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## Cases bridging science-based policymaking with implementation: Case 2: KL, Malaysia

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Junichi FUJINO and Ryoko NAKANO (IGES)

22/Aug/2023

# Political Commitment to Local Climate Actions in KL at COP24, 2018



Dec 2018

Former Mayor of  
Kuala Lumpur (KL)  
(DG at that time)



# AIM analysis supported to develop KL Low Carbon Plan

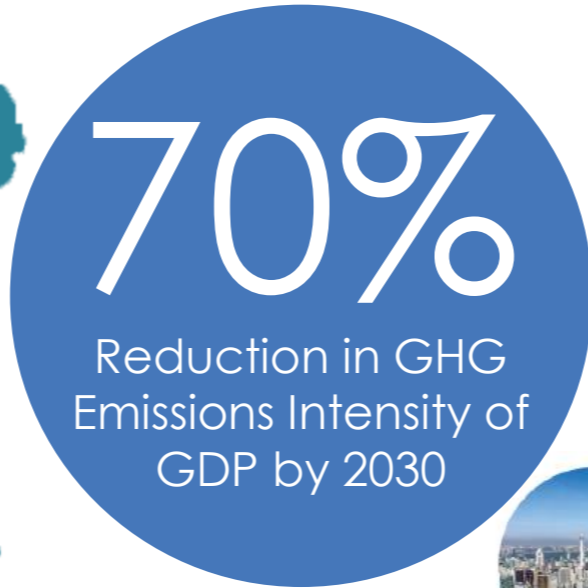


## Low Carbon Society 2030 – Better and Greener Kuala Lumpur 70 by 30



**Kuala Lumpur**  
national capital of Malaysia

242 km<sup>2</sup>  
1.67 million people (2010)  
2.49 million people (2030)



2016-2017



# IGES asked Tokyo Metropolitan Government to support Kuala Lumpur City Hall -> Tokyo to KL Low Carbon System (T2KLLCS)



Aug 2019

**Tokyo Metropolitan Govt (TMG):** The capital of Japan and the inventor of the first city based **Cap-and-Trade Program** for emissions from **buildings**

+ **Kuala Lumpur City Hall (KL):** The capital of Malaysia; announced **low carbon plan to reduce by 2030** carbon emission intensity of GDP by **70%** (national target **45%**)

Supported by IGES and Malaysian institutions

Aug. 2019  
Kickoff mtg @  
KL City Hall

TOKYO TO KUALA LUMPUR  
**LOW CARBON SYSTEM**  
( T2KLLCS )



Datuk Mahadi  
**Mayor** of KL  
since Oct 2020,



Mr. Ogawa  
Senior Director,  
TMG

TMG's **know-how on energy efficiency and renewable energy** in around **4200 public buildings** is transferred to **KL** for around **2000 public buildings**. KL has decided to prepare **her own budget to retrofit several main public buildings** in FY2021 based on **data analysis**. The city has announced its target to become **carbon neutral by 2050**.

