### VIETNAM LOW CARBON ENERGY EFFICIENCY PROJECT





# DENMARK BACKS VIETNAM'S ENERGY EFFI-CIENCY IMPROVEMENT

Vietnams developing economy is causing an increased energy consumption, which, combined with depleting energy resources and inefficient fuel combustion, is damaging to the local Vietnamese environment and contributing to global climate change. A project between Denmark and Vietnam will bring about Danish know-how and technology, which will support Vietnam in integrating environmental aspects in its economic growth, by enhancing energy efficiency.

The Danish Energy Agency is taking part in an energy efficiency project in Vietnam, which aims to lower greenhouse gas emissions through an efficient use of energy in Vietnam supplemented by increased use of renewable energy. The project is developed by the Danish Energy Agency, the Embassy of Denmark in Vietnam and the Government of Vietnam to support the Vietnam National Target Programme on Energy Conservation and Effinciency. Consisting of two components, the project focusses on energy efficiency in small and medium sized enterprises (SMEs) and provides support to the implementation of a building code for energy efficiency in new buildings. As a derived effect, the project also facilitates cooperation and exchange between Danish and Vietnamese businesses.

#### LOW CARBON ENERGY EFFICIENCY PROJECT

- Danish Vietnamese Government to Government cooperation
- Runs 2013 2015
- Budget 12 million USD

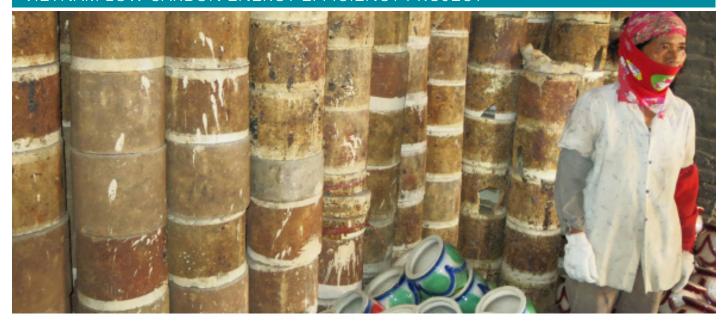
## A NEW FINANCING MECHANISM FOR SMALL AND MEDIUM SIZED ENTERPRISES

Part of the project in Vietnam focusses on the brick-ceramics- and food processing sector and the abilities of SMEs working in this area. A high level of energy efficiency has a considerable impact on the competitiveness of SMEs, as energy consumption makes up a large proportion of the enterprises' expenses. Small and medium businesses account for 45 pct. of the energy consumption in Vietnamese industries, constituting a large potential for energy efficiency improvements and greenhouse gas emission reductions.

Although there are lots of low-cost opportunities for Vietnamese energy efficiency improvements, most small and medium sized enterprises have difficulties financing the investments. To accommodate this, the project has developed an innovative financing mechanism, the Green Investment Facility (GIF), with a loan guarantee of up to 50 pct. of investment costs and a rebate scheme for successful projects. The GIF is operational since January 2015 and is funded by 6 million USD of seed money from the Danish



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Government. If the mechanism proves successful, it is expected to attract funding from other national and international sources.

#### RAISING ENERGY EFFICIENCY AWARENESS

The aim of the first project component is to share Danish knowledge on technology options for increased energy efficiency with the small and medium sized enterprises and their technology suppliers, as well as with national and local authorities. Through the practical implementation of several energy efficiency projects, the project will demonstrate how a concerted effort of small and medium sized enterprises, authorities, technology suppliers and the financial mechanism enable successful technology change, an increase in energy efficiency and a reduction in greenhouse gas emissions.

The project identifies technologies where a commercial partnership could be particularly relevant. It nurtures concrete energy efficiency partnerships between Vietnamese and Danish suppliers, as Danish technology suppliers possess the technical know-how and expertise needed to modernise Vietnamese SMEs.

## IMPLEMENTING THE BUILDING ENERGY EFFICIENCY CODE

The second project component spotlights the Vietnamese building sector. As most buildings have a lifespan of longer than 50 years, the accumulated annual sav¬ings from a new generation of more energy efficient buildings will be significant.

A newly adopted energy efficiency building code sets new minimum standards for all new buildings above a certain size. The Danish Energy Agency cooperates with the Vietnamese Ministry of Construction on implementation of the code. A large part of the support, for the implementation process, is sharing of know-how through coaching and

#### VIETNAM

- 90 million people
- Yearly growth rate of GDP 7 pct. (2000-2010)
- GHG emissions: 3.5 tCO<sub>2</sub>eq./capita
- Emissions intensity: 4.1 MtCO<sub>2</sub>eq/billion USD of GDP (IEA, 2010)

training, based on the extensive Danish experience in the field. The aim is to improve understanding of energy efficiency in general and the new code requirements in particular. This will support Vietnam in meeting the goal of compliance for all new buildings.

The project will also promote transfer of knowhow from Denmark to Vietnam, through a number of demonstration projects in planned constructions. The project will assist designers and construction companies in making sure that profitable possibilities for energy savings are utilised.

#### PARTNERSHIP FOR THE FUTURE

The project officially ends in December 2015, but the objective us that the cooperation between enterprises and authorities in the two countries may continue in a joint effort to increase the competitiveness of the Vietnamese economy, while at the same time reducing the impact on the environment.

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