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LOCAL ACTION WITH INTERNATIONAL COOPERATION TO IMPROVE AND  
SUSTAIN WATER, SANITATION AND HYGIENE SERVICES

**Integrating WASH and nutrition in market-based  
interventions: principles and results from the field**

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*This paper outlines principles for integrating market-based approaches for improving WASH and nutrition. It draws on iDE's experience implementing such programs, and specifically highlights learnings from iDE Bangladesh's program Profitable Opportunities for Food Security (PROOFS), implemented in partnership with ICCO Cooperation, BoP Inc., and Edukans. PROOFS leverages market forces to increase food security, nutrition, and water and sanitation for smallholder farmers and base-of-pyramid consumers. The program recently concluded a pilot in which Nutrition Sales Agents added a set of WASH products to their existing "basket" of nutrition-related goods. The paper highlights principles for leveraging markets to achieve outcomes in WASH and nutrition. Specific insights involve aligning sales cycles, managing different sales and distribution channels, and ensuring that product margins provide profit opportunity for businesses and sales agents. These principles are underscored by observations from the WASH-Nutrition pilot, the final results of which will be available for the WEDC Conference.*

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## **Introduction**

The WASH and nutrition sectors are increasingly interrelated, especially as evidence builds on the importance of access to WASH services in improving nutrition outcomes. As a leading implementer of market-based interventions in the WASH, agriculture, and nutrition sectors, iDE brings a unique lens to the WASH-nutrition nexus. This paper lays out the primary considerations that iDE takes into account when determining whether and to what extent WASH-nutrition integration makes sense. iDE Bangladesh is an implementing partner on a Dutch-funded program called Profitable Opportunities for Food Security (PROOFS). In this paper, we use the PROOFS program as a case study that illuminates how the various considerations inform program design and implementation, and as an example of how iDE is translating theory into practical, on-the-ground application.

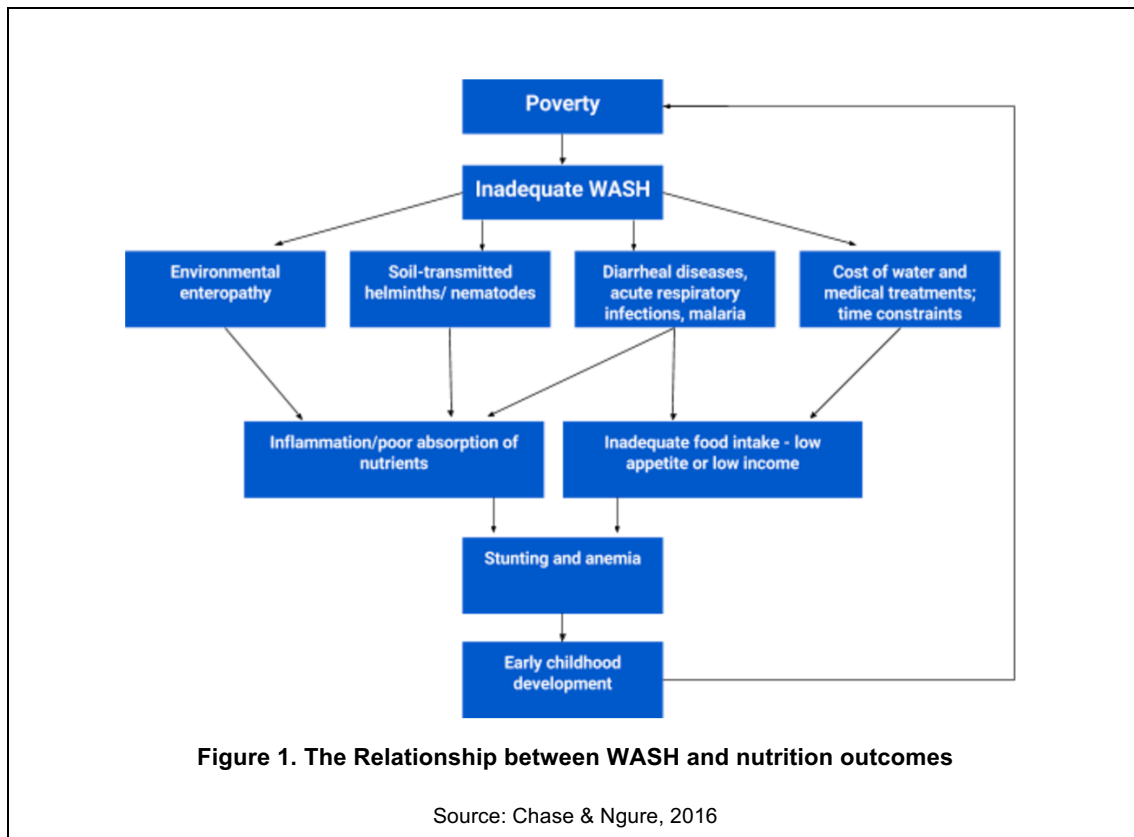
The paper starts with a general discussion, adapted from existing frameworks, on why integrating WASH and nutrition is so critical for optimizing health outcomes. The next section provides a simple taxonomy of nutrition interventions and a brief overview of the PROOFS program. The final section outlines the questions that iDE asks when contemplating WASH-nutrition integration, and provides concrete examples from PROOFS that illustrate how the answers to these questions allow iDE to maximize impact on economic and health outcomes.

