

**IMPACT SHEET:** Upscaling Improved Cookstove Dissemination in Myanmar through replication of best practices from Cambodia and the Region (SCALE)

## Facilitating wide scale access to cleaner and more efficient cookstoves in Myanmar



*The project puts a market-based dissemination mechanism in place for fuel-efficient improved cookstoves, helping manage demand for wood fuel and leading to the mitigation of more than 33,200 tonnes of CO<sub>2</sub>*



## CHALLENGE

According to the WHO, 3 million people die each year because of open fire or traditional biomass (firewood and charcoal) cooking devices. In Myanmar, a country of 60 million people, more than 85% of the population relies on biomass and cooks daily with inefficient and highly polluting cookstoves. Today, most of the wood used as fuel comes from unsustainable and sometimes illegal logging of local forests. Forest degradation has become a major issue in Myanmar, with an annual deforestation rate of 2% (UN FAO 2007). Fuelwood use also increases the burden on women, as they are the household members primarily in charge of collecting firewood, spending more than 200 hours a year on this activity. In addition, traditional cookstove production is highly fragmented and not standardized, with consumers rarely having information on the quality, performance or safety of such devices. Cleaner and more efficient alternatives, such as improved cookstoves (ICS), are not widely available.

## PROJECT BACKGROUND

To respond to these obstacles for the transformation towards sustainable consumption and production, the European Union (EU) funded the collaborative project, under the SWITCH-Asia Grants Programme, titled, Upscaling Improved Cookstove Dissemination in Myanmar through replication of best practices from Cambodia and the Region (SCALE).

The SCALE project was launched in Myanmar in 2014 and continued through 2018, putting in place a market-based dissemination mechanism for fuel-efficient improved cookstoves. The project was implemented by a consortium led by GERES Organisation in partnership with Ever Green Group (EGG), ENERGIA and ICoProDAC.

## PROJECT OBJECTIVES

The Action aims at catalysing the Improved Cookstove (ICS) sector in Myanmar through an integrated approach to achieve a high added-value for the local private sector, product quality control, improved access to ICS markets, and informed decision making at the policy level.

The specific objectives included:

- Supporting ICS sector development and scale up the production, supply and promotion of improved cookstoves
- Stimulating domestic demand for ICS
- Fostering a policy environment that is supportive of positive climate and energy action

## TARGET GROUPS

- **SMEs** involved in ICS production and distribution
- **ICS end users** who utilise standardised quality ICS in the target areas
- **Actors in the Myanmar cookstove sector** and biomass value chain, policy makers and development practitioners
- **Improved cookstove production enterprises**, including national implementing partner Ever Green Group and its network of organisations
- **Consumer groups and community-based organisations** involved in advocating for ICS based on its benefits
- **Government institutions** needed to develop policies that can facilitate uptake of ICS technology

## PROJECT ACTIVITIES

### Myanmar Cookstoves Market Assessment

SCALE conducted a stove market assessment as well as baseline socio-economic and energetic studies. This work identified challenges and opportunities within the cookstove sector in the country. Based on these findings, the SCALE project team was able to adapt its strategy and select the most relevant actions to implement; such as choice of value chain and type of media to use for promotion.

### Supporting the establishment of a stove testing and development facility

The project aided the establishment of a stove testing and development facility within the FRI to become the national reference facility for R&D on biomass cookstoves and fuels and standards development, enabling further control of the ICS sector to ensure that Myanmar population can have access to high quality stoves.

### Identification of distributors and retailers (mapping, network) and commercialisation plan

Activities such as meetings, gathering both producers and distributors, were carried out. These meetings allowed to mobilise the distributors and retailers and to raise their interest towards the Improved Cookstoves designs. Following these meetings, the value chain stakeholders showed more interest in the ICS market and the communication between producers and distributors was improved.

