



Climate Change and Environmental Sustainability Initiatives

Quezon City



Quezon City

National Capital Region (NCR)

Land Area: **16,112.58 Hectares**

Population: **> 3 million**

Number of Registered Businesses: **> 65,000**

The Green Lung of Metro Manila

The Knowledge Industry Capital of the Philippines

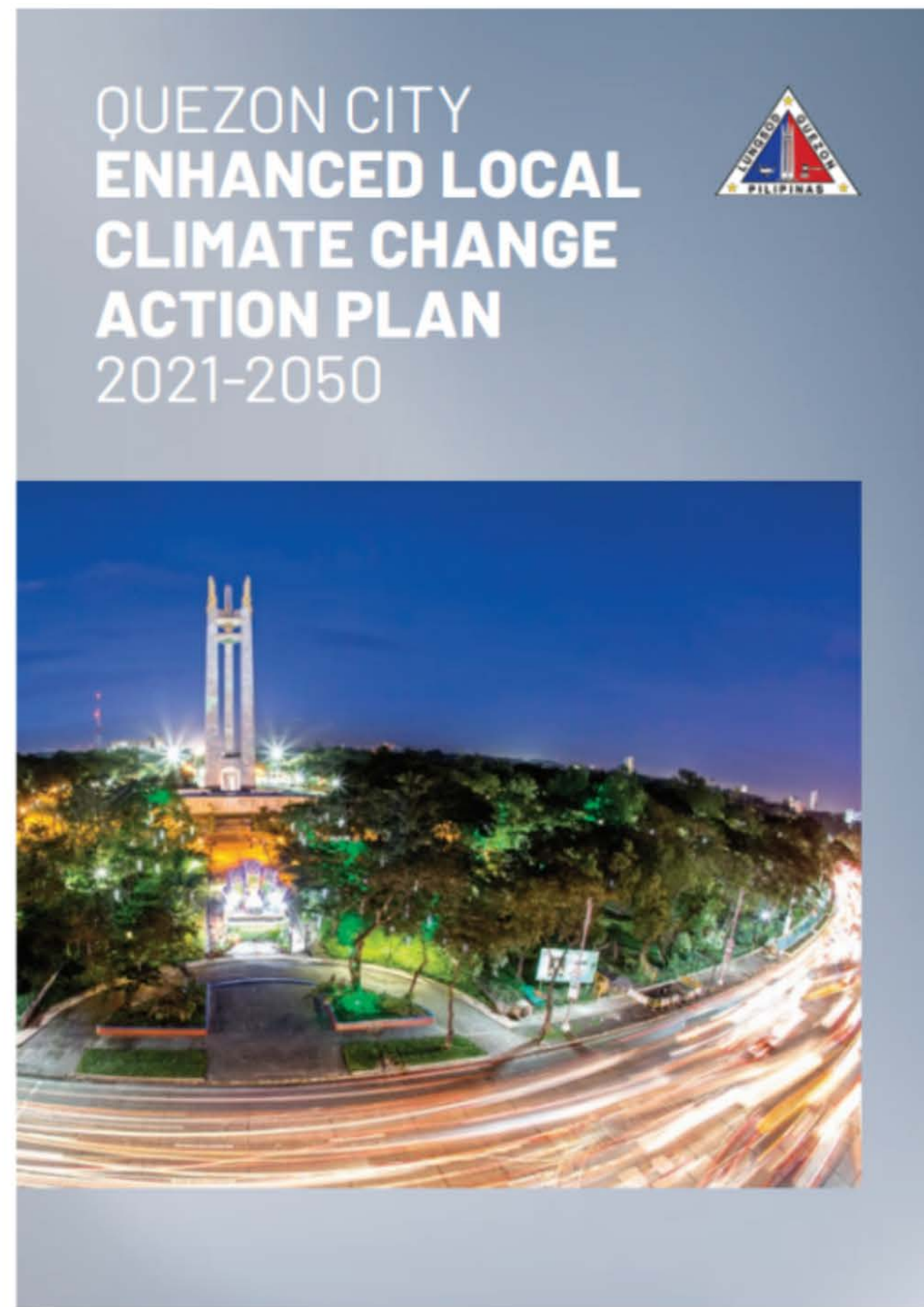
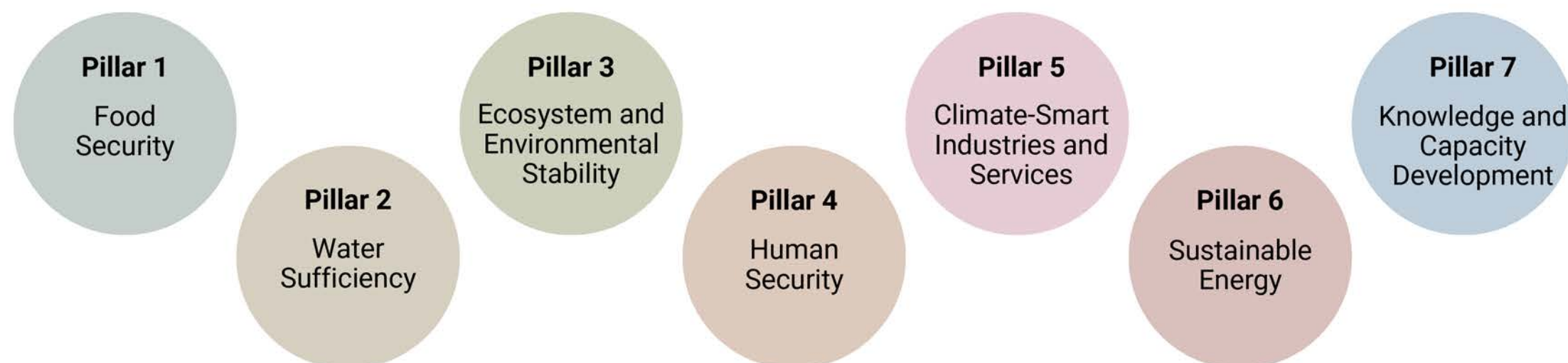
The Health and Wellness Center in Asia-Pacific



