

ASIA LOW CARBON BUILDINGS TRANSITION

Life Cycle Assessment for Transitioning to a Low-Carbon Economy | **PROJECT**

Project Location:	Asia / Cambodia, India, Indonesia, Thailand, Viet Nam
Project Period:	August 2023 ~ August 2028
Project Funding:	EUR 19.3 million
Theme:	Green Buildings, Green Investment, Climate Action and Sustainable Energy

Project Summary

The Asia Low Carbon Buildings (ALCBT) Project seeks to significantly reduce GHG emissions by catalyzing nationwide transitions towards low carbon buildings (LCB) in Asian countries. The project addresses the regulatory, capacity, and financing gaps that prevent LCB from scaling, and contribute to national GHG emission reduction targets from building materials and operations, with a particular focus on cooling.

Project Goal

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

Outputs:

01. Standardized tools & systems

Governments equipped to monitor building carbon performance, enforce compliance with regulations and enable data-driven decision-making.

03. Financial pathways

Innovative technical solutions and business models, green finance networks (GFNs), and matchmaking platform unlock investment for LCB.

02. Enhanced technical capacity

Key public and private stakeholders (e.g., architects, engineers, contractors, banks, ESCOs) are trained to design, deliver and verify LCB and universities integrate LCB in their syllabus.

04. Replication and scaling up

Lessons, tools, and approaches are shared systematically between project countries and beyond to build market demand.

Implementing Partners

Lead



Resource Partners

Supported by:



Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety



INTERNATIONAL CLIMATE INITIATIVE

based on a decision of the German Bundestag

Outcomes:

1.67 tCO₂eq
GHG emission reductions

51 entities
incorporating LCB tools and training

EUR 140 million
investment mobilized

8 policy recommendations
adopted

Key Beneficiaries



Tools and Platforms

For Governments & Policymakers | Urban planners | Researchers | Donors & Investors | Architects & Engineers | Academia & Civil Society

BEAT

Building Emission Assessment Tool – a web-based platform for assessing whole-life carbon emissions in buildings.

ASEAN BUILT

A regional one-stop-shop platform connecting energy-efficient building projects with financing and expertise.

MRV Tool

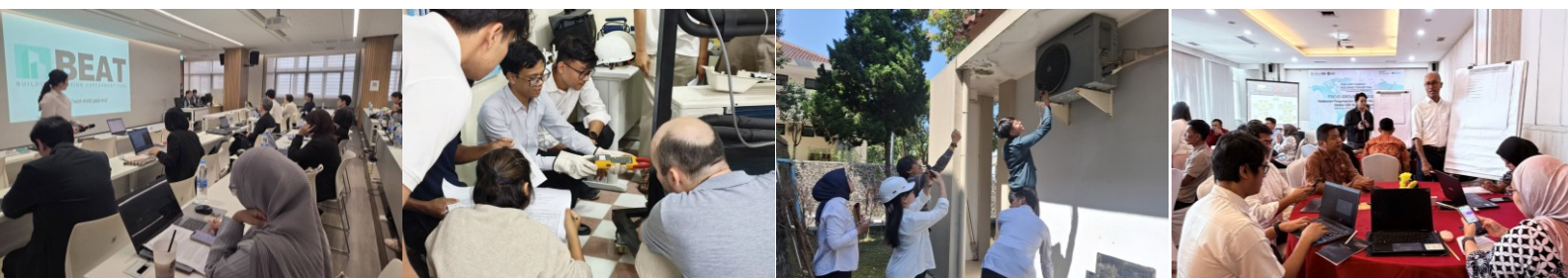
Digital MRV platform for tracking building-sector emissions and modelling policy scenarios to 2070.

LCB Training Modules

A structured capacity-building program for building sector professionals, in English and local languages.



