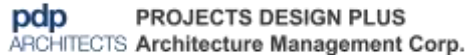


Liveable Cities Lab on Green Buildings and Open Spaces

August 25, 2021

Sense of Place: The Value of Green Buildings in Liveable Cities

By **Arch. Cathy S. Saldaña**
FUAP, Int'l Assoc. AIA, EAROPH
CEO & Managing Director – pdp Architects





NCR |METROMANILA

Downtown

City liveability index, March 2021
Rank out of 140, 1=most liveable

Score out of 100 | ● 20 ● 40 ● 60 ● 70 ● 80 ● 90



Source: The Economist Intelligence Unit

- | | |
|---------------------|--------------------|
| 1. Auckland, NZLD | 6. Perth, ASTL |
| 2. Osaka, JPN | 7. Zurich, SWTZ |
| 3. Adelaide, ASTL | 8. Geneva, SWTZ |
| 4. Wellington, NZLD | 9. Melbourne, ASTL |
| 5. Tokyo, JPN | 10. Brisbane, ASTL |



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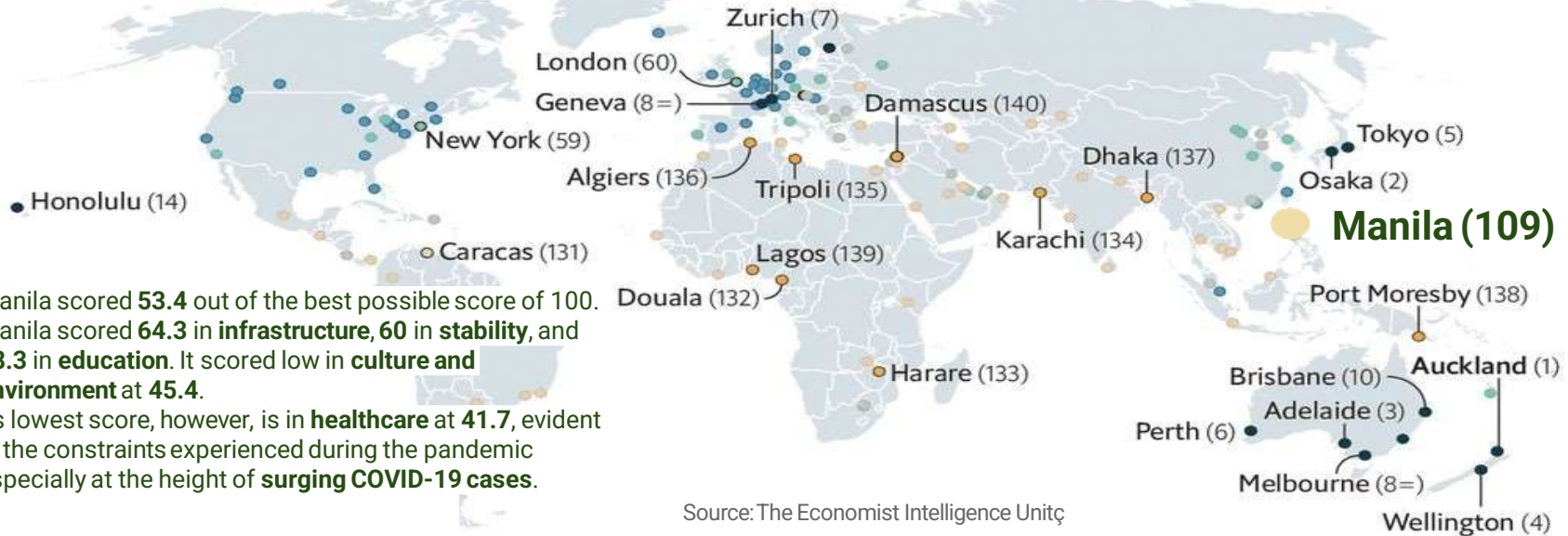
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MANILA IN THE GLOBAL LIVEABILITY RANKINGS (EIU, 2021)

Downtown

City liveability index, March 2021

Rank out of 140, 1=most liveable



- Manila scored **53.4** out of the best possible score of 100.
- Manila scored **64.3** in **infrastructure**, **60** in **stability**, and **58.3** in **education**. It scored low in **culture and environment** at **45.4**.
- Its lowest score, however, is in **healthcare** at **41.7**, evident in the constraints experienced during the pandemic especially at the height of **surging COVID-19 cases**.

Source: The Economist Intelligence Unit

WELL-KNOWN CITIES IN THE PHILIPPINES

MANILA

Manila is the capital and remains as the most densely populated city in the Philippines

BAGUIO

Baguio City has been and continues to be one of the most established cities in the country, with UNESCO recognizing it as a Creative City of Crafts and Folk Art in 2017



DAVAO

Davao City continues to emerge and is currently the largest city in terms of land area

CEBU

Cebu remains as a vibrant and festive city, recognized as a UNESCO Creative City of Design in 2019

CLARK



NEW CLARK CITY

New Clark City is a development located within the Clark Special Economic Zone that houses various facilities for sports, academics, commercial, and residential. It is positioned to be an evergreen city that will serve as a central hub, assisting in the decongestion of Metro Manila.