### Gender balanced selection of producers in the target areas and training on quality and business management

In 2017 and 2018, two sessions of ICS Pathein producers' training were carried out. It gathered 33 workers (out of which 22 were women) from 11 workshops out of 17. The

trainees were selected in collaboration with the producers' association and on a voluntary basis. Each workshop then received specific tools and templates as well as a mould and blade, adapted to the ICS Pathein specifications.

### Knowledge transfer to governmental and financial institutions

In 2017 and 2018, GERES contributed to a knowledge transfer to FRI with the lab training organised in Yezin, strengthening of civil society in the form of practical recommendations. Several documents, such as a comprehensive review of test results, were also shared to the Forest Department.



## PROJECT ACHIEVEMENTS

- By the end of the project, 30 trained ICS skilled producers reached an total average production of between 6,000 and 8,000 standardised quality, locally appropriate, affordable ICS models per month.
- Distribution chains in 8 states/divisions received over 40,000 USD of added value income from ICS distribution
- At least 50 distributors/retailers are involved in supplying the market with standardised quality ICS
- In the Dry Zone and in Pathein area, all trained producers have passed the quality training. All of them are following up their production and sales thanks to a dedicated logbook
- 92% of households indicate to be satisfied with the San Pya ICS. Whereas producers (65%) and distributors (80%) now are aware and knowledgeable on quality and durability of ICS. Before the project most producers had limited idea about quality and durability. As a result, the confidence in the San Pya ICS has been established and should trigger an increased uptake through the market.
- 60 SMEs were engaged in the production and distribution of ICS, with sustainable business plans, and contribute to job creation
- 41,500 households using ICSes benefited from time and/or money savings and improvement in sanitary conditions

## LESSONS LEARNED

Through partnership with ENERGIA, skills inside GERES team were built in relation with gender and energy topics. It created both awareness and operational knowledge for GERES national and international teams.

Thanks to the field experience working with the private actors of the two ICS value chains, GERES' Ecodev Programme created knowledge documents on the topic of support of private sector.

Lessons learnt from Myanmar were shared with other projects implemented in different countries such as Morocco and Mali.

Dissemination of the technical work carried out during the Action was a priority for GERES. For example, all technical studies and reports were shared with the Forest Research Institute. Good practices were shared during seminars organised with the Dry Zone Greening Department.





**François-Xavier Sorba**  
Project Manager, GERES

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I had the opportunity to manage the SCALE project for nearly two years. During that time, I felt that all the stakeholders taking part in the Action, including governmental counterparts such as the Forest Research Institute or private sector representatives, were constructively collaborating to achieve a scale-up of ICS dissemination in Myanmar. Households and small-business cookstove users were satisfied with the redesigned cookstoves and the ICS value chain had really taken off by the end of the project.

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“The recent training by GERES in improved A1 stove production was very helpful. We have already made 200 improved A1 stoves. We got good feedbacks from the retailers. Seeing the consistent finish, better quality grates and the good looks of the standardized stoves, the retailers are asking for improved A1. Now, we need to learn how to talk about the benefits of the improved A1 with retailers and consumers. If we do so, we should see further growth in our business.”

**Daw Khin Khin Gyi**, 47 years old, pioneered stove production in her region in 1995. She is from Ta Mar Myaing Ward, Chaung U, in the dry zone of Myanmar

## Long-term project sustainability

While the sustainability of the project will depend on a number of unpredictable factors, the project team invested time and resources in a number of activities dedicated to key factors that will help with long-term change. This included:

- Ensuring that FRI staffs are able to fully use the Stove Testing Laboratory in Yezin via a 3-month training programme
- Ensuring that newly formed producers' associations are well equipped to continue their structuration
- Ensuring that San Pya A1 and San Pya Pathein supply chains are strengthened (technical skills, marketing capacities)
- Supporting the access to carbon finance as a potential source of funding for the sector in the future
- Ensuring that government counterparts of SCALE project are consulted and mobilised, and take ownership of the topic - which was supported by a three-day policy workshop

While all of these actions will help protect the project's impacts, the results during the project were also substantial and promising.

