



SIINC for WASH

Impact-Linked
Finance for
ATEC



Social Impact Incentives for Water, Sanitation and Hygiene (SIINC for WASH) is an Impact-Linked Finance programme co-designed and implemented by Roots of Impact and Aqua for All.

It provides innovative funding to water and sanitation enterprises in Asia, Sub-Saharan Africa and the Middle East and North Africa (MENA).

SIINC for WASH is an innovative and catalytic financial instrument, where an outcome payer (e.g. a philanthropic organisation, development agency or other donor) agrees to make time-limited payments to the enterprise based on the impact generated by their operations.

To become eligible for a [SIINC](#) transaction, the enterprise must raise an investment round in parallel (e.g. equity, debt, mezzanine).

These temporary payments support water and sanitation enterprises to:



Increase their revenues



Enhance their impact



Attract private capital

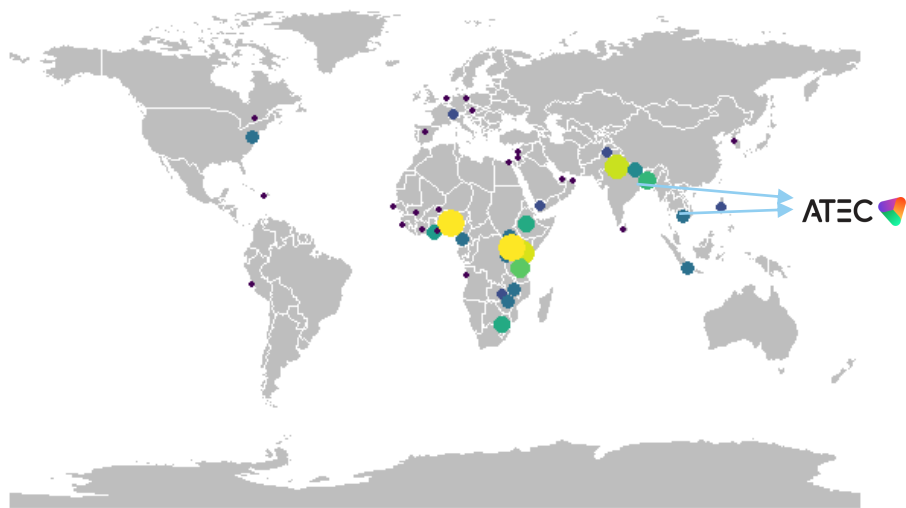
The greater the impact created, the higher the financial rewards.

The first SIINC for WASH call for applications (August-September 2020) received 140 applications from 33 countries (map below).

Three finalists were selected to participate in a SIINC transaction.

The selection and screening process included thorough review and continuous engagement with the shortlisted candidates.

Biodigester and clean cooking enterprise [ATEC](#) was one of them.



ATEC enterprise profile	
Founding year	2015
Country of operations	Cambodia and Bangladesh
Business focus	Waste treatment, circular economy, hygiene, clean energy
Main target groups	Rural and peri-urban farmers
Growth stage	Scaling
Total biodigesters sold to date	More than 1500

Biodigesters for smallholder farmers

Addressing water, soil, and air pollution

In Cambodia, the lack of treatment of livestock manure often leads to water pollution. This in turn can negatively affect human health, either directly by contaminating drinking water, or indirectly, with polluted water affecting the soil utilized for farming purposes. The quality of soil in general is increasingly deteriorating, affecting farmers' livelihoods and adding to climate change. One of the major causes of soil erosion is (over)consumption of chemical fertilizers – one of the most common examples of bad soil management.

Another widespread problem in Cambodia, as in many other developing and emerging countries, is the widespread utilization of firewood and charcoal for cooking purposes. This applies to over [74% of households](#) in Cambodia. Such practice has severe harmful effects, from deforestation to exposure to indoor pollution and [more](#).

[Women are particularly negatively affected](#), as they tend to be mostly in charge of chores such as cooking and collecting wood.



ATEC's solution: Biogas for clean cooking plus organic fertilizer

Developed by Engineers Without Borders Australia and Live & Learn Environmental Education, ATEC provides biodigesters to smallholder farmers in Cambodia and more recently also in Bangladesh. The standalone biodigester collects waste (mostly manure, but also human and bio waste) and transforms it into biogas for clean cooking and organic fertilizer. This, in turn, translates into many benefits for both the people (e.g., by killing <90% of pathogens, reducing exposure to indoor pollution, and creating time efficiencies) and the planet (e.g., less deforestation and land degradation).



Tailored services for poor smallholder farmers

ATEC has pioneered the first PAYGO model for biodigesters that gives smallholder farmers the opportunity to pay off in installments using digital money. In addition, ATEC offers since 2021 a three-month free trial (Brand Promise Guarantee) to allow farmers to first-hand experience the multiple benefits prior to actually buying the biodigester.

An ATEC customer

Ly Sophal is a 30-year-old housewife living in the Battambang province in rural Cambodia. Sophal's daily routine starts with cooking breakfast for her five-person family. Aside of the household chores, Sophal also takes care of the 2-hectares vegetable farm, four cows and some chickens.

