

The New Lao Stove (NLS): improved cooking stoves for improved lives

Cambodia

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Background Information

Cambodia is rich in natural resources; however, current energy needs are exhausting the resources available. Many households in Cambodia use wood for heat production and for cooking, which accounts for more than 80 percent of their daily energy needs. Using wood for cooking has been a traditional practice for centuries, but presently Cambodia's fuel-wood comes from the unsustainable and illegal logging of local forests. The situation is quite alarming taking into consideration the rapid population growth in the country which increases the need for fuel-wood drastically. In fact, FAO estimates that the deforestation rate in Cambodia is 2% and growing.

Cooking with wood and charcoal also has direct negative health impacts on the users, most of whom are women. Many related respiratory diseases have occurred due to indoor air pollution, and according to UNICEF, indoor air pollution, mostly from burning biomass for cooking and heating, kills 1.6 million women and children every year.

In order to address the health, energy and environmental problems related to household cooking practices, GERES created an improved cookstove, the New Lao Stove (NLS), which saves around 22% of

Quick facts

Zone	Entire territory
Topic	Energy access, Deforestation, Air Pollution, Health
Leading agency	Group for the Environment, Renewable Energy and Solidarity (GERES)
Website	http://www.geres.eu/en

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wood and charcoal compared to traditional stoves. The environmental, social and economic benefits of the project make it one of the world's largest and most recognized of its kind, winning various awards such as the 2006 Ashden Award for Sustainable Energy, the 2007 PCIA-EPA (Partnership for Clean Indoor Air - US Environmental Protection Agency) Award, the 2008 Energy Globe Award, and the 2011 PCIA Award for Global Leadership.

There are 36 NLS production centers in the country, which are producing 30,000 stoves a month for local markets. Capacity building, monitoring and quality control of the products are actuated through GERES' support program, as well as through its coordination with producers and distributors. By December 2011, the New Lao Stove exceeded expected sales, reaching 1,607,283 units sold.

Policy Details

The core objective of the NLS project was to reduce household fuel consumption and expenses, in order to protect forest ecosystems and biodiversity, mitigate global warming by limiting greenhouse gas emissions, and to reduce health hazards related to indoor air quality. Main beneficiaries of the project include: families that use charcoal and wood for cooking, commercial food producers and restaurants, micro and small-scale food service entrepreneurs, and cookstove producers and distributors. During the years 2008-2012, research and development has allowed the optimization of the NLS, which is continued by monitoring and quality control procedures. The National Campaign for Distribution of Improved Cookstoves created a network of 10 additional production centers, trained the association of NLS producers and middlemen, and facilitated micro and small-scale loans for new NLS producers. The project helps to reduce illegal deforestation and degradation of local resources through a market-based mechanism to improve domestic energy consumption.

Indoor air quality, which has an impact on the user's health, has, in fact, ameliorated due to the NLS as it produces less smoke compared to the traditional

one. Using less fuel-wood means less time spent by poor families and children gathering wood; time that can now be dedicated to education or income generating projects. Since New Lao Stoves are manufactured locally, this project creates new job opportunities for local communities and prevents work-related migration to urban areas and neighboring countries.

Partners:

- General Department of Energy, Ministry of Industry, Mines & Energy (MIME)
- Institute of Standards of Cambodia (ISC)
- Improved Cook stove Producers and Distributors Association of Cambodia (ICOPRODAC)
- Ministry of Environment, Cambodia
- European Union
- AFD, France
- MAFF, France
- UNDP
- ARECOP
- CEDAC
- CIRAD

References

The following documents informed the development of this paper:

Ashden Awards, 'GERES, Cambodia, Efficient charcoal cooking stoves - Ashden Award winner', February 29 2008. Available at: <http://www.youtube.com/watch?v=mv8GwurHsgw> (accessed 21 January 2013).

GERES Cambodia, 'THE NEW LAO STOVE (NLS) IMPROVED COOKSTOVES FOR IMPROVED LIVES: An improved cookstove to reduce the amount of wood charcoal consumed every day in Cambodia.' Available at: <http://www.cambodia.geres.eu/pdf/Project%20Sheet-NLS.pdf> (accessed 21 January 2013).

Nexus, 'GERES - New Lao Stove'. Available at: <http://www.nexusbeyondoffsetting.org/join-us/contribute/our-projects/59-geres-new-lao-stove> (accessed 21 January 2013).