Women's Micro-Enterprise Program | Pilot Study

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Empowering Women to Recycle & Redistribute Soap to Save Lives | Results from the Women's Micro-Enterprise Program Pilot in rural Kiboga, Uganda

Introduction

Around two billion people do not have access to soap for handwashing at home—resulting in an unmitigated spread of highly preventable illnesses, extensive deaths (mostly young children), and billions of dollars in public health expenditure per year.[1] At the same time, soap factories annually discard around 410 million bars worth of soap waste directly into landfills. [2]

Eco-Soap Bank is a Pittsburgh-based social enterprise working to solve the global hand-hygiene crisis by employing marginalized women to recycle leftover soap waste from factories and redistribute it to at-risk communities. By harnessing the value of a previously wasted resource, Eco-Soap Bank is working to 1) make soap more affordable for marginalized populations, cutting costs thanks to donated raw material while reducing soap industry waste, water footprints, and carbon emissions; 2) provide good-wage employment and training for disadvantaged women in low-income countries; and 3) produce high-quality recycled soap products that contribute directly in critical settings towards the fight against one of the world's most damaging and overlooked humanitarian disasters – hygiene-related illnesses and deaths.

Today, Eco-Soap Bank operates four soap-recycling hubs in Africa and Asia, generating ongoing employment and training for 175 women. Since 2015, the organization has distributed over 36 million recycled soap bars to 7.7 million beneficiaries.[3] Until now the recycled soap has been distributed mostly to NGO partners serving schools, refugees, and disaster-response programs.

Yet the need for soap goes well beyond the humanitarian setting, and to improve hygiene access for people outside of short to medium term-relief efforts, Eco-Soap Bank has launched a brand-new initiative utilizing a familiar, but for these ends highly underutilized, system that penetrates even the most remote corners of the globe – the retail system. As beneficiaries in rural Tanzania reported when asked how to sustainably improve their access to soap:

"*make it [soap] more affordable for everyone*" and make sure that "*Eco-Soap is available to purchase in nearby shops*".

Responding directly to this bottom-up demand, the Eco-Soap Bank team introduced the micro-enterprise initiative, offering marginalized women in low-income countries the opportunity to become recycled soap selling entrepreneurs. Women operated micro-enterprises are increasingly recognized for the ability to provide crucial income streams for poor and marginalized groups in the least developed economies. The practice can facilitate the economic participation of women and has been strongly linked to improved access to basic needs, nutrition, healthcare, and education — making a

[1] Townsend et al (2017): Costs of diarrhea and acute respiratory infection attributable to not handwashing the cases of India and China, *Tropical Medicine and International Health*, Vol. 22; UN Water (2023): "*Handwashing/Hand hygiene*", available at https://www.unwater.org/water-facts/handhygiene/

[2] 8.2 million tons of bars soap was produced globally in 2024. Out of that, 25.3% was handwashing soap bars, 62.5% bathing/body bars, and 12.2% specialty bars (organic, therapeutical, etc.). Focusing on handwashing soap bars only and assuming an industrial production scrap rate of 2% (which is in the lower range of accepted industry standard ratio of maximum 5%), this equates to ≈ 41,000 metric tons, or 410 million 100-gram soap bars. (8,200,000×0,253×0.02×1000) /1000 = 414 920 000. See: IndexBox (2025): World - Soap And Organic Surface-Active Products In Bars - Market Analysis, Forecast, Size, Trends And Insights, available at: https://www.indexbox.io/blog/soap-in-bars-world-market-overview-2024-5/?utm_source=chatgpt.com; Future Market Insights Inc. (2025): Bar Soap Market, available at: https://www.futuremarketinsights.com/reports/bar-soap-market?utm_source=chatgpt.com; Shoplogix (2024): Understanding Scrap Rate: Key Insights and Strategies; available at: https://shoplogix.com/scrap-rate/?utm_source=chatgpt.com

[3] Up until 2023.

significant contribution to fulfill immediate household needs and enhance family sustainability and wellbeing.[4]

This report presents findings from Eco-Soap Bank's pilot program's evaluation study in Uganda. Using a survey-based pre-post (baseline/endline) evaluation design including 45 participants from the rural Kiboga district, the study shows that Eco-Soap Bank's recycled soap sellers have experienced a tangible improvement within key financial metrics as well as an overall improvement in wellbeing. Notable changes include a 43% increase in monthly income as well as a 104% increase in savings and a 58% decrease in debt; lower financial stress levels; improved personal agency, well-being, and positivity regarding their future prospects.

The results indicate that Eco-Soap Bank's micro-enterprise model represents a viable solution to promote women's economic empowerment and improve access to high-quality recycled soap in vulnerable, hard-to-reach communities.

The section below briefly introduces the main components of the micro-entrepreneurship program. This is followed by the evaluation methodology used to measure outcomes. The article concludes with a summary of the study findings.