Prior to owning an ATEC biodigester, Sophal used to spend a lot of time collecting firewood and sometimes had to go to the local market to buy charcoal. Being able to generate their own cooking fuel via the biodigester and being able to cook with the ATEC cookstoves instead of having to make a fire, allows Sophal to spend more time with her family and on farming. Sophal has also stopped buying chemical fertilizers, and instead utilizes the bio-slurry from the biodigester, which has contributed to a yield increase of up to 30%, while also saving them money.

Sophal's family would not have been able to purchase the biodigester had it not been for ATEC's PAYGO system, which allows them to pay off their unit via a local mobile money kiosk in their village. Having had the chance to try the biodigester out prior to purchasing it, the entire family was soon convinced about the many benefits it brought along, not least their improved health by not being exposed to direct smoke from burning wood or charcoal in their kitchen.

Supporting strong growth while staying true to the impact mission

ATEC is already a very impact-focused enterprise. Therefore, SIINC for WASH aims primarily at supporting the company in pursuing its ambitious growth plans, while not foregoing their impact. The additional revenue stream arising from the SIINC payments further enhances the enterprise's commercial profile, which in turn can support them in attracting additional private investments. Such incentive payments also aim at ensuring the enterprises reach the necessary scale to allow an organic, full-speed growth of their original core business line (the biodigester), along with the e-cookstoves business line that ATEC launched in 2021.



Rewards for deepest possible impact

SIINC for WASH will encourage and reward ATEC for keeping the focus on creating the deepest possible impact. In close cooperation with the enterprise, three metrics have been identified:

Metric 1: Percentage of households switching from cooking with wood fuels

This metric incentivizes the enterprise to focus on the poorest customers, namely smallholder farmers, who cannot afford to buy gas and instead rely on collecting and/or buying wood or charcoal. These customers experience at least two major benefits from buying the biodigester:

1. EITHER increased cost savings, - if they previously used to buy their fuel - OR increased well-being and productivity, - if they can devote the time previously spent in collecting wood to income-generating or recreational activities instead -
2. health benefits due to reduced exposure to indoor air pollution derived from cooking with wood or charcoal

Metric 2: Customers' satisfaction measured via the Net Promoter Score

This metric focuses on rewarding ATEC for providing the best possible customer service throughout the entire (after-)sales process. This ensures that the customers use the biodigester correctly and benefit from its impact at the fullest. The Net Promoter Score (NPS) is a widely recognized and applied metric that uses customers' likelihood to recommend a product, service, or organization to family and friends and thus serves as a proxy for customer satisfaction.

The survey is performed for each customer after exactly six months of ownership to ensure consistency, as well as a comprehensive support well beyond the time of sales.



Metric 3: Percentage of households with an ATEC toilet connection

Finally, SIINC for WASH aims to further strengthen the link to human fecal waste. To date, the number of ATEC toilet connections is small and not likely to increase considerably. While in the past years, significant improvement has been achieved in Cambodia, the national rates of rural sanitation coverage in 2020 [were still at 74.6%](#), leaving some room for improvement.

ATEC has a viable toilet connection scheme that can remove nearly all pathogens, hereby decreasing sanitation-related health risks. While human sanitation is not the focus of ATEC, there is potential for further increasing the number of toilet connections. As such, SIINC for WASH aims to further encourage and reward the enterprise for this development.



"For us, SIINC for WASH is a quality seal and a way to clearly steer us towards impact. It also demonstrates that we are able to make use of highly innovative impact finance mechanisms and get out of our comfort zone by trying something new. Building the SIINC metrics into our financial modeling definitely reduces our risk profile and positively impacts our access to and interactions with current and future investors."

Nikolai Schwarz
Country Director Cambodia
ATEC

[Read the entire interview](#)



Rewarding additional impact...

SIINC aims to push the enterprise's impact boundaries. It rewards only additional impact created, i.e., outcomes achieved on top of what was already planned for by the enterprise. According to projections, thanks to SIINC's incentives, the enterprise may reach 200+ households that prior to buying the biodigester used wood fuels as the main cooking source.

Similarly, during the duration of the transaction¹, SIINC aims at more than doubling the Net Promoter Score² and connecting additional households with an ATEC toilet connection.

