN CARLOS CITY : *AIR QUALITY AND  
WASTEWATER TREATMENT*



# THE CITYLINKS PROGRAM: OBJECTIVES

1. Improve climate-related governance and systems  
In targeted urban areas
2. Increase resilience of vulnerable communities in  
cities of Feed the Future focus countries
3. Improve water supply and sanitation access to  
Global Health Initiative countries
4. Facilitate the creation of resilient cities capable of  
addressing the challenges of climate change,  
Food security, and access to water and sanitation

## Part II ICMA CityLinks Pilot Partnership Program

- **ICMA CityLinks™ Program aims to assist city government to transform their city into well-managed cities in order to attain efficient service delivery, economic growth, sound management of resources, community health, and political stability—by learning best practices from other cities.**

- ▶ **ICMA (International City/County Management Association): administers the program.**



## Part II THE ICMA CITYLINKS PILOT PARTNERSHIP PROGRAM

- **ICMA CityLinks™ Program**
  - funded by the USAID
  - designed by ICMA whose primary objective is to develop the capabilities of local officials to improve efficient delivery of services, economic growth, sound management of resources, community health, and political stability—and that cities learn best from other Cities.
- **Aims to develop tools and resources that advance professional local government management to create sustainable communities that improve lives worldwide.**

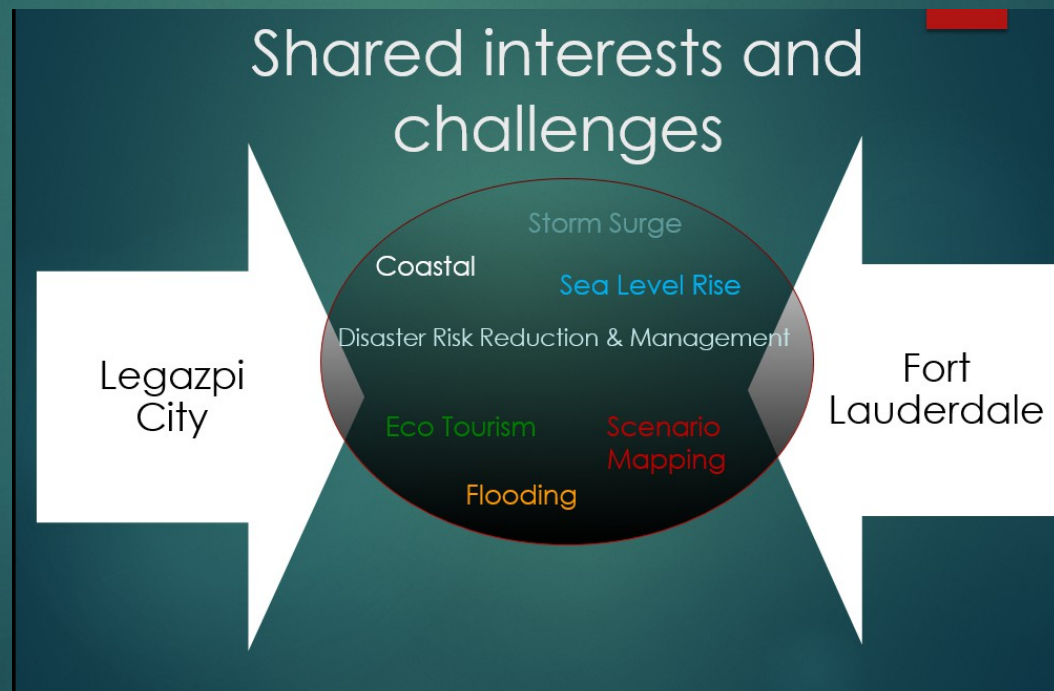
# ICMA CityLinks Climate Leadership Academy on Urban Adaptation

August 2013 at Jakarta, Indonesia

- ▶ Legazpi City is one of the cities in the ASEAN who participated in the program.
- ▶ CLA enables **municipal officials** in developing and decentralizing countries to draw on the resources of their U.S. counterparts to find **sustainable solutions** tailored to the real needs of their cities.
- ▶ A unique training and peer-learning opportunity focusing on managing the social, political, environmental, and financial risks of **adapting urban infrastructure to the impacts of climate change**.
- ▶ The Leadership Academy provides cities the **opportunity to collaborate, learn and share best practices** with peers throughout the region facing similar climate adaptation challenges.

