



SUSTAINABILITY INITIATIVES in the City of Cebu

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City Profile

China

Kitakyushu city

Tokyo

Cebu City

- Capital city of the Cebu Province and the oldest city in the country.
- Considered as the 2nd largest center of business in the country. Center of trade & commerce in the southern part of the Philippines.

- An active member of the Kitakyushu City's Environmental Network of Asian Cities.

- A partner of the International Environmental Technology Centre (IETC) and UNEP

Thailand

Viet Nam

Philippines

Cambodia

Malaysia

Singapore

Indonesia

Cebu city

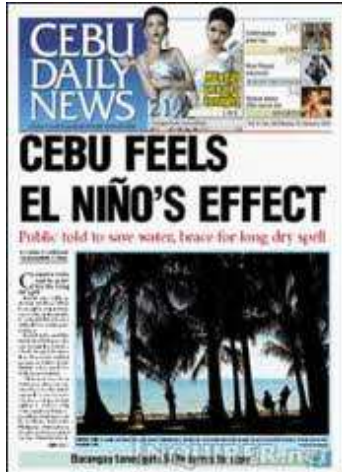
Population: 866,171 (NSO 2010)

Daytime population: estimated at more than a million

Total Land Area: 315.0 km²

(50 Urban Barangays, 30 Rural Barangays)

Why SUSTAINABLE DEVELOPMENT?



- *Rapidly rising energy costs
- *Water shortages/ Saltwater intrusion
- *Challenges in SWM
- *Vulnerability to landslides & floods
- *Extreme weather events
- *Preserving heritage and culture

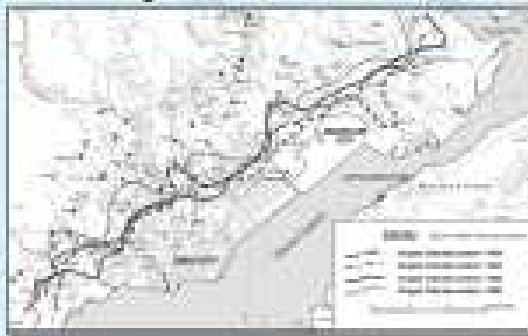
Experts predict - **70%** of the world's **population** set to live in crowded cities.

World's big cities set to grow even more crowded by 2050

By the **middle of this century** most regions of the developing world will be **predominantly urban**.

MCWD: Metro Cebu water production down

Cebu Daily News 7:06 am | Saturday, May 4th, 2013



Saltwater Intrusion in Metro Cebu



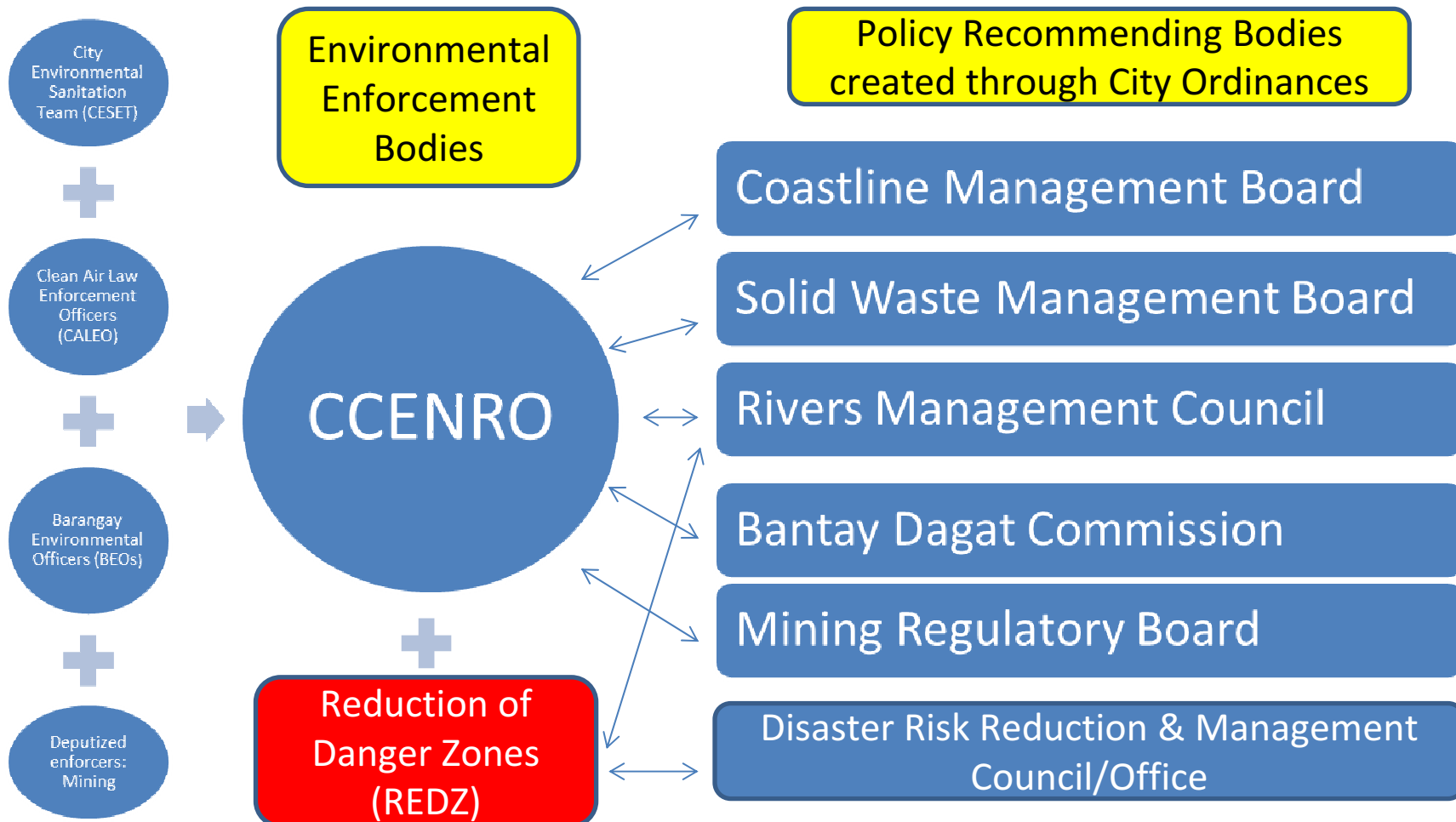
CEBU CITY GOVERNMENT policies and programs for a sustainable city