The Intervention: Eco-Soap Bank's Women's Micro-Enterprise Program

Eco-Soap Bank's micro-enterprise program offers marginalized women start-up resources and training to become sellers of recycled soap. The pilot program is currently being implemented in Sierra Leone, Tanzania, and Uganda.

The objective is to help set up new women-operated micro-enterprises that create opportunities for economic empowerment among local women and improve access to high-quality, affordable soap in vulnerable communities. The program rests on an evidence-based platform, utilizing proven micro-enterprise support principles - tested and evaluated among women in varying low-income contexts[5] - to ensure that participants receive the support they need to become established and ultimately thrive as independent entrepreneurs.

To achieve program objectives, women soap sellers are given 1) basic training in finance, marketing, and sales 2) a heavily subsidized start up package of recycled soap, and 3) ongoing, customized sales support. This type of bundled approach – i.e., start-up assets, targeted training, and ongoing support – is used because it has been identified as the most effective

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[4] Revenga, Ana & Dooley, Meagan (2020): What Works for Women Microentrepeneurs? A Meta Analysis of Recent Evaluations to Support Female Entrepreneurship, Global Economy and Development at Brookings; Wasihun & Paul (2010): GROWTH DETERMINANTS OF WOMEN-OPERATED MICRO AND SMALL ENTERPRISES IN ADDIS ABABA, Journal of Sustainable Development in Africa, Vol 12, No. 6; Abonge (2012): Assessing the impact of women's enterprises on household livelihoods and survival: Evidence from the North West Region of Cameroon, Greener Journal of Social Sciences, Vol. 2, No. 5 pp. 147-159; Otieno & Sakwa (2019): IMPACT OF WOMEN OWNED MICRO AND SMALL ENTERPRISES' INCOME ON THE WELL-BEING OF WOMEN- LED HOUSEHOLDS IN JUJA SUB-COUNTY, KIAMBU COUNTY, The Strategic Journal of Business and Change Management, Vol. 6, No. 4

[5] See for example: Buvinic and O'Donnell (2016): Revisiting What Works: Women, Economic Empowerment and Smart Design, Center for Global Development; Revenga, Ana & Dooley, Meagan (2020): What works for Works for Women Microentrepeneurs? A Meta Analysis of Recent Evaluations to Support Female Entrepreneurship, Global Economy and Development at Brookings

measure to help dismantle some of the major constraints faced by emerging women micro-entrepreneurs in low-income economies.[6]

Evaluation Methodology

The outcomes of the pilot program in Uganda were evaluated through pre-post (baseline/endline) design tracking soap sellers potential progress towards economic empowerment. Today, empowerment is generally equaled to gaining the capability to make strategic life choices.[7] Within this wider understanding, economic empowerment relates more specifically to individual level processes and pertains to the financial resources needed to define and make progress towards personal goals.[8]

It would, however, be too one-dimensional to presume that resources automatically engender an ability to define and reach personal goals. Women across the least developed countries face a myriad of deeply rooted structural constraints and barriers that can hinder progress. When considering economic empowerment, it is therefore essential to include both immediate increases in resources *and* the capability to translate such gains into tangible achievements.[9]

Acknowledging that economic empowerment is a multifaceted process, the impact indicators used in this study were designed to measure change across three key dimension – access to resources, agency, and personal well-being (i.e. achievements).[10] Each indicator was operationalized through a series of variables – see table below – and conclusions were drawn by analyzing holistic change across all domains.

Table 1. A Selection of Key Performance Indicators for the Micro-Enterprise Program

Access to Resources	Agency	Achievements (Wellbeing)
• % change in income • % change in savings • Ability to afford essential expenses (nutrition, bills, school fees, etc.)	• Control over income • Purchasing power • Capability to influence household decisions	• Change in stress levels • Change in confidence • Change in life situation

Data was collected through pre-post (baseline and endline) surveys with participants. Baseline measurements were completed in September 2023. Endline were conducted in early February 2024. All 45 participants from the pilot completed both the baseline and endline surveys.