1 The duration is two years with four measurement periods of six months each.

2 The baseline assessment for the Net Promoter Score was undertaken in July 2021 and is assumed to stay constant.



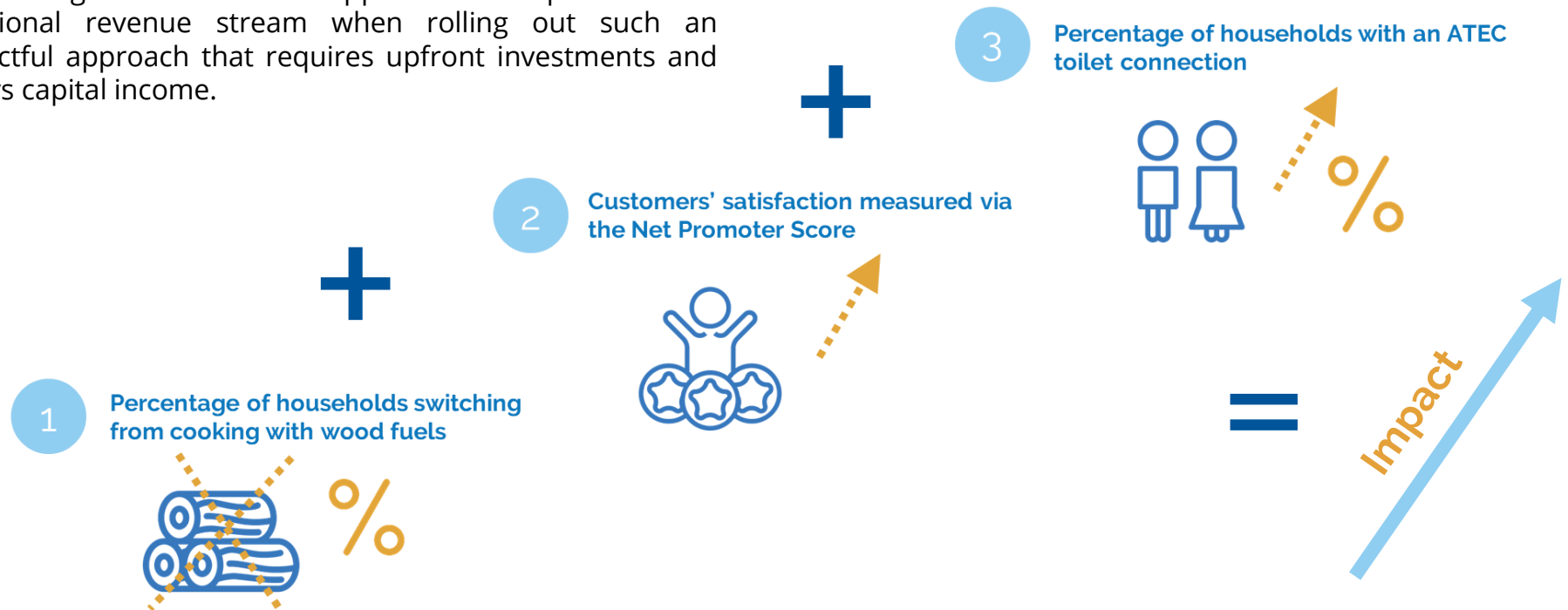
...while attracting capital...

As with any SIINC, in order to receive the incentive payments, the enterprise was required to raise an investment round in parallel. The reasoning behind this is twofold: On the one hand, SIINC aims to have financial leverage, i.e., it aims to make the enterprise more attractive to investors and thus catalyze private investments. On the other hand, SIINC specifically targets enterprises with ambitious growth plans, to ensure their solutions are applied at scale. For ATEC's PAYGO-debt investment round raised in parallel with SIINC, a financial leverage of approximately 1:4 was achieved.

... and ensuring impact sustainability.

The idea behind SIINC is to support ATEC in becoming self-sustainable in commercial and impact terms. The enterprise launched the Brand Promise Guarantee model when the structuring of the SIINC transaction began. Therefore, an additional goal of SIINC is to support the enterprise with an additional revenue stream when rolling out such an impactful approach that requires upfront investments and delays capital income.

Finally, with operations in Bangladesh still at a relatively early stage, the broader aim is to support ATEC in replicating its success stories from Cambodia in Bangladesh.



Looking back and ahead...

With a strong focus on reaching self-sustainability, SIINC supports ATEC in strengthening its commercial growth without compromising on deepening its impact.

Once the two-year SIINC transaction draws to an end, ATEC is aimed to have reached a stage in terms of growth and profits that allows it to sustainably grow its biodigester business line in Cambodia and Bangladesh, and ideally also more globally.

For more information, **please contact Aqua for All** at:



About Aqua for All

Aqua for All is an international foundation. For almost two decades, Aqua for All has worked towards catalysing an innovative, sustainable and inclusive water and sanitation economy worldwide. Aqua for All operates in Africa and Asia supporting innovations and scaling up enterprises until they are investment-ready without distorting the market. In addition, Aqua for All uses funds to mobilise private and public capital to increase investments in water and sanitation. Aqua for All brings to SIINC for WASH extensive water sector expertise as well as impact-linked funding for the enterprises.

<https://aquaforall.org/>

About Roots of Impact

Roots of Impact is a manager of catalytic capital. As a pioneer in Impact-Linked Finance, Roots of Impact believes in aligning capital with incentives to drive change for people and the planet. The mission is to empower entrepreneurs to achieve impact at scale by managing innovative funds, providing quality advisory and education, and building the field for Impact-Linked Finance.

<https://www.roots-of-impact.org/>



SIINC for WASH

Impact-Linked Finance for ATEC

December 2022

Cover: ATEC
Pictures: ATEC
Graphs: Roots of Impact, Aqua for All

