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ALCBT Project Towards Zero Carbon Buildings in Asia

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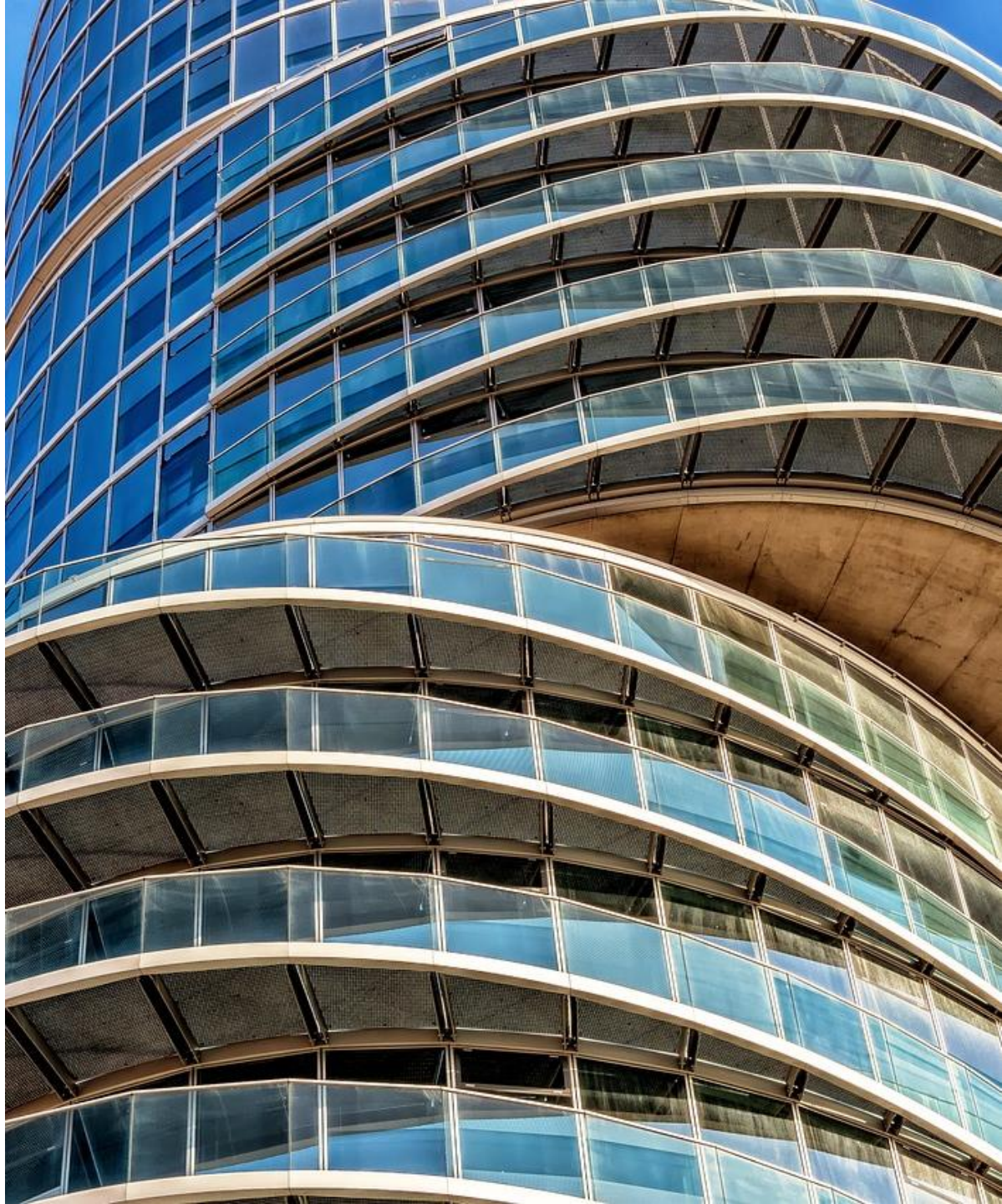
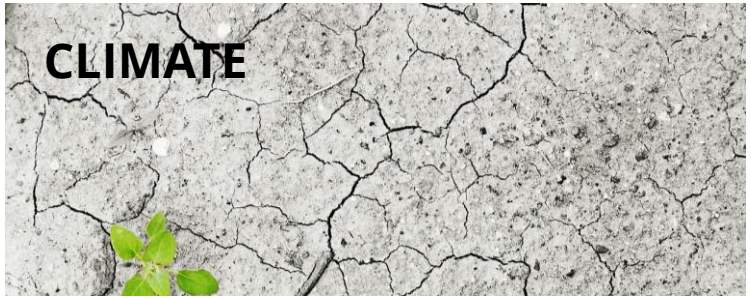