Athletic Stadium and Aquatics Center Photographed by Ed Simon.

CLARK GLOBAL CITY

Clark Global City is the second biggest commercial real estate market in the Philippines.

It is a mixed-use central business district development at the Clark Freeport Zone in

Mabalacat and Angeles City.

Photo from The Midcounty Post.



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A recent study among the 33 highly-urbanized cities in the Philippines was conducted by Dr. John Vianne Murcia, specialist of the University of Mindanao's Institute of Popular Opinion (IPO). The academic dissertation determined the liveability of Philippine cities based from their scores in the following dimensions:

PHYSICAL

Indicators under the physical dimension include population density, household size, and forest cover on total land area



ECONOMICAL

Households owning house and lot to total household population employment rate, poverty incidence, and annual per capita food threshold are some of the indicators considered in the economical dimension.

SOCIAL

The social dimension covers aspects such as fatal road accidents per 100,000 population, crime index, and public hospital bed capacity

GOVERNANCE

Indicators under the governance dimension include the ratio of electorate to population and Internal Revenue Allotment (IRA) per capita.

5 MOST LIVEABLE CITIES IN THE PHILIPPINES

(according to the study of Dr. John Vianne Murcia)

Lucena topped the physical/environmental category (7.187), which comprised the highest weighted value among the four indicators.

According to Dr. Murcia, Puerto Princesa definitely gained advantage in the governance and physical/environmental dimensions.

The local government of Marikina has exhibited its commitment in preserving the quality of its human and physical resource through the formulation and implementation of innovative policies and programs.

1. LUCENA CITY

2. DAVAO CITY

3. PUERTO PRINCESA

4. OLONGAPO CITY

5. MARIKINA CITY

Davao City ranked second most livable due to its relative second rank in terms of social dimension, third in terms of physical dimension, and performed fairly in both governance (11th) and economic (16th) dimensions.

The City of Olongapo is governed independently from the province of Zambales, now recognized as a 1st class highly urbanized city. It gained positive scores in all the dimensions specified in the study.

SOURCES OF INFORMATION:

mindanaotimes.com, lucena.gov.ph, palawandailynews.com, wikipedia.org, codatu.org

LIVEABILITY



BGC, Taguig City



Rockwell Center, Makati City



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LIVEABILITY



Greenbelt Ayala Center, Makati City



Iloilo City

MOST LIVEABLE CITIES



Singapore City-State



Auckland City, New Zealand



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MOST LIVEABLE CITIES



Adelaide City, &
Sydney City, Australia



Zürich City, Switzerland



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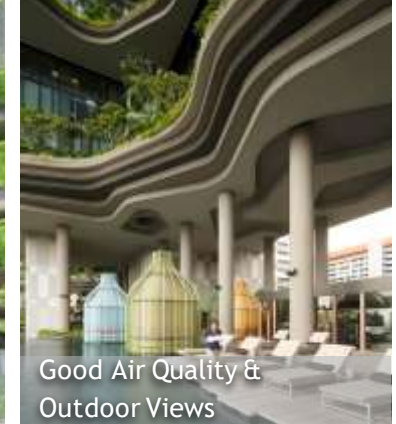


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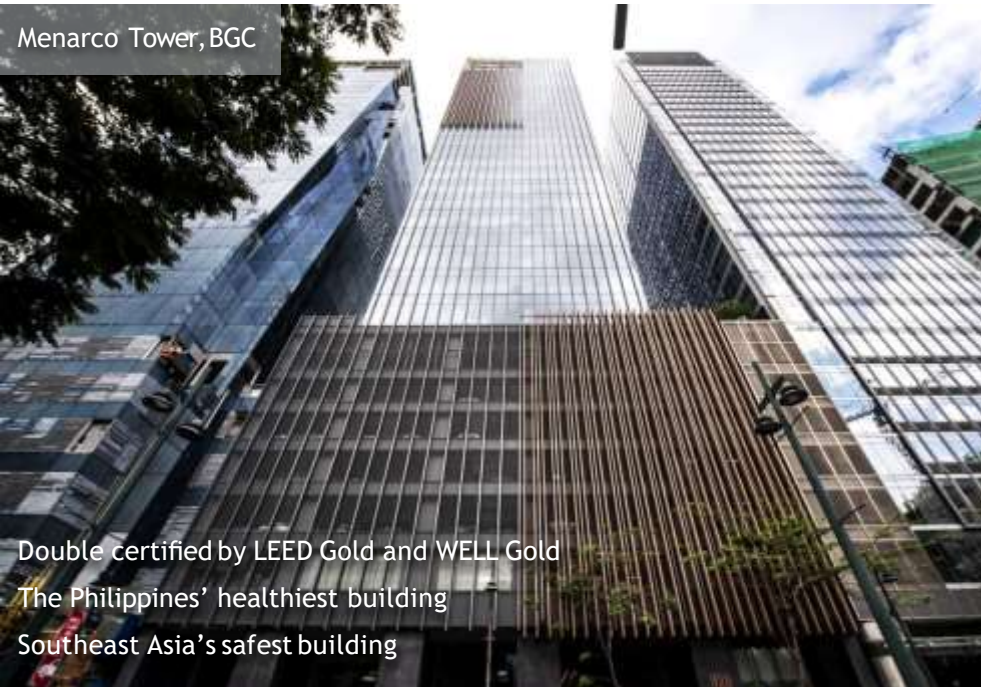