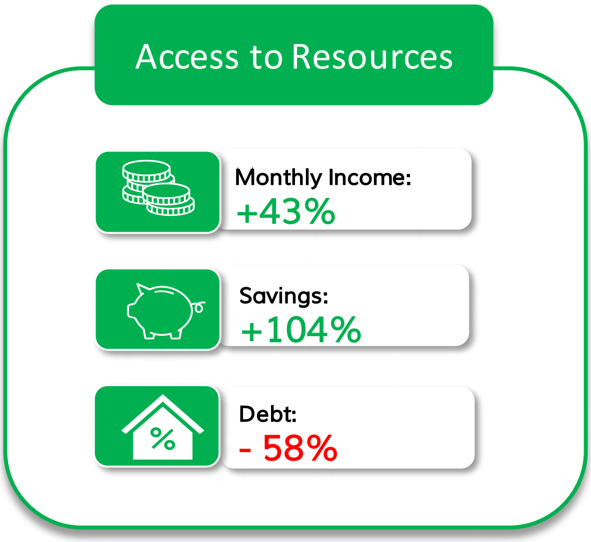
Results

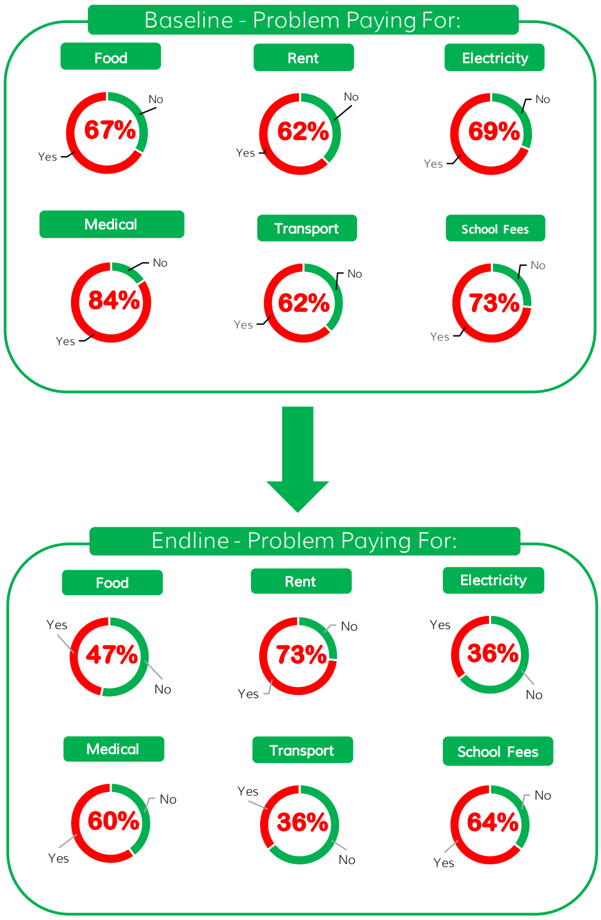
Access to Resources and Ability to Pay

Despite the relatively short period between the baseline and endline measurements, the study found a tangible increase in resources among program participants. Not only had the average monthly income increased by 43%, but the extra income had also been channeled into debt repayment and saving accounts. After just 4 months in the program, savings among program participants had increased by 104% while debt levels had decreased by 58%.

[6] Revenga, Ana & Dooley, Meagan (2020): What works for Works for Women Microentrepeneurs? A Meta Analysis of Recent Evaluations to Support Female Entrepreneurship, Global Economy and Development at Brookings
[7] Kabeer, Naila (1999): Resource, Agency, and Achievements: Reflections on the Measurement of Women's Empowerment, *Development and Change*, Vol. 13, pp. 435-464
[8] See Golla Anne Marie, Anju Malhotra, Priya Nanda and Rekha Mehra (2018): *Understanding & Measuring Women's Economic Empowerment: Definition, Framework & Indicators*, International Center for Research on Women
[9] Kabeer, Naila (1999): Resource, Agency, and Achievements: Reflections on the Measurement of Women's Empowerment, *Development and Change*, Vol. 13, pp. 435-464
[10] For methodological foundations see; Kabeer, Naila (1999): Resource, Agency, and Achievements: Reflections on the Measurement of Women's Empowerment, *Development and Change*, Vol. 13, pp. 435-464

Overall, the ability to pay for essential monthly expenses had improved slightly at endline. The increase was quite modest at this stage, but when factoring in that the program had only been ongoing for 4 months at the time of the endline survey, the finding still represents a positive trend.





Agency

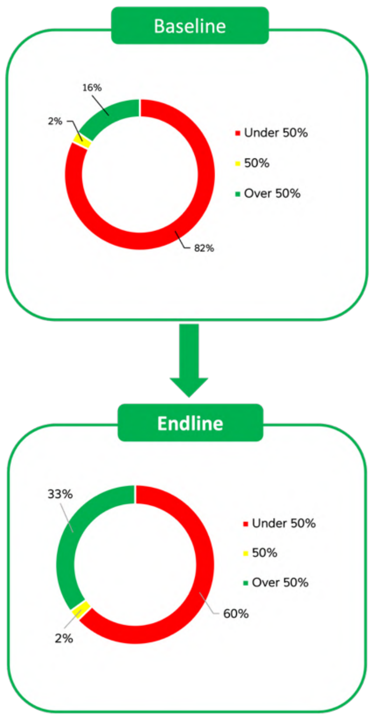
There were important signs indicating that the increased access to resources were having secondary effects within other domains. At the endline, the proportion of women reporting to have no ability to influence household decisions had decreased significantly, while their ability to spend their income on themselves had improved.