Quezon City Enhanced Local Climate Change Action Plan 2021-2050 (Enhanced LCCAP)

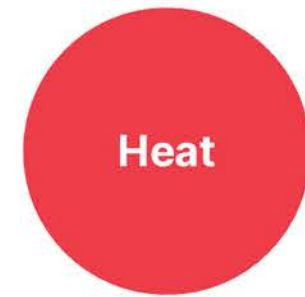
An ambitious and evidence-based roadmap that allows the City to:

- Build climate resilience
- Pursue carbon neutrality
- Advance green economic development
- Provide a liveable and quality community for all



Climate Risk Assessment

Climate Risks Identified in Quezon City



Increasing & more frequent air temperature extremes

Increasing water temperature

Heat stress



Longer & more extreme droughts

Lower water levels

Increased soil subsidence



More frequent & extreme precipitation events

Soil erosion

Rainfall-induced landslides

Flash floods

More intense tropical cyclones

Social Impacts

- Decrease in (dam) water availability;
- Displacement & loss of lives because of storms & floods;
- Increase of drought-related health impacts;
- Post-flood disease outbreaks
- Heat stress causing illness & loss of life (also to livestock);
- Increase of water- and vector-borne diseases;
- Threatened access to safe drinking water after flooding;
- Threatened food security.

Natural Impacts

- Heat causing change in distribution & structure of biodiversity;
- Threatened biodiversity because of drought;

Economic Impacts

- Drought & flood-related decline in food production;
- Disruption of traffic;
- Increased energy consumption & emissions;



Climate Change Mitigation



1. **Striving Towards a Circular Economy, prioritizing Organic, Paper and Plastic Waste**
2. **Green, Energy-Efficient, and Resilient Buildings and Establishments through the Green Building Code**
3. **Secure Clean and Affordable Renewable Energy Access, Solarizing Government-Owned Buildings**
4. **Mainstreaming Energy Efficiency and Conservation in Government-Owned Facilities**
5. **Active Transport through Walking and Cycling**
6. **Clean and Efficient Local Bus Transit System and Government-Owned Vehicles Towards Improved Air Quality**