HEAT ACTIVITY AREA



- NDC / LEDS
- MRV/ M&E
- CARBON FOOTPRINT
- INDUSTRY/LCA
- CLIMATE FINANCE/ ART 6
- CLIMATE NEGOTIATIONS

- MONTREAL PROTOCOL
- REFRIGERANTS
- AIR CONDITIONING / HEAT PUMPS
- APPLIANCE ENERGY EFFICIENCY
- LOW CARBON BUILDINGS

- E-MOBILITY
  - LOW EMISSION STRATEGIES
  - PLANNING AND FEASIBILITY (Vehicles, infrastructure, logistics, Green shipping)
- SUSTAINABLE URBAN MOBILITY PLANS (SUMPS)

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Supported by:

Federal Ministry for Economic Affairs and Climate Action

IKI INTERNATIONAL CLIMATE INITIATIVE

on the basis of a decision by the German Bundestag

IKI ALCBT

- The Asia Low Carbon Building Transition (ALCBT) project aims to accelerate the transition to low-carbon buildings in Asia, focusing on reducing both embodied and operational carbon emissions. The project's key focus is on transforming the building sector to align with national and international climate goals, as well as developing and customizing tools to manage and measure carbon emissions in buildings.
- 5 countries Cambodia, India, Indonesia, Thailand, and Vietnam
- Consortium of Global Green Growth Institute (GGGI), Asia Centre of Energy (ACE), Energy Efficiency Services Limited (EESL) and HEAT
- Timeline: 2023-2028
- ALCBT Brochure

GGGI ASEAN CENTRE FOR ENERGY ACE EESL HEAT

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ALCBT: ADRESSING CHALLENGES

Improving Energy Efficiency remains a key focus in terms of policies to decarbonize buildings (i.e., reducing operational carbon). **However, the key issue that HEAT International will tackle in ALCBT is embodied carbon in buildings.**

Embodied Carbon: Some Challenges

- Lack of Awareness in Government institutions of embodied carbon
- Lack of consistent datasets for buildings (EPDs, PCRs,)
- Lack of clarity (guidelines, policies, knowledge) leading to a lack of financial incentives for low carbon buildings
- Lack of building codes which have integrated embodied carbon / whole building LCA
- Lack of mechanisms/tools to monitor decarbonization of buildings (MRV)
- Embodied carbon/LCA is not used in public procurement.
- Lack of easily accessible tool for whole building LCAs
- Lack of embodied carbon/LCA metrics in long-term decarbonization plans of targeted countries (i.e., NDCs, LEDS)
- Complexity of whole building LCAs *(goal, scope, data variance, databases, cut-off rules)*

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HEAT DELIVERABLES

NDC, MRV AND MITIGATION

- Emission scenarios
- Targets for NDCs
- MRV

LCA TOOL

- LCA Software for embodied carbon of buildings
- Database for all 5 countries
- Establishment of thresholds for GPP and finance (taxonomy)

POLICY INTEGRATION AND FINANCE TOOLS

- Collaboration with banks and IFC for financing
- Green Public Procurement Standards

CAPACITY BUILDING

- Comprehensive training for use of developed MRV and LCA tools for policy makers, practitioners, universities

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ALCBT: 5 Step Approach

To address regulatory, capacity and financing gaps that prevent large scale adoption of LCB

STEP 1
Development of LCA Tool

STEP 2
Customised LCA Tool

STEP 3
Enshrine building LCA in Government Policies

STEP 4
Training and Pilot projects

STEP 5
Finance

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ALCBT: BY THE NUMBERS

Assessment of Embodied Carbon in buildings

- **1200 new buildings** assessed and registered with LCA model
- **5000 existing buildings** assessed using available data
- **100 existing buildings** retrofitted

Training

- **120 Public Officials trained and using** the developed Methods/Tool.
- **4´900 industry professionals** trained on the developed Methods/Tool. *(600 by HEAT)*
- **9 Universities** incorporate sustainable cooling and low carbon building principles with syllabus

Capacity Building + pilots

- **54 entities** offer novel EE products and services on sustainable cooling
- **10´000 people targeted** through capacity-building events

Financing

- **20** financial institutions apply the ALCBT low-carbon building taxonomy
- **80 institutions** (e.g., private sector) sensitized to innovative financing mechanisms and business model
- **10 public authorities** adopt low carbon standards for GPP

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THANKS

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