Agency

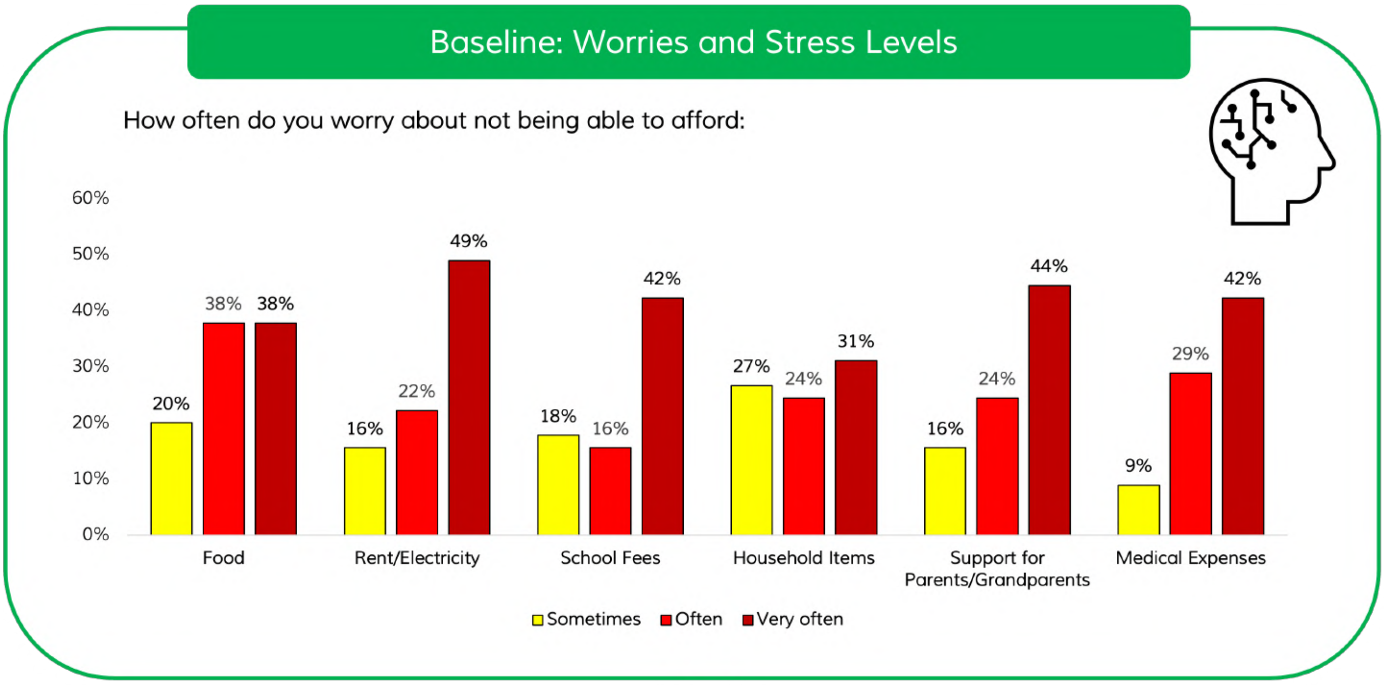
Women reporting to have no ability at all to influence key household decisions:

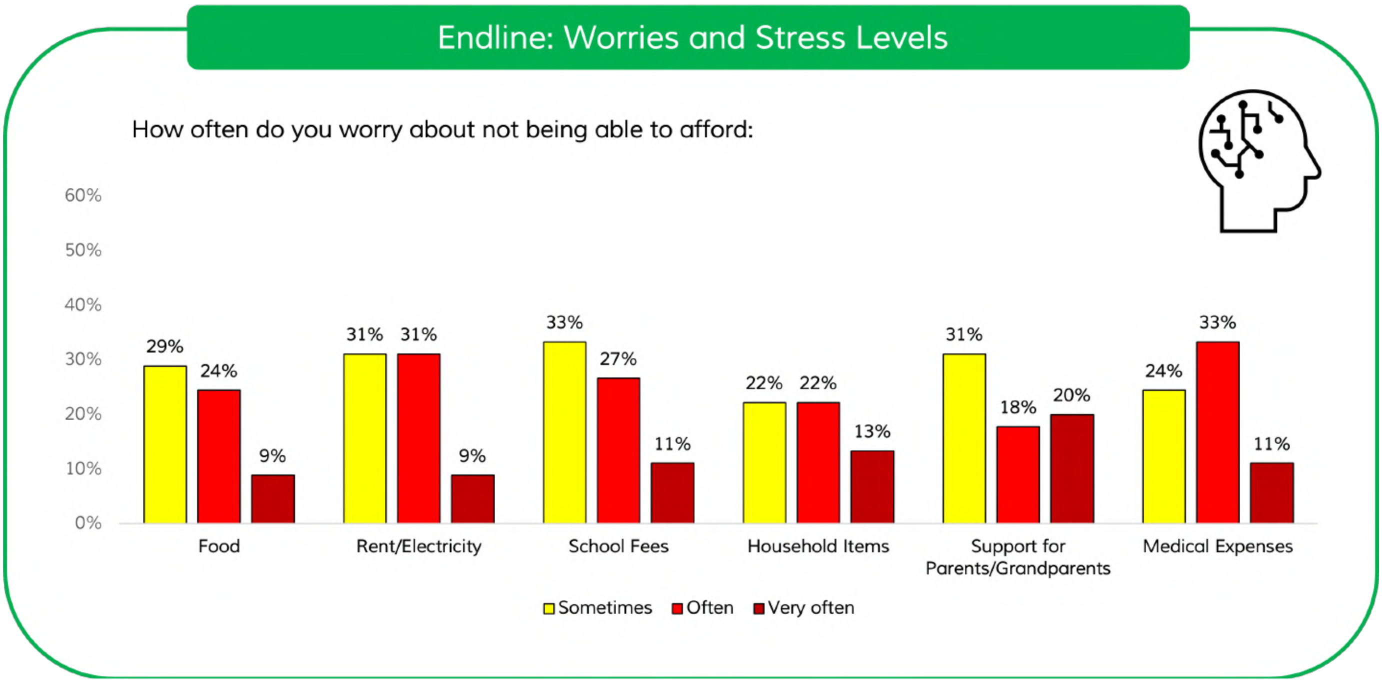
What food and beverages to buy:	How to spend savings and loans:	What household items to buy:
At baseline: 19%	At baseline: 44%	At baseline: 38%
At Endline: 0%	At Endline: 7%	At Endline: 0%

