



Low-Carbon Model Town in [Davao City, The Philippines]

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Introduction of Davao City

- Davao City is a highly urbanized city in the island of Mindanao, The Philippines. The city has a total land area of 2,443.61 square km.
- Topographically, a substantial part of Davao City is mountainous, characterized by extensive mountain ranges with uneven distribution of plateaus and lowlands.
- Aside from being one of the major cities in the economy, its historic role as area of convergence for trade and commerce in the eastern part of Mindanao, as well as the strategic location of its international sea and air ports made it suitable to serve as the prime trade center in the Brunei Darussalam-Indonesia-Malaysia-Philippines-East ASEAN Growth Area (BIMP-EAGA).
- The barangay is the smallest local government unit in the Philippines. Each barangay is headed by a Barangay Captain. The Davao city is comprised of 182 barangays grouped into 11 political and 3 congressional districts.

Low-Carbon Model Development in Davao City

Low-carbon policies in Davao City include the following:

- Comprehensive Land Use Plan (2013-2022) for sectors such as Industry, Agriculture, Tourism, Waste Management, and Water Resources;
- Philippine Energy Efficiency Action Plan for 2016–2020 for sectors such as Industrial, Transport, Commercial buildings, and Residential buildings;
- Power Development Plan 2016-2040 for the Power sector; the Philippine Energy Plan 2016-2030 which will be covering Fuel Supply, Renewables, and Oil and Gas;
- Renewable Energy Roadmap 2017-2040 for the Renewable Sector;
- Davao City Transport Roadmap for the different modes of transport; and
- Davao Regional Development Plan 2017-2022 for the Agriculture and Industry sectors in the city.

CO2 Reduction Results and Roadmap

Proposed List of Low Carbon Measures in Davao City

Sector	BAU Scenario (GHG Emission in 2030 MTCO ₂)	Low Carbon Interventions (LCI) Proposed	GHG Emissions post LCI implementation (in 2030)
Transport	0.915	Implementation of Odd & Even Road Rationing Scheme for private cars only	0.777
Untapped Energy	1.13	12 MW of Waste to Energy plant in the Davao city	1.09
Buildings (Residential and Commercial)	0.881	Implementation of energy efficiency building codes	0.798
Energy Management System	1.17	Implementation of Building Energy Management System	1.05

Notable achievements

- Local Climate Change Action Plan (LCCAP) –this already approved Plan helps in mainstreaming projects and policies into the government development plans that will address the climate emergency and was implemented by the City Government to focus on the GHG Inventory (GHGI), mitigation, and adaptation.
- Comprehensive Land Use Plan (CLUP) 2019 – 2028 –is a planning document prepared by the LGUs to rationalize allocation and proper use of land resources. It has inclusions of policies that will also help address the GHG emission in the city through the proposed zoning ordinance includes policies that limits entry of highly-pollutive and highly-hazardous industries. CLUP is now approved in its second reading at the Sangguniang Panlungsod. Included in this Plan is the Zoning Ordinance, which was implemented in 2015 and declared a total of 74,684 hectares (or 31% of the city's land area) as conservation, forest, parks recreation or mangrove rehabilitation. Among its regulations is the required 15 percent green space in all developments in the city.
- Forest Land Use Plan (FLUP) 2019 – 2024 –this Plan advances policies such as the protection, enhancement, and advancement of forest lands in the city and covers all the forest land areas, as well as the watersheds within the territorial jurisdiction of the city.

Notable achievements

- Davao City Ecological Solidwaste Management Ordinance –was enacted in to promote improved methods of waste collection, separation, processing, recovery, and disposal.
- Conversion of Used Cooking Oil to Bio-Diesel Fuel Program –this project, which converts used oil to biodiesel fuel, is now operational. This aims to reduce the use of petroleum diesel as it greatly contributes to the GHG emission.
- High Priority Bus System (HPBS) –a project under the Davao City Transport Roadmap, which aims to developing a transport system that is greener, reliable, and efficient in serving the community.
- Bicycle Ordinance of 2009 –Highlighted in this policy is the inauguration of the 54.7-kilometer bike lane network that stretches across 14 road sections of the city. Cycling can reduce carbon footprint, so the more people being encouraged to choose cycling to and fro can create a significant impact in the future.