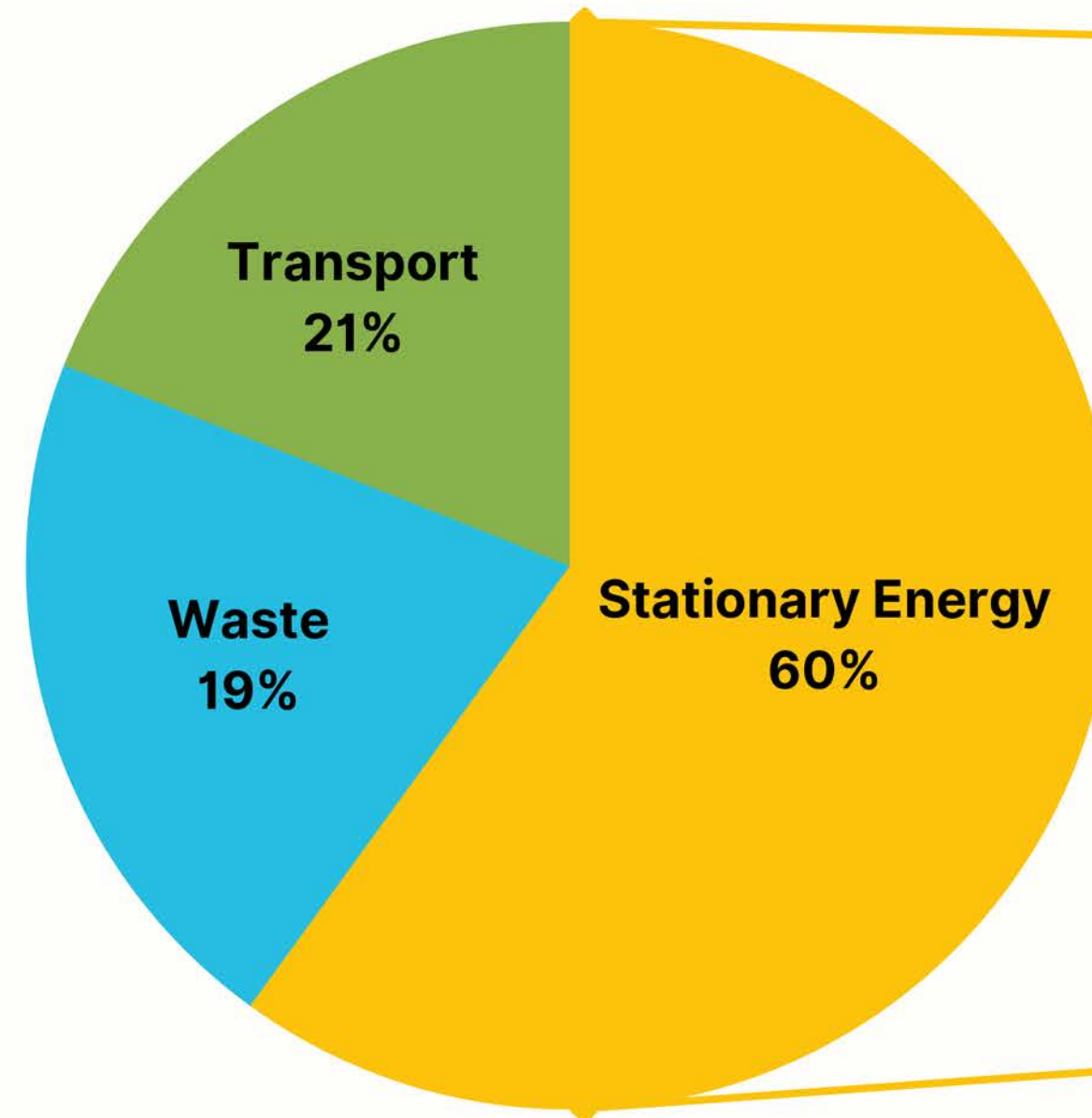
Climate Change Adaptation



- 1. Promotion of Urban Farming and Localized Food Production**
- 2. Increase Water Security through Robust Demand Side Management (e.g. Rainwater Harvesting)**
- 3. Promotion of Nature-Based Solutions to Flood Mitigation Measures (e.g. Water Retention Basins)**
- 4. Promotion of Nature-Based Solutions to Reduce Heat and Drought Pressures through the Green Corridor Network and Urban Biodiversity Plan**
- 5. Build Safe and Resilient Housing and Public Infrastructure for the Most Vulnerable**
- 6. Mixed Use Zones for Improved Accessibility of Services to Communities**



Greenhouse Gas Emissions Inventory



- Residential Sector (24%)**
 - Electricity consumption
 - Household appliances
- Manufacturing Sector (25%)**
 - Electricity consumption
 - Use of diesel generators
 - Industrial chemicals
 - Construction industries
- Commercial Sector (51%)**
 - Government-owned buildings (National & Local)
 - Commercial buildings