How much of your income are you able to spend on yourself?



Stress and Worry Levels





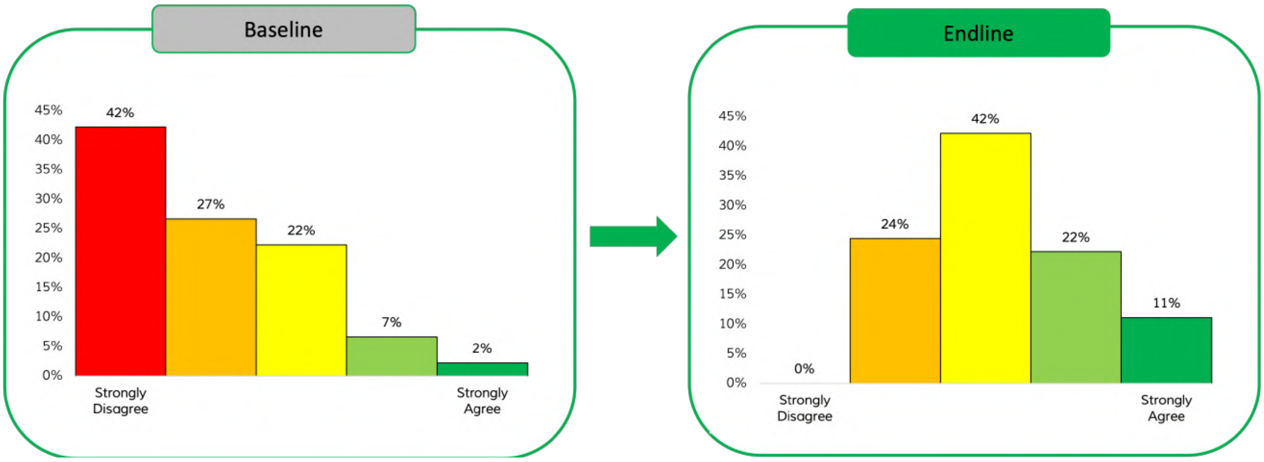
The positive trends were also reflected when going beyond the purely financial metrics and focusing on the qualitative changes. Finance-related stress levels were estimated by asking participants how frequently they worried about not being able to pay for essential monthly expenses. At baseline, these worry levels were high, with a large proportion reporting to worry "very often" about their ability to afford a range of expenses. At endline, these worries had started to decline, and we could see lower stress levels reported across all domains.