MOEJ City to city collaboration for a zero-carbon society

# AIM model showed KL zero carbon scenario 2050

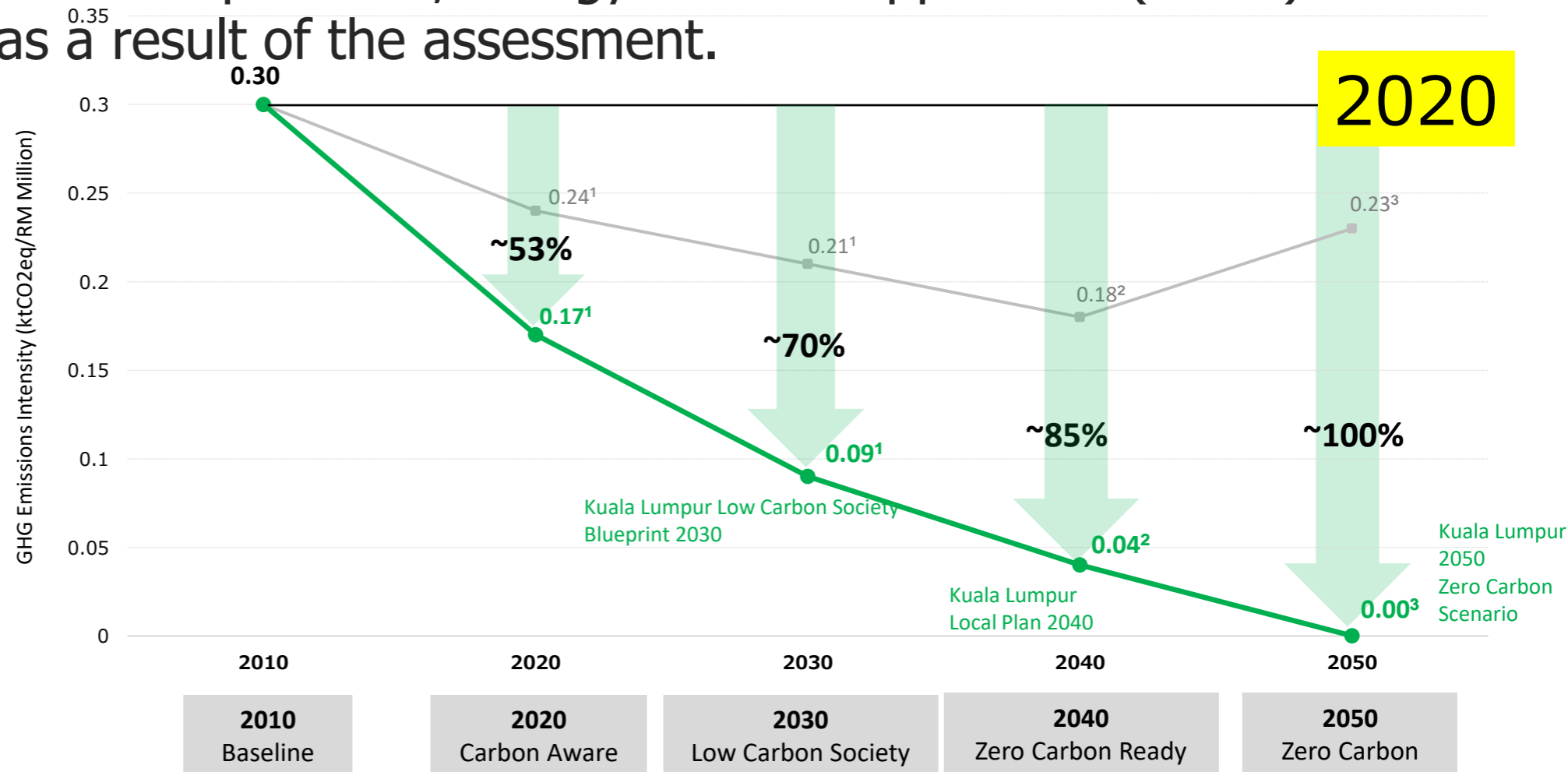


The zero carbon scenario 2050 was developed based on KL city's masterplan "Kuala Lumpur Structure Plan 2040". The importance of the commercial sector, and the policies with positive reduction potential, energy efficient appliances (HVAC) and PV (solar), were clarified as a result of the assessment.

AIM model showed that KL can achieve zero carbon by 2050



KL becomes first capital city in ASEAN to declare **carbon neutral by 2050**



Source:

<sup>1</sup>Kuala Lumpur Low Carbon Society Blueprint 2030 (2016) – inclusive of non-energy related GHG emissions (waste and carbon sink)

<sup>2</sup>Draft Kuala Lumpur Local Plan 2040 (2020) – inclusive of non-energy related GHG emissions (waste and carbon sink)

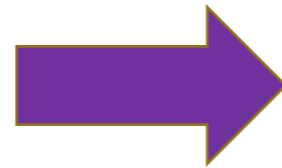
<sup>3</sup>Kuala Lumpur 2050 Zero Carbon Scenario (2021) – mainly energy related GHG emissions

# KL city hall prepared own budget to conduct energy retrofitting to her public buildings



Prepared a five-year plan for the renovation of municipal facilities with high-efficiency equipment and photovoltaic installations. The budget was partially secured

2020



led to the idea of a carbon neutral growth center and a multi-year budget

## Proposed budget for 2021-2025 building retrofits

DBKL RE AND EE PROJECTS BUDGETTING AND IMPLEMENTATION STATUS (2021-2025)