## **Why integrate WASH and nutrition?**

Evidence increasingly points to the central role that adequate access to sanitation services plays in bolstering nutrition outcomes<sup>1</sup>. The figure below is an adaptation of a popular schematic in the sector for visualizing the relationship between inadequate WASH and nutrition outcomes, specifically stunting and anaemia. As the figure demonstrates, poor WASH impacts nutrition through four primary channels:

- Environmental enteropathy, or suboptimal nutrient absorption due to repeated infections of the gut.
- Soil-transmitted helminths and nematodes, or parasitic worms.
- Diarrheal diseases, acute respiratory infections, and malaria.

- High cost of water, including transportation and time costs, and the costs of medical treatments incurred for the conditions listed above.



In turn, these conditions lead to inflammation of the gut and lack of nutrient absorption, as well as inadequate food intake for health and economic reasons. Young children exposed to these elements often suffer from stunting and anaemia, which impact physical and cognitive development, ultimately affecting their future economic prospects.

### Approaches to nutrition

Nutrition programs generally use some combination of three methods: market-based approaches, subsidized “hardware” provision, and behaviour change communications. Following are brief descriptions and examples of these three approaches.

**Market-based approaches.** These interventions are most compatible with iDE’s approach to WASH. Bangladesh has the most numerous and widespread examples of organizations leveraging market forces to improve nutrition, perhaps because the private sector there is so well-developed. NGOs like BRAC and JITA maintain a network of nutrition agents, many of whom work on commission or salary selling nutrition products. Some for-profit companies like Grameen Distribution Ltd. and Social Marketing Company operate using a similar model to sell and distribute nutrition goods throughout the country.

**Subsidized “hardware” provision.** Through this approach, organizations provide free or heavily subsidized food and nutrition products to families, especially pregnant women and young children. These programs are common across the developing world, and they generally prioritize “getting the job done” quickly by providing nutrition products and services free of charge.

**Behaviour change communications.** BCC methods focus on influencing individuals’ preferences and actions, often through large-scale public campaigns or through more direct one-on-one or small-group interactions. For instance, People In Need runs a program in Cambodia that sends automated voice messages

to pregnant women and new mothers. Together, the messages comprise a “drama” that provides nutrition information through an entertaining medium. Other, more traditional approaches provide nutrition education through one-on-one conversations or classroom-style courses. This messaging is often accompanied by nutrition product sales and/or subsidized hardware provision.

### **iDE’s approach to sanitation**

iDE has developed a unique strategy for improving sanitation conditions in rural areas. The “sanitation marketing” approach identifies and fills market gaps by influencing both supply and demand for hygienic latrines. Through this approach, iDE has facilitated the sale of over 500,000 latrines in seven countries in Asia and Africa (iDE 2017).

