

The New Lao Stove

Improved Cookstoves for Improved Lives



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Nexus member

GERES Cambodia

Objectives

- Reduce household fuel consumption and expenses
- Protect forest ecosystems and biodiversity
- Mitigate global warming by limiting greenhouse gas emissions

Targets

- Families that use charcoal and wood for cooking
- Commercial food producers and restaurants
- Micro and small-scale food service entrepreneurs
- Cookstove producers and distributors

Context and stakeholders

In Cambodia, **wood provides for more than 80% of people's energy needs**. People have traditionally relied on wood for cooking. Today, there is no sustainable management of wood resources, which has become a major issue due to the rapid pace of population growth and development. In fact, the deforestation rate in Cambodia is 2%, one of the highest in the world (UN FAO, 2007).

Cooking with wood and charcoal has direct **negative health impacts** on users, most of which are women. Indoor air pollution, mostly from wood and charcoal smoke, is responsible for respiratory, heart and eye problems. According to UNICEF, indoor air pollution, mostly from burning biomass for cooking and heating, kills **1.6 million women and children each 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 wood and charcoal compared to traditional stoves**. This increased efficiency provides both monetary and health benefits for users. By improving the efficiency of the stove overall emissions will be reduced (less fuel use), so it is likely that indoor air pollution will also be reduced.

Key facts and figures

- **22%** less fuelwood and charcoal than a traditional cookstove
- **More than 1,000,000** New Lao Stoves distributed since 2003
- **More than 769,000 tons** of CO₂ eq emissions reduced from 2003-2009
- **3 international awards** for sustainable energy and development best practice
- **VCS accredited**

Today, over 31 NLS production centers nationwide provide local markets with around **25,000 improved cookstoves per month**. GERES Cambodia continues to support the program through the coordination of a producers and distributors association, capacity building, and monitoring and quality control.

With over 1,000,000 cookstoves distributed since 2003, the reduction in household fuel consumption has eased pressure on Cambodia's forests and reduced greenhouse gas emissions. From 2003 to 2009, more than **769,000 tons of greenhouse gas emissions** have been saved.

Impacts and benefits

Environmental benefits

Most of the fuelwood in Cambodia comes from unsustainable and illegal logging of local forests. Burning less fuelwood cuts **greenhouse gas emissions** and reduces the pressure on national forests. The NLS project helps to fight against **deforestation** and degradation of local resources by promoting improved domestic cooking equipment in a sustainable, market-based manner.

Social benefits

Moreover, using less fuelwood means less time spent by poor families and children gathering wood, time that can now be dedicated to education or income generating projects.

Economics benefits

The money saved by families on fuel expenses can now be spent on health, education or new economic activities. And since New Lao stoves are manufactured locally, this project creates new job opportunities for local communities in production, distribution and sales.

The New Lao Stoves are distributed through previously **existing national distribution channels** (retailers, wholesalers). The NLS project is thus perfectly integrated in the local economy and contributes towards making it stronger.

31 NLS production centres have been trained nationwide; local jobs were created in the provinces and the technology know-how has been transmitted to local producers to ensure sustainable development.

Action plan

- **Start and end of project:** 2003-2013
- **Research and development**
 - Optimization of the NLS, monitoring and quality control
- **National campaign for distribution of improved cookstoves**
 - National distribution network for NLS
 - Creation of 10 additional production centers (ICOPRODAC cooperative)
- **Training and networking**
 - Association of NLS producers and middlemen
- **Micro and small-scale loans for new NLS producers**

Testimonial



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Seem Kiry, Phnom Penh inhabitant, New Lao Stove user

“I like using this stove because it heats well. Cooking is faster. I’ve been using it for 2 years already. It’s practical because it’s solid. It consumes less charcoal. That saves us money too”

Project Developer and partners

	The Group for the Environment, Renewable Energy and Solidarity (GERES): For over 30 years, GERES has led innovative and sustainable development projects in developing countries, with the mission of protecting the environment and reducing poverty. (www.geres.eu/eng)
Partners	European Union, UNDP, AFD (France), MIME, Cambodia, MAFF (France), Ministry of Environment, Cambodia, ARECOP, CEDAC, ICOPRODAC

Contact

Nexus-Carbon for Development

contact@nexus-c4d.org

Tel (Singapore): +65 647 35 431
Tel (Cambodia): +855 23 990 591

www.nexus-c4d.org

Nexus-Carbon for Development is an alliance of pro-poor project developers whose shared vision is that the carbon market should tackle both climate change and poverty in a fair and transparent way. As a global alliance of social ventures, Nexus acts as a peer-to-peer services platform, creating synergies between its members and providing awareness raising, capacity building, carbon project documentation, and carbon asset management. www.nexus-c4d.org