No.	Proposed Projects	Implementation Year	Project Status	Estimated Cost (MYR)	Budget Status
<b>A. Solar PV Installation</b>					
1	Sentul Perdana Community Centre	2022/2023	Tentatively planned to go under SELCO schemes	200,000	To be advised
2	Ampang Hilir Hall and Community Centre			200,000	
3	Kuala Lumpur Wholesale Market			200,000	
4	Bandar Tun Razak Commercial Centre			200,000	
5	Kuala Lumpur City Hall Training Centre (IDB)			200,000	
6	Kuala Lumpur Public Library			200,000	
7	Titivangsa Takraw Stadium			200,000	
8	Pudu Ulu Recreational Park			200,000	
9	Jalan Jujur Hawker Centre	2021	Project commenced in 2021	106,800	
10	TTDI Public Library	2021	TNB SARE (Supply Agreement with Renewable Energy - 21 years' agreement)	Zero CAPEX	No budget required
11	TTDI Community Centre				
12	Bangsar Sports Complex				
13	Selayang Daily Market				
14	Kg Baru Salak Selatan Market and Hawker Centre				
15	TTDI Market				
16	Keramat Mall Commercial Building				
17	Taman Botani Multistorey Parking (TBC)				
18	Taman Metropolitan Kepong Multistorey Parking (TBC)				
<b>B. M&amp;E Projects</b>					
19	AHU Menara 1	2021	Tendering process (Sep-Oct 2021) Project Kick-off scheduled for Nov/Dec 2021	8,000,000	Additional budget request approved
20	VRV for Air-conditioning System @ IDB Bandar Tun Razak	2021	Tendering process (Sep-Oct 2021) Project Kick-off scheduled for Nov/Dec 2021	2,400,000	Additional budget request approved
	Chiller, Pump, Cooling Tower & AHU for Menara 1-		Tendering process		



# KL city hall conducted installation of solar PV on public buildings



## Plans to install solar PV on public Buildings

➤ **Installation completed for 4 locations**

- PUDU ULU RECREATIONAL PARK
- TAMAN BOTANI PERDANA
- HAWKER CENTRE JALAN JUJUR
- SKY ARENA SPORT CENTRE



2022



C40 Bloomberg  
Philanthropy Award



C40 Bloomberg Philanthropy Award Ceremony  
@ Buenos Aires

## Cleaning the Air We Breathe

Winners: Beijing, Pune

## Accelerating Immediate Action in Critical Sectors

Winners: Addis Ababa, Amsterdam

## Building Climate Resilience

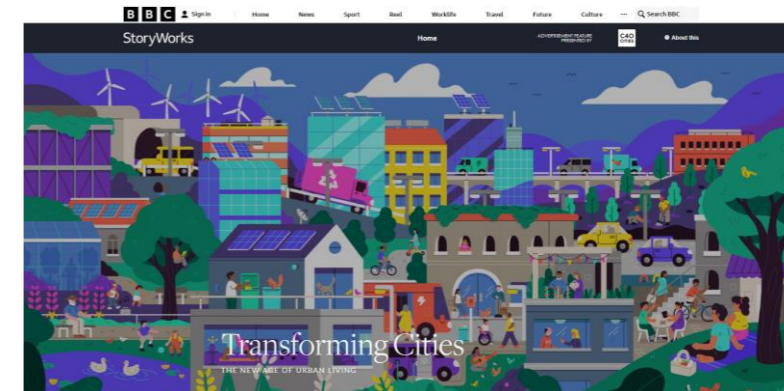
Winners: Dhaka North, Metropolitan Area of Guadalajara