At the outset, iDE uses the human-centred design (HCD) methodology to understand the needs and motivations of key stakeholders, including end users, private sector actors, and enabling environment professionals (iDE 2017). After gathering insights from rural users, stakeholders provide input on product prototypes, directly influencing the final design of the latrine product and business model. The end product is an affordable, desirable product that meets the needs of rural households.

In Bangladesh, iDE’s approach has been to leverage and support a relatively strong existing private sector in order to get new hygienic toilet products to market. The SaTo Pan and SanBox—plastic pour-flush latrine systems that separate waste from the environment using a simple but innovative water seal—exemplify the results of this approach. After working with American Standard to develop these products, iDE partnered with RFL, a market leader in plastics manufacturing in Bangladesh, to build the supply chains necessary to get the SaTo Pan and SanBox to market. The PROOFS program represented iDE Bangladesh’s first experience in scaling up this approach.

### **The PROOFS program**

The PROOFS program aims to leverage market forces to increase food security, nutrition, and water and sanitation for smallholder farmers and base-of-pyramid consumers. The project is funded by the Embassy of the Kingdom of Netherlands through mid-2017 and is implemented by a partner consortium consisting of ICCO Cooperation, iDE Bangladesh, BoP Inc., and Edukans. Within the four intervention areas in PROOFS, iDE implements agriculture and WASH components, ICCO Cooperation and BoP Inc. implement most nutrition activities, and Edukans implemented a vocational and educational training. The project has a target of reaching 80,000 base-of-pyramid households located in Northern (Gaibandha, Kurigram, Nilphamari, Rangpur) and Southern (Barisal, Bhola, Patuakhali) regions of Bangladesh.

PROOFS employs a Market Development Approach to deliver results by working through and strengthening private sector actors, rather than acting as a direct service provider. The central idea of this approach is that the poor are dependent on market systems for their livelihoods, and that strengthening these systems will lead to increased yields, productivity, and sales, all of which ultimately result in increased incomes for farmers. With this in mind, PROOFS organizes smallholder farmers into competitive Farm Business Groups (FBGs), which are then linked to other market actors like farm business advisors (FBAs), input dealers and retailers, extension agents, output aggregators, and company representatives who provide technical training sessions on different inputs. These actors influence and can improve the capability of farmers to produce and market their crops. The program’s theory of change holds that farmers who can sell their food produce at a better profit will be able to improve their household WASH and nutritional status, which will lead to enhanced food security. iDE communicated the primary objectives of the program to market actors, who in turn relayed this message to the households and communities with which they worked.

The project is organized around the assumption that increases in farmer income will catalyse the uptake of products, services and messages around WASH and nutrition if the households are also linked to specific value propositions that entice the BoP consumer to purchase aspirational products and services. For example, PROOFS facilitates the commercialization of improved WASH technologies, such as inexpensive hygienically sealed latrine pans, through a network of local market actors, Private Latrine Producers (PLPs). If properly used, adoption of these pans can lead to improved health and hygiene. This helps ensure that farmers who make nutrition gains do not lose nutrients through illness. Implicit in this approach is the idea that limited access to input and output markets, credit, and extension services are some of the primary constraints that negatively affect smallholder producers. Similarly, the lack of access to services regarding nutrition, water, and sanitation also leads to poor infrastructure and unhealthy habits at the household level.

