

# SCALING UP LOW CARBON HOUSEHOLD TECHNOLOGIES IN THE LOWER MEKONG SUBREGION (DIAMOND) 2013–2015

## Finland Futures Research Centre

Location of the action: Cambodia, Lao PDR

Total costs of the project: 3 500 000 €

Funded by: Nordic Climate Facility

Length of the project: 1/2013–6/2015

Project partners: Nexus - Carbon for Development, Singapore; Hydrologic Social Enterprise, Cambodia; TerraClear, Lao PDR

The primary aim of the project is climate change mitigation and reduced deforestation through the provision of low cost water purification technologies to the rural poor. At the same time, the project will sustainably scale up, through carbon finance, the production and dissemination of low-cost clean water treatment solutions to poor households in Cambodia and Lao PDR. The local supply chains of the two carbon projects by Hydrologic Social Enterprise and TerraClear will be strengthened and the projects will be developed into Gold Standard projects for voluntary carbon markets (VCM). Targeted customers are rural households who currently have no or only a partial access to clean water. Ceramic water purifiers are able to provide a number of co-benefits to end users (including the adaptive capacity of end users to climate change) and throughout the supply chain. The project aims to ensure these co-benefits are also realised. The scaling up and sustainable mass dissemination activities will be complemented by a research report prepared by Finland Futures Research Centre (FFRC).



Turun yliopisto  
University of Turku



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The research conducted by FFRC focuses on the assessment, measurement and monitoring design of development impacts for household and community level energy projects in the Mekong region. Since more and more actors are shifting their gaze to carbon projects that produce development benefits and/or are located in the least developed countries, also the need for carbon projects to measure and demonstrate the claimed sustainable development impacts in a transparent manner has increased. Key factors for consideration in measuring development impacts will be derived from interviews with stakeholders, including project developers, donors, impact investors, end users of the technologies, and civil society.

In response to the negligible sustainable development impacts of the Clean Development Mechanism (CDM), the most significant carbon market in developing countries, a variety of new tools and carbon markets standards (such as Gold Standard) have been created with the aim of better assessing and valuing sustainable development benefits. There is, however, no overarching framework in the compliance of voluntary markets for measuring the development impacts of carbon projects. Fragmentation of measurement and monitoring approaches is conceivable as different actors pursue their own methods and standards.

Majority of the previous studies on sustainable development impacts of carbon projects have been portfolio analyses limited to analysing Project Design Documents (PDDs) without carrying out on-site sustainability analyses. Furthermore, there have been very limited number of comparative analyses between different indicator sets that measure sustainable development impact. Therefore the research conducted aims to move from the literature-based discussions to more empirical analyses of the sustainability of carbon projects. This will be done with an analysis of five case studies of household energy technology projects operating in Cambodia and Lao PDR. The data collected during the on-site visits will allow an assessment of the feasibility and relevance of certain chosen metrics and indicators and an evaluation of the extent to which these metrics and indicators capture different elements of sustainability in the project.



Contributors to the project:

FFRC

- Jyrki Luukkanen
- Kamilla Karhunmaa
- Visa Tuominen
- Outi Pitkänen

Nexus

- Jo Hazelwood

Hydrologic

- Rachel Pringle

TerraClear

- Nathan Cole