Strategic Goals



City with better air quality



City rivers and waterways with improved water quality



Quezon City as the learning and information hub for sustainable energy and energy efficiency practices



City that transitions to sustainable transport, such as the use of electric and hybrid vehicles, active mobility, and mass public transportation



City with mainstreamed circular economy initiatives across all sectors



Well-prepared and resilient city amidst water resource pressures



City with adequate green spaces for QCitizens as nature-based solutions to climate change



City that promotes healthy diet and sustainable food consumption



Well-informed QCitizens on climate change and sustainability



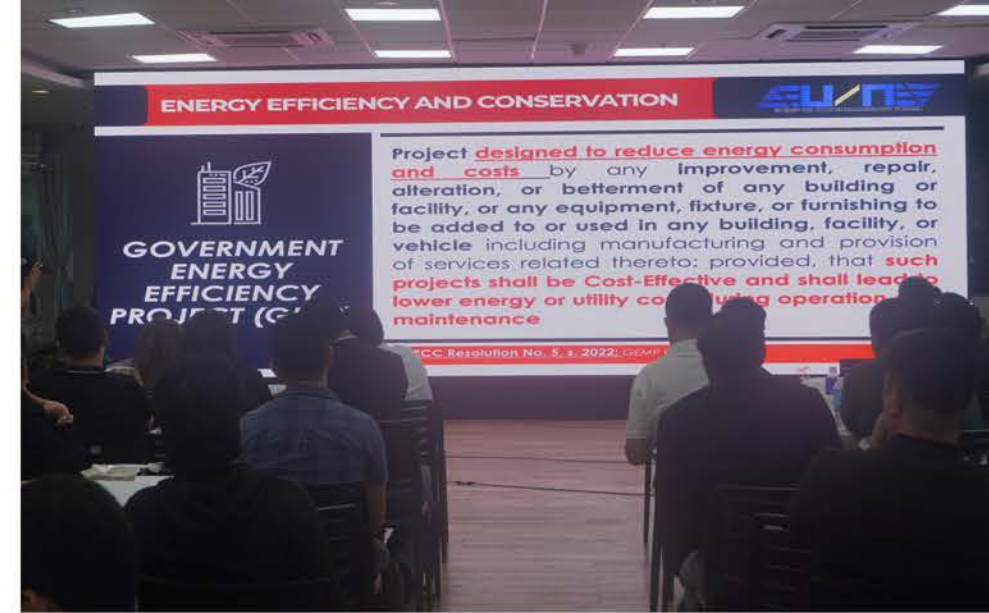
City with highly capable and equipped office dedicated for climate action



Renewable Energy & Energy Efficiency

Key Accomplishments

- Solar energy project for city-owned buildings and facilities
 - City Hall: Main, Legislative, and Treasury buildings
 - Underway: Civic D, E, F, 3 city-owned hospitals, 50 public schools
 - IGES and Oriental Consultants are conducting pre-feasibility studies - 50 public schools each (PPP model)
 - Tripartite agreement with Energy Regulatory Commission (ERC) & Meralco being finalized to streamline net metering application and other government permitting processes
- Local Energy Efficiency and Conservation Program (LEECP)
 - Climate Change, Planning, and General Services Departments (CCESD, CPDD, & GSD) designated as Energy Conservation Officers
- Green Building Code Amendment
 - Ongoing amendment to raise the minimum energy efficiency requirements for new buildings and major renovations, among others, while also providing incentives



**QC Green Building Code
C40 Technical Assistance &
Next Steps**





Renewable Energy & Energy Efficiency

Key Accomplishments

- Installation of energy efficient lighting
 - 99.37% of lights within the City Hall Compound
 - 26 city-owned libraries
 - 3 city-owned hospitals
- Energy Efficiency and Conservation (EE&C) orientations & distribution of LED bulbs to low income families
 - 334 participants engaged (4 out of 6 districts)
 - 608 LED bulbs distributed



REPUBLIC ACT 11285

ENERGY EFFICIENCY AND CONSERVATION ACT



It institutionalizes and enhances energy consumption and grants incentives to EE projects.