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LIVEABLE BUILDINGS



LIVEABLE BUILDINGS



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CRITERIA FOR LIVEABILITY OF CITIES

STABILITY

HEALTHCARE

EDUCATION

CULTURE

ENVIRONMENT

SOURCE:
The Economist Intelligence Unit (EIU)



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GREEN BUILDING FRAMEWORK

from

The Philippine Green Building Council:
Building for Ecologically Responsive Design
Excellence (BERDE)

CALL TO ACTION

URBAN DESIGN CHARACTER

LEGISLATION (NATIONAL)

TAX INCENTIVES ARCHITECT'S OR PLANNER'S STAND

LGU ordinances SENSE OF PLACEMAKING
(CITY/MUNICIPAL LEVEL)

EMBODIMENT IN CULTURE

PUBLIC RESPONSIBILITY



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INDOOR ENVIRONMENT QUALITY

DAYLIGHT AND
OUTDOOR VIEWS
ACCESS **thermal comfort**

VISUAL COMFORT

acoustic comfort **LOW VOC**
indoor air quality **ENVIRONMENT**

Microbial Contamination Prevention



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TRANSPORTATION

Key Establishments Proximity
Cyclists and Pedestrians Amenities
Preferred Parking
MASS TRANSPORTATION ACCESS



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GREEN MATERIALS

GREEN PROCUREMENTS Local Materials



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USE OF LAND AND ECOLOGY

Land Reuse

**VEGETATED
OPEN SPACES
PROMOTION**

**Ecological Features
Improvement**

Heat Island Reduction

MANAGEMENT & WASTE MANAGEMENT

Green Building Professional
CERTIFIED GREEN BUILDING
STAKEHOLDER CONSULTATION
Project Management
WASTE MANAGEMENT



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ENERGY EFFICIENCY AND CONSERVATION

**RENEWABLE
ENERGY
SOURCE**

**Energy
Consumption
Reduction**



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WATER EFFICIENCY AND CONSERVATION

**WATER
CONSUMPTION
REDUCTION**
Rainwater Collection Grayway Reuse



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EMISSIONS

Greenhouse Gas Inventory

REFRIGERANTS



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GREEN BUILDING FRAMEWORK



Management



Collaborative and Integrated Management Processes



Use of Land and Ecology



Mindful use of land with reduced negative impacts



Energy Efficiency and Conservation



Reduction of total energy consumption and the use of renewable energy

SOURCE:
Philippine Green Building Council: Building for Ecologically Responsive Design Excellence

GREEN BUILDING FRAMEWORK



Water Efficiency and Conservation



Grey water reuse and rainwater harvesting systems



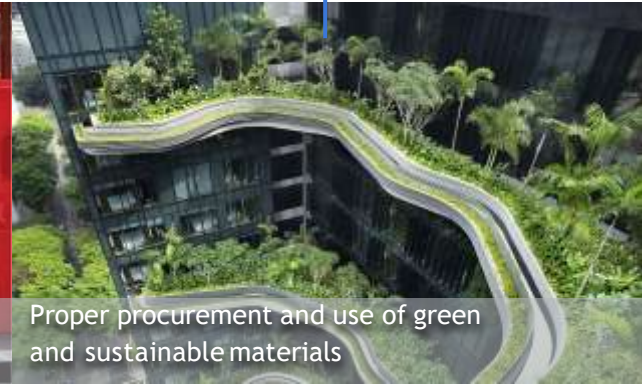
Waste Management



Effective Solid Waste Management



Green Materials



Proper procurement and use of green and sustainable materials

GREEN BUILDING FRAMEWORK



Transportation



Sustainable transportation strategies



Indoor Environment Quality



Building on an individual's health, wellbeing, productivity, and comfort



Emissions



Identifying, planning, and managing towards the reduction of emissions

GREEN BUILDING ELECTIVES



Employment and
Economic
Opportunities



Education and Skills
Development



Health and Safety



Equality



Community Engagement
and Benefit

DIFFICULTIES IN URBAN AND RURAL LIVING



DIFFICULTIES IN URBAN AND RURAL LIVING





SUSTAINABLE DEVELOPMENT GOALS



SOURCE:
United Nations: 17 Sustainable Development Goals

OUR GOAL FOR THE FUTURE

PEOPLE
HEALTH AND work-life balance
WELLNESS **FUTURE**
EFFICIENCY **EFFECTIVITY**
children **COMMUNITY**



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Thank you!



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