## Innovative Climate Solutions

Winners: Freetown, São Paulo

## Building a Climate Movement

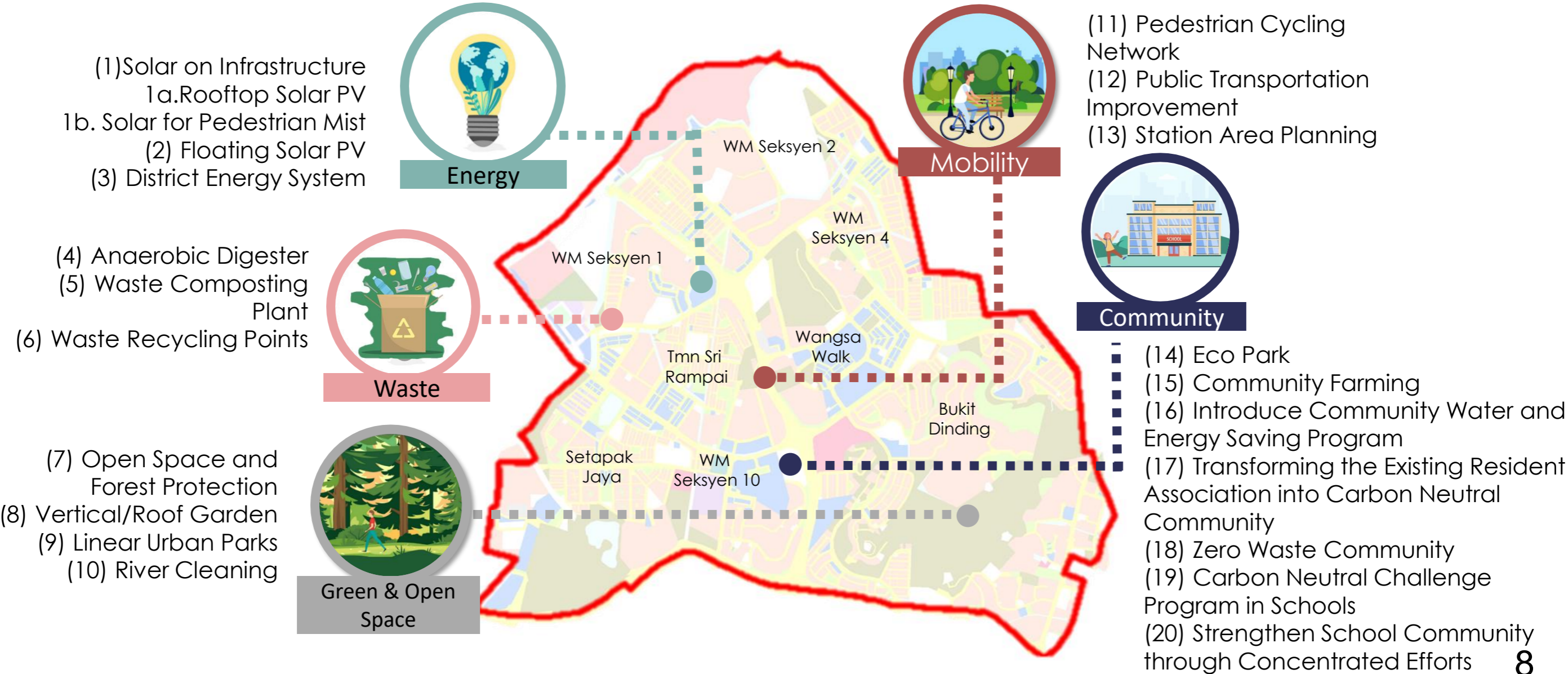
Winners: Seattle, Tokyo / Kuala Lumpur



BBC Storyworks – Transforming Cities



## The private sector in the district also participated in the discussions on specific initiatives.



# IGES asked Saitama city to join Phase 2 (FY2021-2023) of MOEJ city-to-city project



## Tokyo Metropolitan Government (TMG)

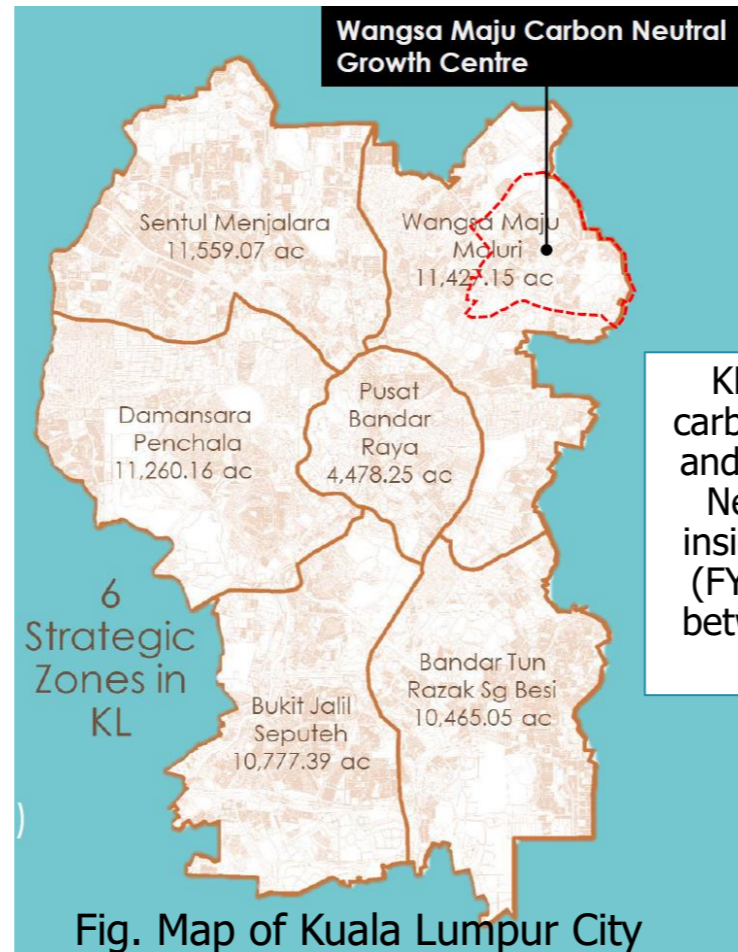
Support KL for sustainable policies and buildings ("Zero emission Tokyo Strategy" (by 2050), "Carbon Half" (by 2030) at whole city level