# ASEAN CITY SELECTION CRITERIA: LEGAZPI CITY

- Climate Leadership Academy: Participation affirmed in Jakarta on 2013.
- SURVEY ACTIVITIES: Completed
- CLAACTION PLANS: Commitment to the attainment of goals and strategies presented
- ASEAN-U.S. city partnership : Roles were defined





# CLIMATE LEADERSHIP ACADEMY: ACTION PLANS/COMMON THEMES

- Citizen Engagement
- Climate Data
- Cross-Sector Working Groups
- **Strategic Planning for Climate Adaptation**
- Restore Ecosystem Services

US City Selection: Fort Lauderdale Florida

- **Sea level rise modeling/scenario planning**
- **Ecosystem-based storm water management**
- **Focus on urban forestry and biodiversity**

# LEGAZPI CITYLINKS TEAM

## - Legazpi City Diagnostic Assessment Trip (APRIL 2014)



### Interests

- Storm water management
- Building codes for climate change
- PPPs for infrastructure financing
- Scenario Planning
- Integrating climate data into planning

### Strengths

- Disaster Risk Management
- Community Engagement
- Identification of vulnerable citizens
- Cross cutting approach to CC
- Community based risk mapping









# LEGAZPI TO FORT LAUDERDALE

Sea Level Rise

Adaptive Land use Planning

Storm water Management



Wastewater Treatment

Green Infrastructure

Information Exchange

Ecosystem-based Public Works System



# LEGAZPI TO FORT LAUDERDALE



Information Exchange



Sea Level Rise



Adaptive Land Use Planning



Wastewater Treatment



Green Infrastructure



Ecosystem-based Public Works System

## Part IV Project Plan

### Local Risk Reduction Management Planning – Scenario Based Mapping & Stakeholder Capacity Building

**Work plan Objective:** to build Legazpi's local government capacity in developing scenario based maps for land use planning, particularly along the coasts





# CONTINUING ACTIVITIES

- ▶ **TECHNICAL EXCHANGE:** ICMA/Fort Lauderdale Experts on land use and GIS mapping arrived in Legazpi City last Feb 1 until Feb 7, and conducted series of technical meetings with Legazpi City Government on the proposed programs developed thru the CLA program.
- ▶ **LAND USE PLAN:** adaptive land use planning and the integration of disaster risk management, geohazards assessment and in support to zero casualty policy of the Provincial Government of Albay.
- ▶ **FLOOD MITIGATION PROJECT:** Construction of Three (3) pumping stations are now on-going to address flooding and potential sea level rise
- ▶ **LOW CARBON INITIATIVES:** Installed solar powered streetlights with LED lamps

# CONTINUING ACTIVITIES

- ▶ **ESC LGU Best Practices Forum: Orientation and information sharing on the activities conducted by 4 ESC model cities on their respective programs hosted by the DENR/LGU-Legazpi City on 05-06 February 2015.**



# WAY FORWARD



## PURSUE OTHER ENVIRONMENTAL INITIATIVES

- ▶ **URBAN GREENING**: INCREASE VEGETATION COVER THRU THE NATIONAL GREENING PROGRAM
- ▶ **AIR QUALITY**: REGULATION ON MOTOR VEHICLE EMISSION AND TRAFFIC MANAGEMENT
- ▶ **WATER QUALITY**: SEWAGE TREATMENT SEPTAGE MANAGEMENT SYSTEM
- ▶ **SOLID WASTE MGT**: UPGRADING OF WASTE RECYCLING AND MATERIAL RECOVERY FACILITIES