



Sustainable Construction / Renewable Cooling

Vietnam – University Cooperation on Energy Efficiency in Buildings

Background

The Socialist Republic of Vietnam is one of the most economically dynamic countries in Southeast Asia. Economic growth is accelerating urbanisation and driving up demand for buildings. As a result, Vietnam's building sector has a very important role to play in improving energy efficiency. However, energy-efficient and sustainable construction is only implemented to a limited extent in Vietnam.

Building standards need to be further developed, and at the same time, skilled workers need to be trained to implement them accordingly.

However, these intentions are being thwarted by a fundamental shortage of skilled workers to enable the energy transition in Vietnam. In addition, the quality of education and the number of university graduates are not keeping pace with the rapid economic development of recent years and no longer meet Vietnam's current needs.

With the project "Vietnam – University Cooperation on Energy Efficiency in Buildings", the German Energy Agency (dena), as an experienced actor in the field of energy efficient construction, is supporting the country in increasing energy and resource efficiency in its domestic building sector.

Vietnam – University Cooperation on Energy Efficiency in Buildings

Project Objective

This project aims to enable Vietnamese universities to integrate energy-efficient building standards and sustainable construction practices into their curricula in the long term, hence contributing to reducing the construction/housing sector's climate impact and eventually promoting the green energy transition.



Project Structure

Key elements of this project are a block seminar on energy efficiency in buildings in cooperation with the Hanoi University of Civil Engineering (HUCE), a study tour for a selected group of students of the block seminar as well as a stakeholder workshop to sustainably anchor the topic within Vietnamese universities.

Block Seminar

Together, HUCE and dena will develop and implement an interdisciplinary and scalable block seminar in the field of energy efficiency in buildings. Students of architecture, urban studies and engineering are selected to participate, with gender parity taken into consideration. After completion of the block seminar, students will receive a certificate. The block seminar will cover the following topics, among others:

- Energy demands of buildings resulting from climatic conditions and local building construction techniques (traditional and modern),
- National and international best practice examples to increase energy efficiency and reduce resource consumption through circularity in construction.

Therefore, one of the learning goals is how to reduce a building's climate impact by lowering its energy consumption in tropical regions. Students will also examine strategies to improve energy efficiency in buildings throughout the entire building life cycle, both in the operation phase of a building as well as the embodied energy in the production of building materials and end-of-life use.

Study Tour

Students will participate in a competition during the block seminar. The winners will join a study trip to visit best practice examples of energy efficient buildings and learn about the practical implementation of local best practices in Vietnam.

Stakeholder Workshop

A stakeholder workshop will bring together decision makers to discuss results and how to anchor the topic within the Vietnamese university landscape. Furthermore, academics and actors in the field of energy efficiency in buildings, including private sector representatives, are invited to discuss the potential for replicability of the project in the region.

Outlook

- Sustainable construction, renewable energies and energy efficiency in buildings are recognised as essential for achieving Vietnam's climate targets
- The topics are an integral part of the Vietnamese university curriculum
- Graduates are trained to meet Vietnam's need of a skilled workforce

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