## Saitama City Hall (Saitama)

Support KL for sustainable energy management (Misono "Smart Home Community"), sustainable mobility ("Shared Multi-Mobility") at neighbourhood level

**Takasago, Open Street**  
Private sector

**IGES:**  
Main coordinator



## Kuala Lumpur City Hall (KL)

Streamline and enhance zero emission policies, ways to develop a zero emission neighborhood

KL city mayor declared carbon neutral city by 2050 and "Wangsa Maju Carbon Neutral Growth Centre" inside KL through "Phase1 (FY2019-2021)" activities between KL and TMG with IGES, UTM, SEDA

**SEDA (Sustainable Energy Development Authority):**  
Public sector: energy management and policies

**FY2022-2024**

**Universiti Teknologi Malaysia:**  
Local coordinator

MOEJ city-to-city collaboration project towards zero carbon during 2021-2023 [Phase 2]

- 1 year: Introduce CN measures of TMG (city-wide) and Saitama (neighborhood etc.), early implementation with KL City Hall's budget.
- 2 year: Support localization of the introduced policies, mechanisms, of which some will be tested in the "Wangsa Maju Carbon Neutral Growth Center"
- 3 year: Action plan for "Wangsa Maju Carbon Neutral Growth Center" will be incorporated into concrete project proposals and support is offered for KL city wide decarbonization and to other cities.

# Saitama city organized E-Kizuna Global Summit (Nov 22-24<sup>th</sup>, 2022)



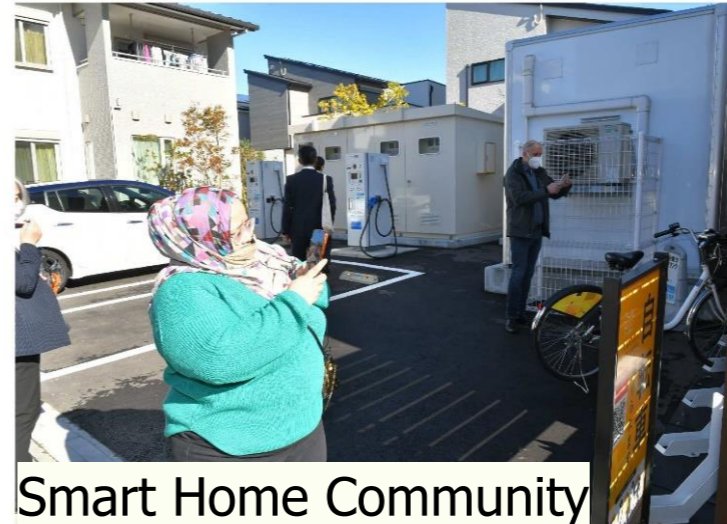
Two officials from KL visited Saitama to participate in the E-Kizuna Global Summit.

And also to visit the site of the smart home community and see for themselves how they can adapt to KL.

Nov 2022



With the Saitama Mayor@ E-Kizuna Global Summit



Smart Home Community



Fuel cell bus



Networking with ICLEI HQ



Bonsai garden

# Mayor of Saitama city has just visited KL for further collaboration (Aug 8<sup>th</sup>, 2023)

Aug 2023



This webinar was held in a hybrid format connecting the venue in the Kuala Lumpur City Hall and online participants. Approximately 250 participants in total attended the seminar. In the session, KL City, TMG, Saitama City, SEDA, Japanese Embassy, JICA Malaysia, JETRO Kuala Lumpur, JACTIM talked about the high commitment for carbon neutrality and opportunities for collaboration.



Detailed information of "High level talks seminar":

All presentations: <https://www.iges.or.jp/en/events/20230808>

JETRO News: <https://www.jetro.go.jp/biznews/2023/08/1421c4acb04dab2d.html> (in Japanese)

New KL Mayor and Mayor Shimizu in KL