Sustainable Transportation & Green Space Development

Key Accomplishments

- 8 Bus Routes across the city offering free bus rides
- More than 100 buses utilized
 - 8 Electric Buses
- 15 hybrid vehicles for city use
- 278 units of e-tricycles distributed
- Active Mobility
 - 125 km of bike lanes completed
 - Over 10 kms of pedestrian corridors (GORA Lane) improved
- Public Green Spaces
 - 226 city-owned parks and open spaces
 - QMC Redevelopment Master Plan
 - La Mesa Ecopark Master Redevelopment Plan





Implementation of Plastic Ordinances

Key Accomplishments

- Conduct of inspections and issuance of Ordinance Violation Receipts (OVR)
- Deployment of 1,200 Eco Warriors
- Series of orientations
- Executive Order (EO) on plastic bags and Single-Use Plastic (SUP) usage in city government
 - Components:
 - Plastic bags and styro packaging are not allowed in city-owned facilities
 - All supplier deliveries should minimize plastic packaging, use eco-friendly materials for food items, and transition to glass bottles or water dispensers.
 - Employees are encouraged to use reusable bags, containers and cutleries.
 - City-organized events (meetings, activities, etc.) should be promoted as plastic-free





Circular Economy

Key Accomplishments

- Trash to Cashback Program
 - 367,185.66 kgs of recyclables recovered, equivalent to 1,184,846.73 Environmental Points
- Biodigesters and Food Rescue
 - 31 biodigesters, 2,810 kgs of food waste processed into 66.35L of soil conditioner
- Tarpcycling Program with Spark! Philippines & Quezon City Jail - Female Dormitory
 - 148,841 kgs of tarpaulin upcycled
- Kuha sa Tingi Program
 - 1,000 sari-sari stores activated as refill hubs
 - 700,000 sachets avoided in 4 months
- Kilo/s Kyusi
 - 1 million in sales towards Learning Recovery Trust Fund during the launch event
 - Store in City Hall earned >Php500K in less than 1 month





Water Efficiency and Conservation

Key Accomplishments

- Creation of El Niño Task Force
 - Memorandum of Understanding with Maynilad Water Services, Inc. for re-use of treated wastewater
- 119 public schools equipped with Rainwater Harvesting Systems (RWH)
- Promotion of responsible water use and water conservation practices
- Member of the C40 Cities' Water Safe Cities Accelerator Network in 2023



QUEZON CITY CLIMATE CHANGE AND ENVIRONMENTAL SUSTAINABILITY DEPARTMENT

Water Efficiency and Conservation

Quezon City is not immune to the threats of water insufficiency and recognizes the reality of these impacts, most of which are felt today and are anticipated to worsen in the next few years.

Since the approval of the Enhanced Local Climate Change Action Plan for 2021-2050 (LCCAP), Quezon City has implemented concrete actions to ensure a sustainable water future. These actions include:

- **Rainwater Harvesting:** 119 schools are equipped with rainwater harvesting systems, capturing a valuable water source and reducing reliance on potable water. The city also continuously expands the installation of rainwater harvesting systems to cover more public facilities such as hospitals, multi-purpose buildings and other infrastructure

LA MESA TREATMENT PLANT 1

MAYNILAD

MA. JOSEFINA C. BELMONTE
City Mayor, Quezon City

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Legislation and Partnerships



Climate Emergency
Resolution No. SP-7999, S-2019

Plastic Bag Ban Ordinance
SP-2868, S-2019

SUP & Disposable Materials Ban Ordinance
SP-2876, S-2019

Creation of CCESD
SP-3009, S-2020

Healthy Public Food Procurement Policy
EO No. 16, S-2021

Green Public Procurement
SP-3107, S-2021

Air Quality Management TWG
EO No. 4, S-2023

Energy Efficiency & Conservation TWG
EO No. 15, S-2023

El Niño Task Force
EO No. 25, S-2023

Calorie Labeling Policy
SP-3254, S-2024

Climate Action Implementation with
C40 Cities and UK-AID

City-to-City Collaboration with
Osaka City, Japan

Air Quality Management Plan
Development with
Clean Air Asia

Water Quality Management Plan
Development with
Woodfields, Incorporated

ACE Project with the **UNDP, DENR and the Government of Japan**

Trash to Cashback with
BEST Inc. & Meralco

Kuha sa Tingi with **Impact Hub Manila & Greenpeace Philippines**

Sparking Active Mobility Actions for
Climate-Friendly Cities with
ICLEI-SEAS



Thank you!



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