Self-assessment results by LCT-I system

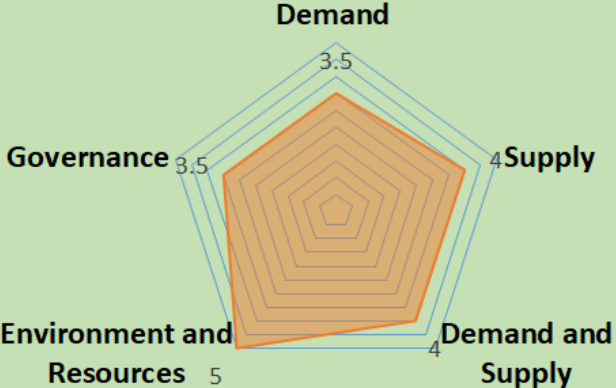
Overall Ranking



Total point average of (1) of (18) **4**

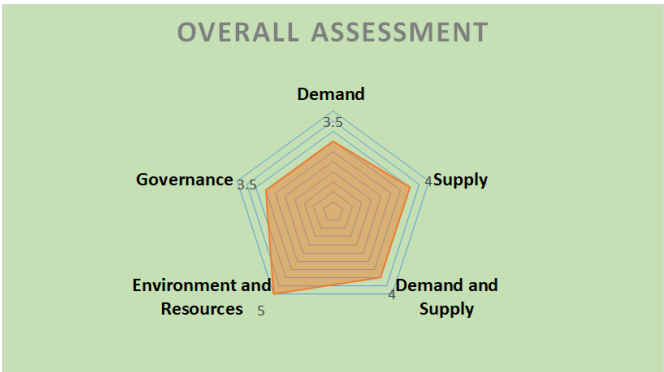
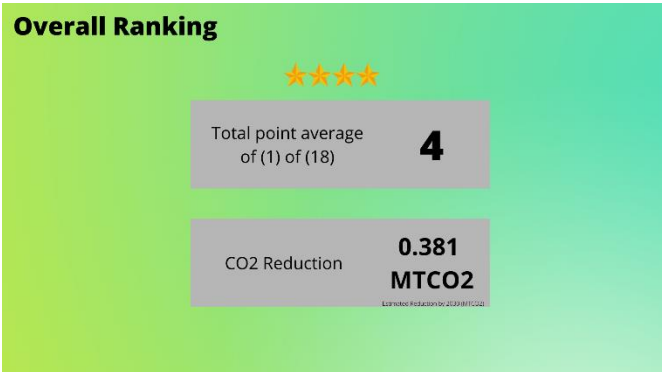
CO2 Reduction **0.381 MTCO2**
Estimated Reduction by 2030 (MTCO2)

OVERALL ASSESSMENT



Self-assessment results by LCT-I system

Tier 1	Tier 2	Ranking
Demand	Transportation	3.5
Supply	Untapped Energy	4
Demand and Supply	Energy Management System	4
Environment and Resources	Waste Management	5
Governance	Policy Framework	3.5
	Education and Management	
Total Point Average		4



Self-assessment results by LCT-I system

Current status and challenges to low-carbon town development

- The City Government of Davao's struggles are the limited data that are useful to improve or implement low-carbon initiatives and funding for these projects as the City Government of Davao is also mindful of implementing other infrastructure projects that have been prioritized prior to these. Apart from that, the city has not encountered any more problem in the implementation of low-carbon policies so far as the City Government coordinates and/or consults with the stakeholders in the process of creating and implementing policies that would serve the best interest of the constituents or of the City.

Future plan

- The low carbon development of the city is continuous and is actively being planned or implemented as the goal to become a low carbon city remains part of any stage of its economic development, regardless of the challenges. Having passed the Local Climate Change Action Plan (LCCAP) 2019-2023, the city emphasized the effort to reduce greenhouse gas (GHG) emissions as among its climate change mitigation. In fact, the first-ever conducted GHG Inventory in the city is the first step to managing GHG risks and identify reduction opportunities through projects, policies, and other initiatives.
- As of now, among the projects in the city that is believed to greatly contribute to low carbon emission once fully implemented are the High Priority Bus System (HPBS), which regulates the number of vehicles through replacing the 7,000 public utility jeepneys with over 1,000 bus units to lower the carbon footprint discharged by vehicles, it is targeted to be fully operational by October 2023; and the Comprehensive Land Use Plan (CLUP) 2019 – 2028 which highlights a policy that limits entry of highly-pollutive and highly-hazardous industries and requires green architectures in all infrastructures in the city under the Zoning Ordinance, it is now being proposed in the City Council for approval.
- Meanwhile, reviving the city's Bicycle Ordinance of 2009 by developing facilities and infrastructures for bikers is an indication that the city envisions a city with a reduced carbon footprint through cycling. Other low carbon initiatives in the city such as the Conversion of Used Cooking Oil to Bio-Diesel Fuel Program is well implemented in the city.

Low-Carbon Model Town in images



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Thank you for your attention !