As one strategy for addressing this information and services gap, the PROOFS program developed a network of Nutrition Sales Agents (NSAs) to deliver nutrition messaging as part of promoting sales of nutrition products. The NSAs are a cadre of mobile, entrepreneurial women from within the FBGs selected and trained by PROOFS team. Products include micronutrient supplements, sanitary napkins, oral rehydration solution, as well as food items such as bananas, eggs, oil and other staples. Capitalizing on the NSAs' door-to-door sales model and embedded behavioural change messaging, PROOFS undertook a two-month pilot in which NSAs added WASH products to their sales basket. These include the SaTo Pan and SanBox, which are aspirational but affordable sanitation products. For example, the market price of a SaTo Pan direct-pit toilet is roughly \$25 USD, including installation, while an offset single-pit SanBox latrine costs around \$60 USD with installation. The NSAs also sold WASH products, including with Boro Bera (latrine shelter), Filto (improved latrine pit) and Ring Paka (tubewell platform). The final results from this pilot are pending, but will potentially be available for presentation at the 2017 WEDC Conference. This paper focuses on PROOFS' experience with integrating WASH and nutrition product sales, highlighting initial results of the pilot where possible.

### **Considerations for integrating WASH and nutrition, and PROOFS examples**

iDE's approach to development is based on the philosophy that markets are the most powerful source for positive change. As such, PROOFS' work in both WASH and nutrition aims to leverage market forces to achieve desired outcomes. In the case of PROOFS, we have integrated both of these into the program in order to take advantage of potential synergies between them. Designing and implementing such an integrated program has forced us to wrestle with a number of questions that are unique to market-based approaches. In this section, we explore those questions and provide examples from PROOFS that illustrate how our answers have informed our approach to integrating WASH and nutrition in the framework of a market-based program.

**Does the nutrition approach under consideration complement the work already being done in WASH?** As outlined above, nutrition programming can take many forms. The most basic question iDE teams ask themselves is how well a specific approach to improving nutrition builds on successful market-based WASH programming. In practice, the PROOFS program has trained a team of NSAs that currently sell both nutrition and WASH products through door-to-door and group sales presentations. This method builds on iDE's experience in other country programs, where we have trained hundreds of sales agents to exclusively sell WASH products such as hygienic latrines and household water filters.

In addition to designing the program in a way that aligned with iDE's organizational core competencies, we also worked hard to ensure that our human resources were up to the task of pursuing a market-based approach to nutrition and WASH. The WASH technologies promoted by the project were designed by iDE, either exclusively or collaboratively with a partner, using the HCD approach. PROOFS field staff were trained to facilitate latrine sales and encourage latrine use, rather than engaging in traditional direct delivery activities. This approach made sense in Bangladesh, where a strong existing private sector allowed iDE and partners to adopt a market facilitation approach, rather than becoming more active market participants.

By building the business skills of PLPs, Latrine Sales Agents and NSAs, and then supporting them in the implementation of their business plans, the PROOFS program has driven substantive results. For example, NSAs have sold just over \$500,000 in nutrition and hygiene products, equating to average monthly sales of \$95. These results underscore the importance of focusing on complementary approaches when considering WASH-nutrition integration.

**How do different product and sales cycles impact program approach?** Combining WASH and nutrition product sales has required iDE to analyse how sales timing and strategies for the two types of products interact. This consideration is especially important because nutrition products are often considered low-price "fast-moving consumer goods" (FMCGs) that customers purchase across relatively short timeframes. This is in contrast to many WASH products, like latrines and tubewell platforms, that are more expensive and much longer-lasting (durable goods). In the case of PROOFS, NSAs are selling both FMCGs and durable goods, which requires them to combine different messaging to promote different products. Initial results from these activities are promising, and pilot results will be available shortly to provide a more in-depth analysis of the effectiveness of nutrition and WASH product cross-promotion

When comparing sales cycles from the three types of products on offer through PROOFS—agriculture, WASH and nutrition—purchasing patterns followed a progression from fastest-moving products to slowest-moving. As nutrition and hygiene products are required weekly or even daily, these were the first to see an immediate increase in sales. Agricultural products, which depend heavily on cropping cycles, grew in line with seasonal trends. Lastly, the PROOFS team found that sales picked up much more slowly for durable water and sanitation products, which are traditionally purchased when building a new home, hosting relatives, or when the current latrine breaks. In spite of these differences in cycles, however, the sales of all three sectors normalized within the third year of the program into the relevant weekly and seasonal cycles.

