



HERAN DEMISSE - SAVE THE CHILDREN

## Community-Based Marketing and Sale of WASH Products: An ENGINE Approach to WASH for Nutrition

**D**iarrheal disease accounts for more than 10 percent of childhood deaths worldwide and repeated episodes of diarrhea or intestinal worm infestation may account for 50 percent of malnutrition in childhood.<sup>1</sup> Evidence suggests that the odds of a child being stunted at two years of age, which is associated with lifelong physical and cognitive deficits, increase with each diarrheal episode and day of illness before 24 months.<sup>2</sup> In Ethiopia, 40 percent of children under the age of five are stunted and 20,500 die from diarrhea each year.<sup>3</sup> It is theorized that damage to the gut, known as environmental enteropathy, caused by repeated ingestion of fecal bacteria may be the primary pathway from poor sanitation and hygiene to under-nutrition. ➤

## ENGINE TECHNICAL BRIEF 7

EMPOWERING NEW GENERATIONS WITH IMPROVED NUTRITION AND ECONOMIC OPPORTUNITIES



The original design of the Empowering the New Generation to Improve Nutrition and Economic Opportunities (ENGINE) project did not include a water, sanitation, and hygiene (WASH) component. However, at the request of the U.S. Agency for International Development (USAID), in the fourth project year, ENGINE began implementation of activities in 46 kebeles in 10 woredas with the goal of reducing children's exposure to fecal bacteria and intestinal parasites.

ENGINE aimed to make WASH interventions affordable, accessible and practical through community-based marketing and sales. Rather than donate latrines, water filters, and other WASH products, ENGINE subsidized the cost of these materials and used local groups for

marketing and sales with the theory that if a household invests in a product, they will be more likely to use and take care of it. To achieve the desired WASH outcomes, ENGINE's WASH marketing activities targeted four household behaviors that, when improved, can contribute to a reduction in diarrhea and environmental enteropathy. These behaviors include providing filtered drinking water for children six months to two years of age, handwashing at appropriate times, providing clean play spaces for children under two years, and safe disposal of feces. ENGINE integrated WASH messages into nutrition and cooking demonstrations and enhanced community conversations as part of its overall social behavior change communication strategy.

## WASH MARKETING APPROACH

ENGINE's WASH marketing approach aims to achieve lasting behavior change by making WASH-related products more affordable, accessible, and desirable to consumers. The strategy revolves around the "five P's" of marketing: **product, price, place, promotion, and partnerships.**

**Product:** ENGINE identified play mats, water filters, latrine slabs, and tippy-taps as the products it would promote. ENGINE promoted the use of improved pit latrines and tippy-tap designs endorsed by the government and other organizations in Ethiopia, but sold only the concrete slabs needed for latrine construction, not the pit lining or structure. The project identified locally-available PVC material to produce floor mats used to keep small children off of dirty floors and yards. A market assessment found no locally-produced water filters but ENGINE identified two imported filters as potential products.

**Price:** ENGINE conducted a study to determine the difference between what the project's target consumers were willing to pay for a water filter and play mat compared to the products' actual cost. Target households were willing to pay 42 percent of the market price for the locally-produced floor mat. The study identified the Sawyer water filter as the more acceptable of the two and participants indicated they were willing to pay 33 percent of the market price. The study also concluded that households are most likely to purchase WASH

products during the harvest season (January through April), when farmers have a higher reserve of capital. Government guidelines do not allow for subsidies of sanitation products, thus in support of the government's sanitation marketing initiative, the project-supported groups sold the latrine slabs at full market price.

**Place:** In the first year of WASH activities, ENGINE engaged 23 village savings groups to market and sell the slabs, mats, and filters. In two woredas, four government-supported microenterprises constructed and marketed latrine slabs but all sales of mats and filters were done through savings groups. The following year, ENGINE engaged with 12 additional microenterprise groups to market the latrine slabs.

ENGINE trained these groups to manufacture latrine slabs and provided education about the link between under-nutrition and WASH, the importance of improved sanitation, safe drinking water, hand hygiene, and clean play spaces for children. After training, group members used the information to market their products and ENGINE supplied all groups with a one-time allotment of construction tools and supplies for latrine slabs. Savings groups also received water filters and floor mats to sell.

**Promotion:** Microenterprises and savings groups marketed their products door-to-door and at community meetings and market days. Some groups also worked closely with health extension workers (HEWs), who do not directly promote any specific product or business



during their work but promote the healthy behaviors supported by the WASH products. The HEWs also helped identify households with children under the age of two, the key demographic for ENGINE's activities.