Access them at alcbt.gggi.org



Midterm progress and highlights

ALCBT in numbers

552 Buildings life-cycle assessment using BEAT	5,680 Beneficiaries reached (as of August 2026)	50+ Knowledge products produced	8 Policy recommendations
104 Expressions of interest from building owners for potential LCB investment	43 MoUs signed with building owners followed by 31 energy audits completed	10 Local institutions endorsing or integrating LCB training	77,000+ Project website views and downloads

Where the project stands at midterm

Standardized tools and systems

- BEAT launched in June 2025, used for buildings LCA and being institutionalized in Cambodia, India, Thailand. MRV tool developed in April 2026 and refined for building-level data and policy scenario modelling.
- India is integrating a customized BEAT into state building-permit processes. In Indonesia, the tool is under consideration for the National Building/Green Building Management Information System.
- Thailand Greenhouse Gas Management Organization contributing carbon footprints of products to national datasets for BEAT. Department of Climate Change and Environment expressed interest in hosting BEAT.
- Building registries, datasets and assessment systems are being strengthened across project countries to support more systematic building-level data collection and analysis.

Enhanced technical capacity

- 5,680 professionals benefited from LCB trainings, with at least 26% female participation (as of August 2026). Modules available in Bahasa, Khmer, and Thai.
- BEAT and MRV training modules have been updated, with additional technical training and government-focused capacity building continuing across project countries.
- University and curriculum integration is advancing through partnerships with institutions in Cambodia, India, Indonesia and Thailand, supporting longer-term institutionalization of LCB concepts.

Financial pathways

- A pipeline of ~100 buildings has been identified for investment across project countries through deep-dive assessments and call for expressions of interests.
- Bankable LCB pipeline development advancing across Cambodia, India, Indonesia, and Thailand, supported by technical assistance, facility audits and viability assessment to be investment-ready. Matchmaking initiatives are progressing through the Green Finance Networks and ASEAN BUILT (Building Investment for Low-Carbon Transition in ASEAN).
- Financing the Building Sector Decarbonization country reports published. The regional ALCBT financial model has been developed and demonstrated to support assessment of building projects and green financing opportunities. ESCO and on-bill financing readiness work advanced in Indonesia, Cambodia, Thailand.

Replication and scaling up

- Green Public Procurement (GPP) Guidelines for energy-efficient air conditioners developed at regional level and nationally in Cambodia, Indonesia, and Thailand.
- Building taxonomy work has progressed in India, Indonesia and Cambodia; and a regional blueprint has been developed, supporting broader policy and market adoption of low-carbon building approaches.
- Project inputs fed into Cambodia's draft Sustainable Finance Taxonomy and NDC 3.0 review, and India's draft Climate Finance Taxonomy.

Country highlights

Cambodia



- 250 buildings assessed, 20 buildings identified for LCB investment.
- Net Zero Building (NZB) scenario modelling and embodied-carbon policy recommendations completed, Green Building Scheme and LCB roadmap initiated.
- GFN launched with Association of Banks in Cambodia.
- 1 university integrating LCB into training program.
- 298 benefitted from LCB training.

India



- 302 buildings assessed, 60 buildings identified for LCB investment.
- Policy inputs to the Energy Conservation and Sustainability Building Code adopted in Sept. 2024.
- NZB scenario modelling and policy recommendations submitted.
- GFN India launched.
- 4 universities endorsed the integration of LCB concept in their syllabus.
- 3,844 benefitted from LCB training.

Indonesia



- Pilot city selection completed.
- 200 building assessment ongoing.
- NZB scenario modelling, embodied-carbon policy work advanced.
- LCB pipeline development initiated, with PT SMI.
- 4 universities expressed interest to integrate LCB concept in syllabus.
- 1,107 benefitted from LCB training.

Thailand



- 2,000 Thailand Greenhouse Gas Management Organization verified Carbon Footprint of Product data enriched BEAT database.
- 150 building assessment ongoing.
- 30 EoIs received in developing LCB pipeline, with 10 projects shortlisted GFN framework endorsed.
- 1 university integrating LCB in syllabus.
- 431 benefitted from LCB training.