**Do the program team and other stakeholders have the capacity to manage multiple-product sales and distribution channels?** Most iDE WASH programs sell only one product or, at most, two or three. In addition, these products are typically very closely related—a similar latrine design with or without shelter, for example. As a result, iDE can focus sales and production trainings on a small set of products, and sales and distribution management remain relatively uncomplicated. Introducing new product categories adds complexity throughout the system, increasing management burden and the potential for failure. These interactions take place throughout the product lifecycle, from manufacturing to distribution to sales to after-sales service, which requires the field team to gain a precise understanding of market actors’ capacity-building needs.

In the PROOFS program, capacity building included formal trainings on technologies, sales and business development for businesses and individual sales agents, and follow-up sessions on demand generation and supply chain management. To ensure that capacity building efforts addressed real issues, the project staff developed field teams’ ability to conduct market-actor capacity assessments and tailor support accordingly for FBAs, PLPs, and FBGs. For instance, field teams identified weak business management skills as a barrier to achieving long-term FBA profitability. Based on this assessment, the teams focused on building capacity in demand generation, supply management, and record keeping, among other critical business skills.

While the PROOFS NSAs have only been selling both WASH and nutrition products since November 2016 (they previously sold only nutrition-related items), initial observations are encouraging. The agents had received previous training on nutrition concepts as well as the features of the staple products in their nutrition sales “basket.” Prior to introducing NSAs to the WASH product line, the PROOFS team provided them with additional customized capacity building to orient them to the WASH product features, bolster their capacity in sales techniques, and help them in establishing commission-based relationships with latrine producers. Cross-learning visits were also arranged for NSAs to learn key WASH messaging and sales strategies from these latrine producers. A good number of the NSAs have now integrated WASH products into their sales offerings and have begun earning commissions from sales of these products in order to diversify and supplement their earnings. As mentioned previously, more definitive pilot results analysing how well NSAs have fared while selling both types of products will be available in time for the 2017 WEDC Conference.

**Are nutrition product margins sufficient to sustain a market-based approach?** Profit margins on nutrition products can be extremely thin. This impacts private sector actors’ willingness and ability to commercialize these products, unless program efforts can enable them to generate substantial sales volume. Low margins can also act as a disincentive for commission-based NSAs to dedicate customer contact time to selling nutrition products. One angle for addressing this issue is to market nutritional products as aspirational, and to set prices accordingly. A 2014 study from Hystra found a substantial gap between prices for “premium” food products and more traditional foods, indicating a significant price space for nutrition products (Kayser, Klarsfeld & Brossard, 2014). Through implementing partner BoP Inc., PROOFS has created a set of marketing and advertising materials that tout nutrition products as aspirational goods that families can be proud to feed their families. While margins on these products vary, the effort to portray them as desirable goods has allowed private sector partners to set prices at a profitable level.

**Is one-way integration sufficient, or does two-way integration make more sense?** As discussed above, many in the nutrition sector agree that integrating WASH activities into nutrition programs delivers the biggest “bang for buck.” This is because adequate WASH is a necessary component in improving nutrition. The PROOFS program is an example of piloting one-way integration: the program trained NSAs to sell WASH products (in addition to nutrition products) to farmers whose income had increased as a result of

their involvement with FBAs. Observations and preliminary sales figures are encouraging, and final pilot results will help determine to what degree this integration has influenced program effectiveness and impact.

## Conclusion

Many of the principles that guide effective market-based approaches to development hold true when determining whether and how to implement WASH and nutrition activities together. However, these considerations become more complex as program teams attempt to manage multiple sales and distribution channels. The principles outlined above, and the on-the-ground implications for a WASH-nutrition program like PROOFS, provide one set of guidelines for decision makers and managers. It is our hope that the sector will continue to gather and disseminate lessons learned through similar experiences to continue improving the way that we design and implement WASH and nutrition programs.

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## Note

<sup>1</sup> See, for example, the annotated bibliography available at:

<https://sanitationupdates.wordpress.com/2016/06/07/wash-stunting-an-annotated-bibliography/>

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## Contact details

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