**Partnerships:** ENGINE worked within existing government systems and policies and with the support of the government. A memorandum of understanding was signed between each savings group or microenterprise,

ENGINE, the district health office, the district administration office, and the district small and microenterprise development office, which serves as the basis for mutual support. Sanitation marketing of latrine slabs is a current government priority and *woreda* offices were supportive of ENGINE's activities. Government offices mentored new microenterprises and savings groups and government representatives facilitated training and the provision of office and manufacturing spaces.

## RESULTS

In June 2016, ENGINE surveyed four project-supported microenterprise groups, five savings groups, and 66 consumers to assess the functionality and sustainability of the WASH marketing activities and consumers' satisfaction with the products.

The majority of vendor groups were functional and consumers were overwhelmingly satisfied with the products. However, data show inconsistent household use of the products and respondents reported that many targeted

households remained unaware of WASH products and their benefits.

### Latrine Slabs

**Vendors:** At the time of survey, six vendor groups had sold latrine slabs, five of whom made between 700 and 15,000 ETB, which is likely related to the length their businesses were operational. One group sold the slabs at cost, which was not in line with ENGINE guidance.

ENGINE's WASH marketing activities targeted four household behaviors that when improved can contribute to a reduction in diarrhea and environmental enteropathy. These behaviors include providing filtered drinking water for children six months to two years of age, handwashing at appropriate times, providing clean play spaces for children under two years, and safe disposal of feces.



Some savings groups reported having plans to reinvest money earned from the sales into procuring additional stock of WASH products. Two groups also reported plans to expand their product base to other products.

Two vendors reported using profits to purchase additional manufacturing materials and three vendor groups expanded their product base to include other products, such as clean cook stoves and cement construction bricks production and sale. Both of these are positive signs of sustainability. The decision to expand the product line is likely a result of the realization that income from latrine slab sales will be seasonal and modest.

**Consumers:** All 31 households that participated in the latrine slab consumer survey were satisfied with their purchase. The most common reasons given for purchasing latrine slabs were health and safety and respondents heard about latrine slabs through spouses, project activities, and neighbors. Lack of awareness and cost were most commonly cited as reasons why some households in choose not to purchase latrine slabs.

### Household Water Filters

**Savings Groups:** Savings groups reported selling 80 to 450 water filters each, at a cost of 310 to 350 ETB (the wholesale price is 930 ETB) and a reported profit of 7,750 to 86,600 ETB.

**Consumers:** All 22 households that participated in the survey were satisfied with the decision to purchase a water filter. Respondents had learned about water filters primarily through spouses, savings groups, or HEWs. However, use of the filters was inconsistent: 10 percent of households reported that they had not yet started using the filters because they didn't understand how to install it or they believed their household water was already clean. Five households reported challenges, which included slow flow and frequent blockage during use. Only one household reported always using the filter for drinking water. All respondents said that vendors had provided some promotion or instruction at the time of purchase, primarily on how to operate the filter and its health benefits.

Respondents cited health and cleanliness as the top reasons for purchasing the filters. High cost, lack of awareness of the benefits, and the belief that their current water is safe were the most-often cited reasons why

some households didn't purchase filters.

### Clean floor mats

**Savings Groups:** Four of the five surveyed savings groups reported selling between 175 and 473 mats each for 60 to 70 ETB and a total profit of 11,025 to 27,040 ETB.

Four groups reported planning to reinvest money earned from the sale of floor mats into procuring additional stock of WASH products. Two groups also reported plans to expand their product base to other products. Though two savings groups reported having plans to purchase more play mats in the distant future and said they had identified a supplier who could sell play mats after ENGINE ends, none purchased a resupply of mats to sell in year five, despite selling out in year four.

**Consumers:** All 22 households participating in the floor mat survey were satisfied with their purchase. The reasons cited for purchasing the play mat centered on cleanliness and health. The majority of consumers (77 percent) reported always using the play mat for intended purposes; just 9 percent reported only using the mat occasionally. The most common sources of promotional information were HEWS and savings groups.

### Tippy-Tap Promotion

Twenty-two of 23 households that participated in the tippy-tap survey reported being satisfied with their decision to build a tippy-tap. All respondents reported having a tippy-tap near the latrine and 78 percent had soap at the tippy-tap at the time of the survey. The most common sources of information on tippy-taps were HEWs and savings groups; 78 percent were shown how to build their tippy-tap by a HEW.

The majority of respondents believed that households' lack of awareness of tippy-taps or of the risk of dirty hands were the main reasons some did not own a tippy-tap and cited improving awareness and providing construction demonstrations as ways to increase use.

Several microenterprise groups intend to continue selling latrine slabs and some vendors have already expanded their product line to include other WASH materials, indicating that there is a viable private sector market for WASH products that future interventions can tap into.

