

# ASIA LOW CARBON BUILDINGS TRANSITION

Life Cycle Assessment for Transitioning to a Low-Carbon Economy

## PROJECT KERALA INDIA



<b>Project Location:</b>	Asia / India
<b>Project Period:</b>	August 2023 ~ August 2028
<b>Project Funding India:</b>	EUR 17.98 Mn (India: EUR 4.61 Mn)
<b>Theme:</b>	Green Investment, Climate Action, Green Buildings, Policy
<b>Project Code:</b>	ROA035

### Project Summary

India experiences different climatic conditions throughout the year, resulting in different energy usage patterns across the buildings sector throughout the year.

In line with the Government of India's objectives to decarbonize the buildings sector, the Asia Low Carbon Buildings Transition (ALCBT) Project will assess the embodied and operational carbon and mainstream Energy Conservation Building Code (ECBC) in buildings. It will also develop a comprehensive building registry of 400 buildings to identify low-carbon building pilots in Kerala. The 16 selected buildings will be retrofitted with energy-efficient and natural refrigerant-based air conditioners. The project will enhance the capacity of more than 1320 government officials, industry, building experts, energy auditors, ESCOs, banks & financial institutions and mobilize finance to facilitate the low-carbon transition pathway in India.

### Project Goal and Objectives

The project aims to ensure nationwide transition towards Low Carbon Buildings (LCBs) through successful implementation of technical, planning, and institutional tools for LCB which are streamlined by key public and private sector stakeholders resulting in direct emissions reduction by 2028.

#### Consortium Partners

Lead:



#### State Government Partners



#### Resource Partners

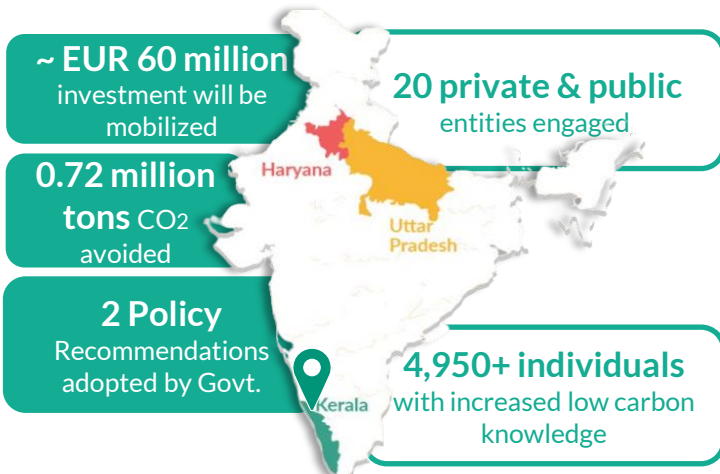
Supported by:



#### Nodal Ministry



on the basis of a decision by the German Bundestag



The project is being implemented in Kerala, Haryana and Uttar Pradesh under the guidance of Ministry of Housing and Urban Affairs, Government of India

## Kerala Chapter

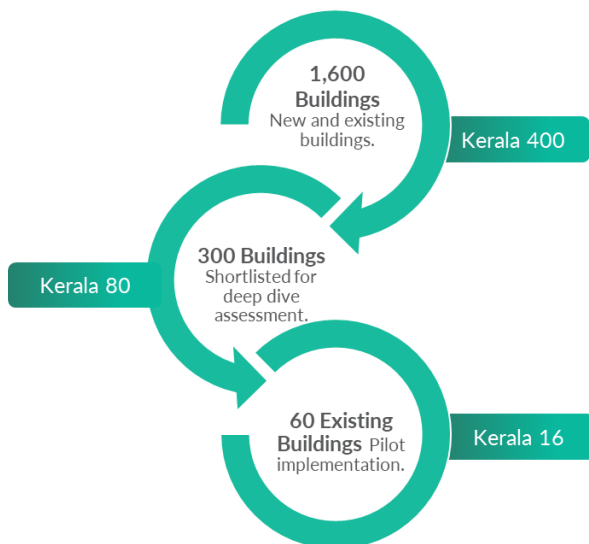
India accounts for the largest increase in peak electricity load in the world, mostly due to cooling demand. Commercial and residential buildings are estimated to consume around 850 Billion KWh by 2030, and this demand may increase further. 70% of India's building infrastructure in 2030 is yet to be built, this creates a potential for substantial reduction in the amount of carbon emissions. The Government of India, through initiatives under the India Cooling Action Plan (ICAP) aims for the reduction of the cooling demand and implement necessary building codes across the state,

**Kerala** experiences a tropical monsoon climate, characterized by warm and humid conditions throughout the year, These climatic conditions, along with high rainfall, influence energy consumption patterns in buildings, particularly through the demand for cooling. Additionally, the rapid urbanization occurring in the state is directly contributing to the increasing demand for residential, commercial, and institutional infrastructure, necessitating a transition towards low-carbon buildings (LCBs).

Global Green Growth Institute (GGGI) under the Indo-German Bilateral Agreement is leading the implementation of the ALCBT project across the three states of India. Together with Energy Efficiency Services Limited (EESL) and the **Energy Management Center (EMC)** the project is being implemented in Kerala.

## Buildings Registry

The project will develop a database or registry for 1,600 new and existing commercial and residential buildings based of which 400 will be chosen from Kerala.



Learn more at [www.alcvt.gggi.org](http://www.alcvt.gggi.org)

#AsiaLowCarbonBuildings  
#IndiaTowardsLCBT  
#LowCarbonHighComfort

## Project Outcomes in Kerala

By 2028, technical, planning, and institutional tools for LCB will be developed and successfully implemented by key public and private sector stakeholders in India.

**0.18 mt of CO<sub>2</sub>**  
Emission Reductions



**4 Private & Public entities**  
incorporating LCB tools, training programs



**~1 policy recommendations**  
will be adopted by governments



**~ EUR 16 million**  
approximately investment will be mobilized



**16 buildings**  
will be assessed, registered,  
piloted with natural refrigerants



**1320+ individuals**  
with increased low carbon  
knowledge



MoU Signing Ceremony between Energy Efficiency Services Limited (EESL) - left, EMC Kerala - middle, and Global Green Growth Institute (GGGI) - right



Launch of ALCBT Project at the IEFK, February 9, 2024

[www.gggi.org](http://www.gggi.org)

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