## Project contributions to Climate Change Mitigation and SDGs



The 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) provides an overarching framework for responding to protecting and enhancing the natural assets of countries, both marine and terrestrial, mitigating environmental degradation, air pollution and climate change and putting countries on the path to sustainable consumption and production.

- **SDG 12** is at the centre of this project, with the principal objective of facilitating wide scale access to cleaner and more efficient cookstoves in Myanmar
- SCALE also contributes to **SDG 1**, reducing poverty particularly through the creation of jobs needed to produce improved cookstoves, with 60 SMEs being involved in production and distribution
- **SDGs 7 and 13** were impacted directly as moving to a cleaner energy source mitigates carbon emissions

Climate change mitigation was a major feature of SCALE. Along these lines, monthly production after the project end-date was projected to be between 6,000 to 8,000 units, which means that SCALE have created the conditions to allow the dissemination of up to 80,000 ICS per year. According to the Carbon Finance feasibility study conducted in June and July 2018, a carbon project involving both value chains over a crediting period of 10 years could generate up to 285,000 Emission Reductions (ERs).

# Impacts at a Glance

<b>Economic Impact</b>	<ul style="list-style-type: none"> <li>Income and savings components represent a combined economic value of EUR 355,079 through adoption of ICS technology</li> <li>340 distributors and retailers were involved in the distribution of ICS</li> <li>41,500 ICS units were distributed by the closing of the project, with monthly production projections between 6-8,000 units</li> </ul>
<b>Environmental Impact</b>	<ul style="list-style-type: none"> <li>Firewood and charcoal showed reduction rates of 20,856,000 kg before the project and 17,712,000 kg after due to ICS usage</li> </ul>
<b>Social Impact</b>	<ul style="list-style-type: none"> <li>92% of households indicate to be satisfied with the San Pya ICS</li> <li>Among 54 trained ICS producers, 33 of them were women. The action also supported mobilisation of female distributors, reviewed marketing material aimed at women consumers.</li> <li>SCALE had a strong gender dimension in all activities with the inclusion of women in the technical trainings as well as ways to specifically mobilise female distributor</li> </ul>
<b>Climate Benefits</b>	<ul style="list-style-type: none"> <li>With the dissemination of 41,500 San Pya improved cook stoves, an equivalent of 33,200 – 66,800 tonnes of CO<sub>2</sub> have been avoided</li> </ul>
<b>Green Finance</b>	<ul style="list-style-type: none"> <li>A carbon finance feasibility study was conducted and demonstrated that carbon financing showed good potential, mostly in the Dry Zone</li> </ul>
<b>Target Group Engagement</b>	<ul style="list-style-type: none"> <li>54 producers of ICS and 340 distributors and retailers were engaged in project activities</li> <li>98 Facebook posts reaching 550,000 people. 800 spots broadcasted on TV. 950 spots were broadcasted on the radio, 15 billboards were installed and 99 promotion events were held.</li> <li>Producers associations, local NGOs, government, consumer groups, social and traditional media were all engaged</li> <li>Two consumer groups were created in the Dry Zone and are regularly consulted on user feedback. Another consumer group was created in Dala, close to Yangon, for charcoal ICS users.</li> <li>A specific label was developed to allow recognition by the end-users.</li> </ul>
<b>Policy Development</b>	<ul style="list-style-type: none"> <li>A national strategic action plan was developed after a three-day workshop</li> <li>Cookstoves standards government working group</li> <li>Stove lab installed and 5 staff from Forest Research Institute fully trained.</li> </ul>



## FUNDING

EUR 2,465,770  
(EU Contribution: 81.11%)



## DURATION

January 2014 - July 2018



## PARTNERS



GERES



Ever Green Group



Hivos-ENERGIA



IcoProDAC



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