

Background

The EU-funded SWITCH-Asia Improved Cook Stoves project (2013–2016) involved the development of the sustainable supply chain of fuel-efficient Improved Cookstoves (ICS). The project was supported by Oxfam Novib and the Blue Moon Fund, and implemented by the Lao non-profit organisation (NPO) Association for Rural Mobilisation and Improvement (ARMI) and Netherlands Development Organisation SNV-Lao PDR. By mid-2016, over 100,000 ICS had been made by 20 family businesses and then sold through a network of more than 850 retailers. The ICS reduce fuel use and cooking time by more than 20 percent compared to traditional ceramic stoves, resulting in time savings and lowering greenhouse gas emissions (GHG).

Since 2015, SNV and IGES have been working for the ADB regional technical assistance (RETA) project called Harnessing Climate Change Mitigation Initiatives to Benefit Women to introduce an important gender dimension to the ICS work. This project brings together a multi-disciplinary team to help integrate gender into climate change policy in Lao PDR, and support women's

groups in generating co-benefits from the production and sales of renewable- and low-energy technologies. The project has helped to pave the way for meaningful on-the-ground outcomes such as reductions in indoor air pollution which primarily benefits women and children. Moreover, it has helped promote understanding of the concept of gender equality and its implications for climate initiatives.

One of the fundamental understandings that came about was that gender inclusion should recognise and acknowledge women not only as passive recipients of goods and services, but as active contributors to the supply chain. This potential is often underexploited due to implicit biases that prevent women from meaningful engagement in revenue generating activities. Whereas the ICS program aims to generate carbon finance by reducing wood and charcoal use, the real-life impacts when women are actively included can deliver learnings that help inform policy dialogue to make climate policy more gender-responsive. Furthermore, it has also led to a review of the ICS value chain and has identified opportunities to include more women-led producers in the supply chain.

Co-benefits: Empowering disabled women as agents of change

One interesting producer that stands out is the Lao Disabled Women's Development Centre (LDWDC). This centre hosts 25 young women from disadvantaged families for a nine-month internships. During this period, they receive capacity building and training to develop income-generating skills such as weaving, handicraft, paper-making, arts and computing. In addition, they share experiences among each other which often help to build self-esteem and confidence in a mutually supportive environment.

The LDWDC had previously been invited to make the end of year souvenirs for ICS stakeholders, and as a follow-up to this engagement the RETA team began exploring possible interest in establishing an ICS production centre. The process started with a long lead period during which the LDWDC visited nearby ICS producers and the possibilities of starting a stove production workshop were considered. After some contemplation, the centre tested the market to ensure ICS production was

financially viable. They did this by starting with door-to-door sales of stoves sourced from nearby producers while also dedicating a section of their on-campus shop for the ICS stoves. They then established strategic partnerships with local authorities and the Lao Women's Union, to help



Source: SNV pilot project

them prime the market and get the necessary support to enter into villages. Through this preparatory work, they determined that the demand for ICS proved sufficiently high and stable to justify investments and related risks; the decision was then made to go ahead with the production centre.



Source: SNV pilot project

Through the RETA and the ICS programme, the LDWDC was mentored and supported by ARMI like any other producer; however, many additional adaptations were needed to make the production process operational for the women involved. The RETA provided the necessary additional support for customised fit-out of the centre as well as supplementary training which led to the LDWDC achieving certification as an accredited ICS production facility. This creation of a functioning ICS production centre helped to establish a more entrepreneurial approach to ICS production as a business, rather than a more familiar charitable perspective. As a local NGO, LDWDC has a history of attracting charity and grants from embassies and volunteer initiatives, while the more business-like approach employed under the RETA was premised on the LDWDC production centre operating as a private firm. Developing an understanding of this change and what it meant for

LDWDC's operational norms was an additional capacity building activity under the project. Another noteworthy point is that with this new role the LDWDC itself was charged with resolving several management issues which it often did in an out-of-the-box fashion that had the second order effect of stimulating greater learning.

Working with the LDWDC brought new challenges for the supporting team. Not only were all of the workers at the ICS production centre women, but they required a range of modifications to tools and equipment to enable them to maximise their abilities, and they lacked any background or experience in ICS production. To address this, the RETA team designed a modified coaching strategy for LDWDC with support not only from provided by the ARMI team, but supplemented with additional support from local ICS producers who visited the LDWDC production centre at regular intervals. This customised support regime ensured that LDWDC was able to produce stoves which gained the proper ICS accreditation—albeit with some trials and errors along the way.



Source: SNV pilot project

Challenges and Way Forward

This innovative intervention was unique in the way that it sought to empower a segment of the population that is frequently left out of the employment market. In the longer term this largely successful in that regard, though there were some speed bumps. For instance, the first two batches of 100 stoves produced did not pass initial inspection for quality of construction. It was not until a third batch was produced that they passed inspection and a sample could be sent to for testing at the Ministry of Science and Technology laboratory. These stoves were found to meet efficiency standards, and the LDWDC production centre received its ICS accreditation.

At the end of 2016, LDWDC has made more than 1300 ICS for the market, and it is now evident that the main bottleneck is not demand but rather the production. If the centre is able to improve its internal management and streamline the production process, it is expected that 500 stoves per month can be made at a net profit of 2 USD per stove. This kind of revenue stream would be very welcome and help the centre to continue to build investment in its core priorities. The possible influx of carbon finance from ongoing ICS production could additionally help to branch out and further up-scale production.

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