a) **City Ordinance No. 2243** (otherwise known as the Sustainable Development Ordinance of the City of Cebu)



CEBU CITY GOVERNMENT policies and programs for a sustainable city

b) **City Ordinance No. 2234** (creation of the Cebu City Environment and Natural Resources Office – CCENRO)



CEBU CITY GOVERNMENT policies and programs for a sustainable city

c. **City Ordinance No. 2343** *No Plastics Saturday Ordinance*

(note: to be expanded to a 2nd day after 1 year of implementation; part of measures to manage waste plastics that clog up waterways and/or end up in landfills)

“Plastic Shopping Bag – any carry bag or punch hole bag made of polyethylene with a thickness ranging from 7 to 25 microns utilized or sold at the retail point of sale for carrying & transporting retail products or merchandise.”



HDPE



LDPE



Regulation: No use during Saturdays; customers may bring recyclable bags (with incentives for the latter)



Centralized recovery bin

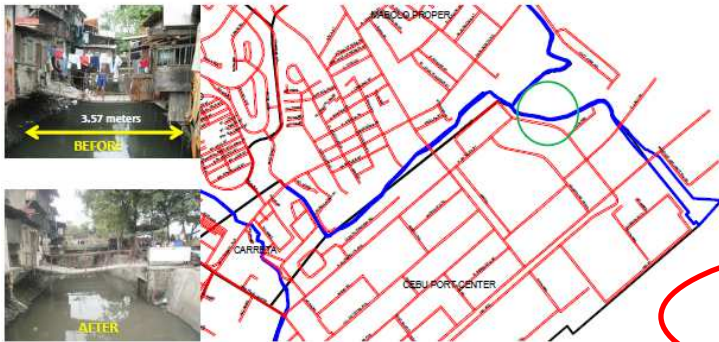


Delivery of collected waste plastics to recyclers or manufacturers of plastic shopping bags

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d. Clearing Natural Waterways [integrated with the ongoing effort to update the Drainage Master Plan]

MAHIGA CREEK RECOMMENDED WIDTH = FROM 25m - 50m



MAHIGA / BANILAD CATCHMENT:

CATCHMENT AREA PARAMETERS:

CATCHMENT AREA = 1,239.154 Ha.
TOP ELEVATION = 200 meters
BOTTOM ELEVATION = 0 meters

DATA FROM THE DRAINAGE MASTER PLAN STUDY 2006

IDENTIFIED FREQUENTLY FLOODED AREA = 6.21 Ha.
AFFECTED HOUSEHOLD = 1,180 households

CURRENT SITUATION:

- > OUTLET IS NARROW @ 4meters
- > HUNDREDS OF RESIDENTS LIVING AT THE RIVERS

ESTIMATED COST FOR DRAINAGE PROGRAMS

NO.	DETAILS	EST. COST
A	INFRA COST	71,100,000
1	Rainwater Tank	4,000,000
2	Mini Dams	10,500,000
3	Infiltration Bed	30,000,000
4	New Drainage Trunk	26,600,000
B	DETAILED ENGINEERING COST	7,669,620

ESTIMATED COST FOR DRAINAGE PROGRAMS

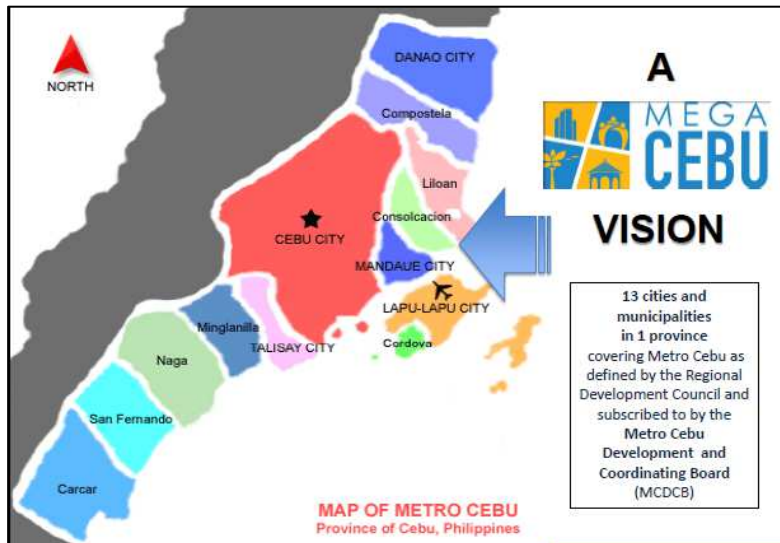
NO.	DETAILS	EST. COST
A	INFRA COST	835,748,595
1	Rainwater Tank	c/o Public
2	Mini Dams	5,608,910
3	Infiltration Bed	c/o Public
4	New Drainage Trunk	116,567,435
5	Channel Improvement	713,572,250
B	DETAILED ENGINEERING COST	66,859,888
C	LOT/STRUCTURE ACQUISITION COST	2,205,000,000

RECOMMENDED WIDTH = FROM 25m - 50m



CEBU CITY GOVERNMENT policies and programs for a sustainable city

e. Green Cooperation with Other Cities in the Cebu Province through the Mega Cebu vision



Smart Growth communities are:

1. **Connected** Walkable | Bikeable | Transit-Ready | Proximate
2. **Compact** As dense as the market will bear
3. **Complete** Balance of Jobs | Housing | Retail | School | Programmed Open Space
4. **Complex** Housing for a diversity of Age | Income | Transect preference
5. **Convivial** Public spaces that are Safe | Engaging | Accessible | Comfortable
6. **Conserving** Buildings that are Resource Efficient | Healthy | Durable | Resilient

Is Mega Cebu Up To The 6C Challenge?



Source: S. Antonio, DPZ

SMART MEGA-CITIES and CITY REGIONS

- Attract and retain investments and talent
- Handle more people and meet associated demands (jobs, traffic, transport, waste, energy, environment, food, water, housing, recreation, education, etc.)

Source:



CEBU CITY GOVERNMENT policies and programs for a sustainable city

f. International Partnerships

Kitakyushu City thru the Environmental Cooperation Network of Asian Cities

International Environmental Technology Center (IETC) and United Nations Environment Program (UNEP)

Community-based Solid Waste Management Program



Proposed Plastic Waste Recycling Model Project in Barangay Level



United Nations Environment Programme
Division of Technology, Industry and Economics
International Environmental Technology Centre



Development Academy of the Philippines
Center for Sustainable Human Development
Environmental Management Office

A. WASTE PLASTIC TO FUEL TECHNOLOGY



B. PELLETIZER



Ways Forward

- a. Environment Code of the City of Cebu
- b. Comprehensive Land Use Plan (CLUP)
and Revision of the Zoning Ordinance
- c. Energy Efficiency and Conservation Program
- d. Green Building Ordinance
- e. Strengthening resilience of communities
amidst climate change
- d. Moving towards a low-carbon and resource efficient city;
active advocacy in both national and international levels.



Mobility



Livability

Our Future: Mega Cebu

Metro Management

Competitiveness

Source:



THANK YOU FOR YOUR ATTENTION!