## DISCUSSION, LESSONS LEARNED, AND RECOMMENDATIONS

ENGINE designed the WASH marketing interventions to improve key WASH behaviors in households with children under two years of age. While the sale of latrine slabs was built on a sustainable for-profit approach, the other products were subsidized and priced low enough to ensure that targeted households could afford them. There were indications however, that some savings groups were interested in selling water filters after the project ended and microenterprise groups intended to continue selling latrine slabs. Unfortunately, the unsubsidized cost of the water filters would be prohibitive. The latrine slabs were not subsidized and the materials are locally available, so the likelihood that vendors will continue to produce and sell slabs is higher. Some groups reported expanding their product line to include other WASH materials. This interest in continued marketing and sale of WASH products shows that there is a viable market for the private sector, which can be tapped into in future interventions.

### ◆ WASH marketing groups need a strong business foundation.

Some microenterprise groups assigned by *woredas* to the project had little interest in marketing or selling WASH products. The groups disbanded and new groups were assigned to work with the project. In the future, groups should be screened for their commitment to participate in the marketing of WASH products. The village savings groups were motivated to sell the WASH products but in some cases lacked the skills necessary for construction, marketing, and sales. WASH marketing groups should have both the interest and capacity to manage the entire process and businesses must price products to obtain a reasonable profit margin to encourage continued and expanding operations.

### ◆ Strong focus on demand creation and proper product utilization are critical.

Responses indicated that the marketing done by savings and microenterprise groups was insufficient and that more targeted marketing would improve uptake of the products. Interestingly, some groups cited spouses

as the source of information about WASH products more often than vendors. Future efforts should ensure that groups are better able to market their products and stimulate demand.

### ◆ Future efforts to promote WASH products must provide more thorough training on product use and a way for consumers to obtain follow-up support to resolve problems.

Despite the fact that 86 percent of consumers reported receiving training from the vendor on water filter use at the time of purchase, the proportion of respondents reporting challenges with the water filters was unacceptably high. This was a surprising finding, since the willingness-to-pay study identified the filters sold by project-supported vendors as the simplest filters with the highest flow rate and best ease of use available in Ethiopia. Yet consumers complained of slow flow rate and blockage, which are issues commonly seen when water contains a large amount of sediment. This reveals the need for more consumer education on cleaning and maintaining the filters.

### ◆ Emphasis on sustainable approaches is needed from the design stage.

While ENGINE's WASH marketing model succeeded in providing nearly 3,000 water filters and more than 4,000 floor mats to households with children under two years of age, the sales of subsidized products will not continue. Future efforts should draw on private sector experience and rely on established supply chains to provide products at market value. Though subsidies are not sustainable, ENGINE's challenges with selling water filters at the subsidized price highlights the importance of providing low-cost products through supply chains. Future efforts could help introduce new locally-produced products to the marketplace. As the sales of latrine slabs and filters was seasonal, businesses may need to diversify their product lines; some of the ENGINE-supported groups did this by adding improved cook stoves and other items to the list of products they offered. ◆



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## ENDNOTES

1. World Health Organisation (2008c) *Safer water, better health: Costs, benefits and sustainability of interventions to protect and promote health*. Available at: [http://whqlibdoc.who.int/publications/2008/9789241596435\\_eng.pdf](http://whqlibdoc.who.int/publications/2008/9789241596435_eng.pdf)
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## ABOUT ENGINE

The Empowering the New Generation to Improve Nutrition and Economic opportunities (ENGINE) project was the U.S. Agency for International Development Ethiopia Mission's flagship multisector nutrition project. ENGINE, which was implemented from September 2011 to September 2016, built on the Government of Ethiopia's National Nutrition Program and the U.S. Government's Feed the Future initiatives to prevent undernutrition during the first 1,000 days of life, from the start of pregnancy until the child is two years of age. The project was led by Save the Children in partnership with Tufts University, Jhpiego, Land o' Lakes, the Manoff Group, Valid International, and Jimma University and worked in 116 *woredas* across the Amhara, Tigray, Oromia, SNNPR, and Somali regions of Ethiopia.

ENGINE partnered with Ethiopian ministries to strength existing multisector coordination and support the development and revision of nutrition policies, guidelines, and standards. It integrated instruction on nutrition into the pre-service curriculum for health and agriculture workers and built the capacity of frontline

health and agriculture workers to provide high quality nutrition services. The project's social and behavior change communication activities promoted optimal maternal, infant, and young child feeding practices and dietary diversity at the community level. Work with vulnerable households educated participants about nutrition-sensitive agriculture techniques and livestock management to increase consumption of nutrient-dense foods and augment household income. ENGINE promoted improved water, sanitation, and hygiene practices to prevent diarrhea in children and improve nutritional status, mainstreamed gender in all its activities, and implemented a rigorous research strategy to support and guide effective nutrition policies and practices.

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