Life Situation

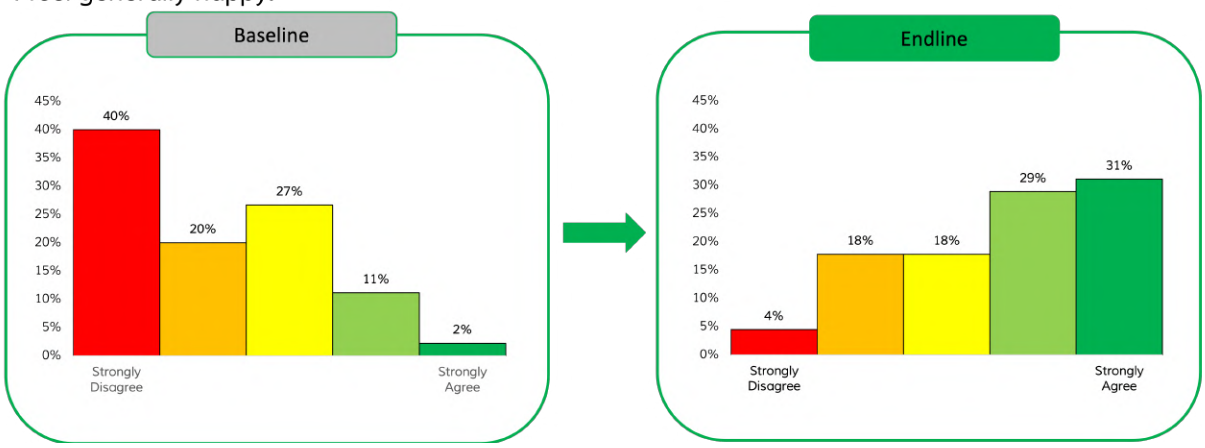
Such positive tendencies could also be found when looking at the experienced life situation. To assess this aspect, participants were asked to rate their agreement with a series of statements pertaining to different aspects of their life. Questions ranged from material conditions to general happiness and feelings about the future. Again, the results showed a distinct difference between the baseline and endline, with the clearest improvements found when asking about confidence, general happiness, and feeling positive about the future.

Life Situation

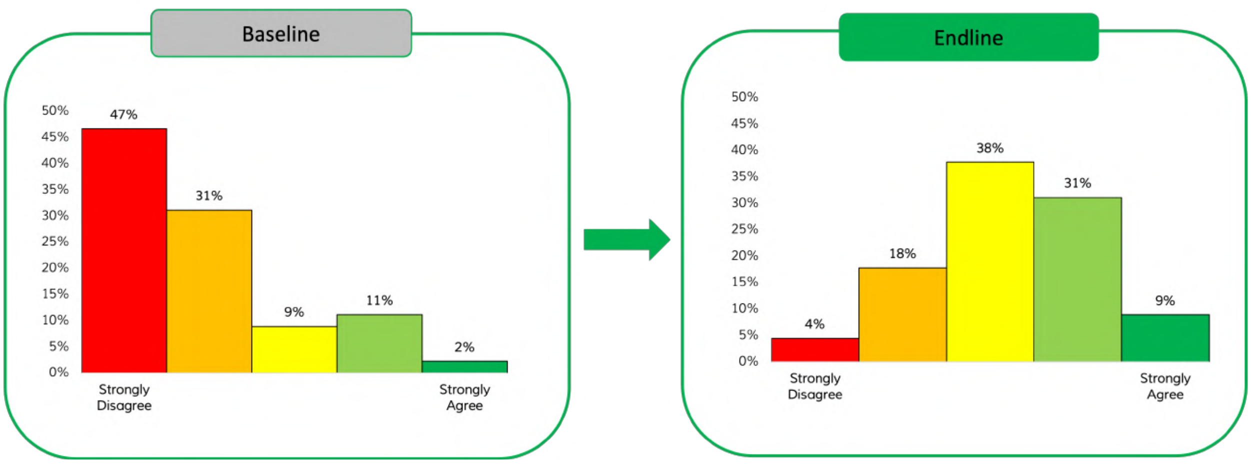
The conditions in my life are very good:



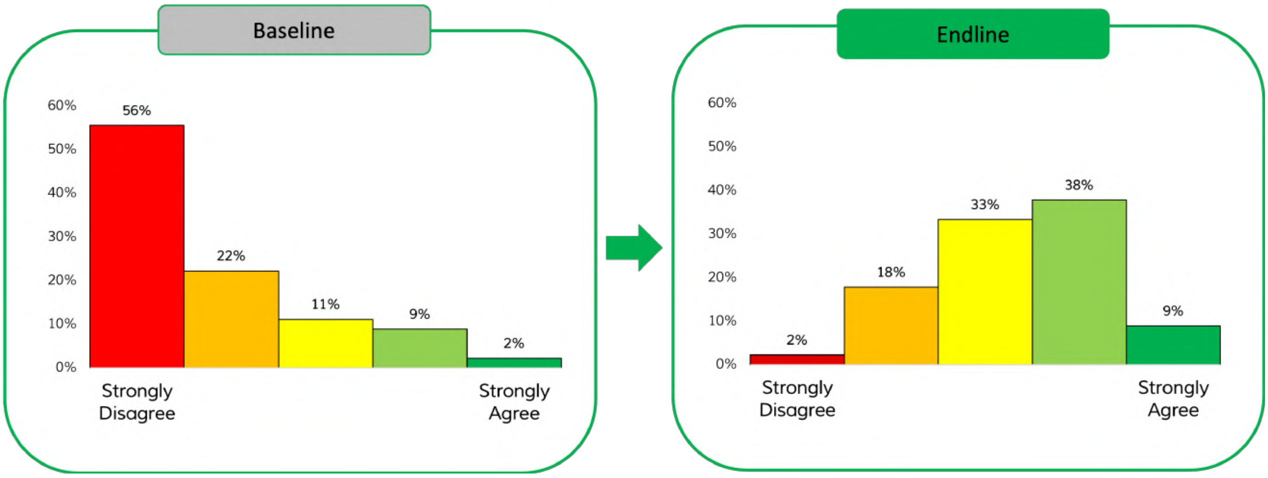
I feel generally happy:



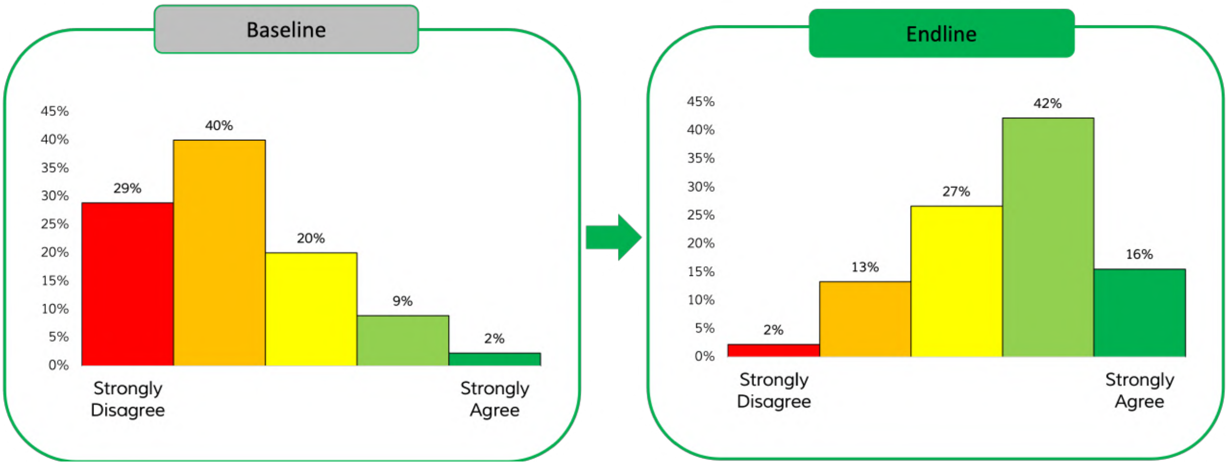
I am satisfied with my life:



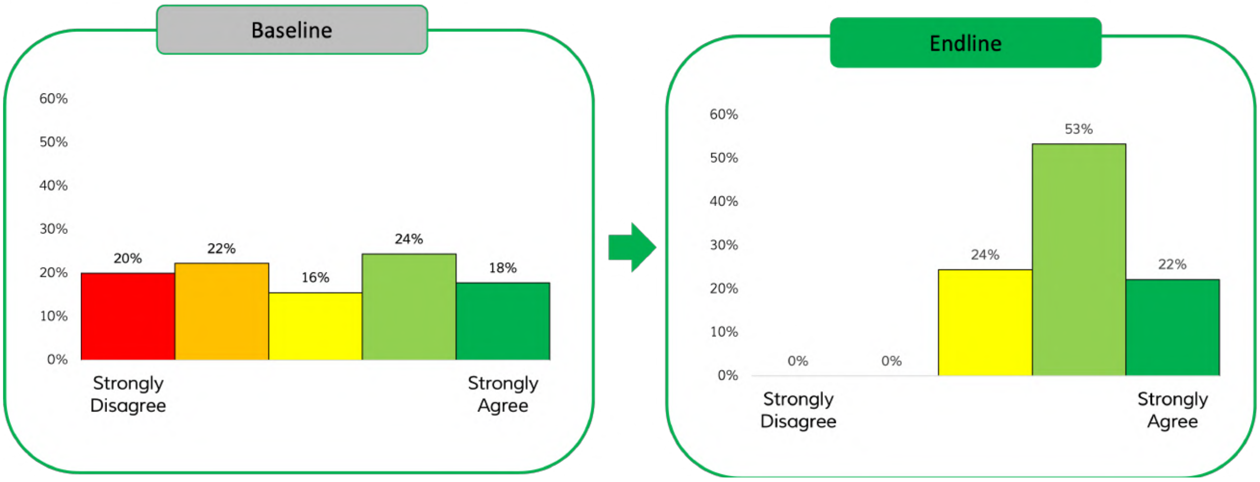
I am able to do the things I want:



I feel confident:



I feel positive about my future:



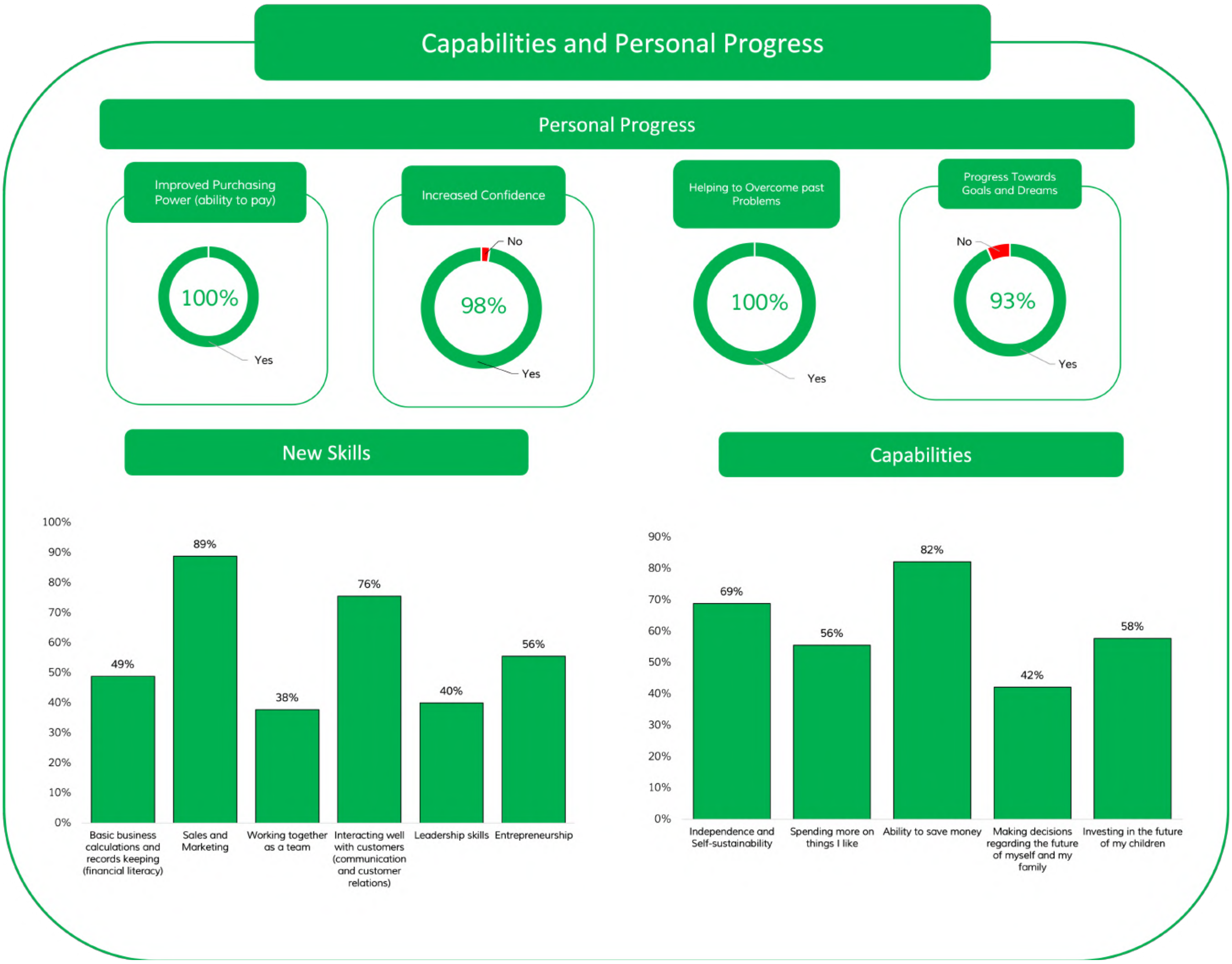
Capabilities and Personal Progress

Finally, participants were asked to assess if the program had helped improve their personal capabilities and progress. All participants reported that the program had helped them acquire new skills and capabilities, and an overwhelming majority believed that these abilities were helping them to overcome past problems and make progress towards their future goals.

"The soap selling program has helped me become self-sustainable and independent and given me hope for a better future" – Respondent 29, Kiboga, Uganda

"As a mother of 5 children, [the soap selling program] has helped me improve my ability to make decisions, invest, and spend [money] on my children" – Respondent 45, Kiboga, Uganda

"Selling soap has helped me improve my personal savings and paying off my debts" – Respondent 7, Kiboga, Uganda



Conclusion

While Eco-Soap Bank's soap selling micro-enterprise program in Uganda had only been running for 4 months at the time of the endline study, the results reveal a series of positive impacts among program participants. The overall income levels, savings, and ability to pay off debt had improved during the time in the program. Participants had gained important new capabilities and started to experience key qualitative life-changes. They also reported an increased feeling of positivity regarding their future and a high uptake of the intervention, with 100% reporting that they want to continue selling soap and 96% saying the program has helped them to engage in other entrepreneurial activities.

The findings suggest that Eco-Soap Bank's micro-enterprise approach represents a viable, sustainable solution to promote economic empowerment and sustainably improve access to high-quality, affordable soap in difficult-to-reach communities.

Eco-Soap Bank will now be working to expand the program to include more women and countries.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