

Kuala Lumpur, Malaysia

Population	1.8 million
Size	243 km ²
GHG Profile	16,963,369 tCO ₂ e total or 9.58 tCO ₂ e per capita in 2022
High-emission sectors	Energy & Buildings (78%) Transport (19%) Waste (2%)



From Planning to Implementation

Kuala Lumpur is advancing its Climate Action Plan, as energy use in buildings—responsible for 78% of emissions—remains a critical challenge. In the absence of national mandates for retrofits, the city is leading by example, introducing tools and standards to steer development toward sustainability and improve energy performance. The **Urban Climate Action Programme – Climate Action Implementation (UCAP CAI)** is supporting long-term change by aligning local policies with climate goals, strengthening institutional capacity, and **embedding Inclusive Climate Action** into planning and decision-making. Likewise, private sector engagement is shaping a **shared vision for net zero buildings**.



Energy & Buildings

Integrating Low-Carbon Standards into New Buildings and Renovations

Embeds stringent sustainability requirements into building approvals.

- **Low Carbon Building Checklist officially launched and trialled** via DBKL's planning submission portal, with public feedback enhancing the calculator's functionality. The LCBC is a key step for Kuala Lumpur in adopting stricter green building standards.
- **Technical guide and calculator tool finalised and deployed**, enabling developers and city officials to consistently verify compliance, simplifying integration into planning processes and ensuring reliable emissions reporting.
- **Checklist in the process of being incorporated into DBKL's formal legislative agenda** for mandatory implementation, demonstrating political commitment and aligning city legislation with climate goals.



Energy & Buildings

Advancing Energy Efficiency and Renewables for Near Zero Carbon Buildings

Identifies policy and financial pathways to scale energy efficiency and renewable energy adoption.

- **Net Zero Carbon Emission Buildings Roadmap development underway**, aligning stakeholders around shared goals and strategies for emissions reduction across the building sector by 2050.
- **Energy equity and preliminary gap assessments underway**, integrating Inclusive Climate Action considerations into roadmap development, ensuring equitable outcomes and broader societal buy-in for sustainable buildings.
- **Alignment of NZCEB roadmap with KL's CAP 2050 underway**, embedding strategic long-term emissions reduction targets within existing city-wide climate goals.



Climate Mainstreaming

Climate Mainstreaming and Inclusive Climate Action

Supports integration of Inclusive Climate Action principles into Kuala Lumpur's governance, budgeting, and decision-making processes, ensuring equitable and sustainable climate outcomes city-wide.

- **Inclusive Climate Action Training modules, Checklist and Institutionalisation Strategy developed and tested with different departments**, ensuring that city staff are equipped to embed equity considerations into municipal decision-making.
- **Regular ICA training formally integrated into DBKL's city-wide training calendar** – Embedding ICA into routine city operations, enhancing officials' capacity to systematically address equity and inclusivity in climate planning.
- **Regular Greenhouse Gas Inventory updates institutionalised**, positioning the city for effective project-level emissions accounting by late 2024, significantly enhancing accuracy, accountability, and climate finance readiness.

KL's Data Driven Path to Slashing Emissions

Buildings are the 2nd largest contributor to GHG emissions in KL, so **UCAP CAI** programme is collaborating to address this via the creation of a user-friendly technical guide to implement a **new Low Carbon Building Checklist**, reinforcing the adaptation of buildings to green regulation, reducing energy consumption and the impacts of extreme heat. The LCBC Technical Guide was **launched on June 1st 2024**, requiring developers to utilise it as a foundation to **incorporate low carbon design and features into project plans**. Its **carbon emissions calculator** can help KL collect actual data on **GHG emissions data** for monitoring and reduction, as well as benefit research on the checklist's adoption.



Figure 1: Low Carbon Building Checklist internal training held in Kuala Lumpur

If all new buildings and major retrofits were following the Building Code from 2025 onwards, by 2030 this could*:

Reduce electricity consumption and costs in the new buildings by **13 to 46%**

Reduce electricity consumption in the city by **2%**

Avoid **210,260 to 300,770 tCO₂ emissions** (2% of buildings' emissions).

Supported by UK government funding (2022–2025), the Urban Climate Action Programme – Climate Action Implementation (UCAP CAI) accelerates progress against the delivery of Climate Action Plans (CAPs) in 15 Global South cities, in line with the Paris Agreement's 1.5°C target.

UCAP CAI Cities: Accra - Addis Ababa - Dar Es Salaam - Johannesburg - Lagos - Nairobi - Tshwane - Bogota - Guadalajara - Lima - Medellin - Mexico City - Jakarta - **Kuala Lumpur** - Quezon City

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For more information, contact osaracho@c40.org, and visit our webpage [here!](#)



Climate Action
Implementation

