

Women & Water: A Ripple Effect

Part 2: Evidence for the Ripple Effect

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In 2017 and 2018 Ipsos and the Water & Development Alliance (WADA) undertook research to investigate the gendered "ripple effect" impacts of WASH and water stewardship programs ("water programs"). In this two-part paper, we present the findings of that investigation: Part One describes the methodological approach used to map the potential, hypothesized impacts of water programs on women; Part Two (this paper) describes the findings from the primary data collection and the status of the evidence for hypothesized impacts.

The Pathways

There is significant evidence that women receive disproportionate benefits from WASH and water stewardship programs ("water programs"). With women responsible for domestic chores such as collecting water, cooking and cleaning, as well as taking care of sick family members, access to clean water and sanitation can positively impact multiple aspects of their lives. As time collecting water and handling the health consequences of unclean water is spent elsewhere, there is the potential for women to spend time on other things, including income-generating activities.

As described in detail in Part One, a comprehensive Theory of Change (TOC) was designed based on desk research to understand the logical connections between water programs and direct impacts, hypothesized gendered direct impacts ("women & water impacts") and hypothesized empowerment impacts ("the ripple effect"). Based on the TOC, it was expected that women would benefit disproportionately from water programs through improved health, time savings, increased income, and a decrease in experience of harassment and violence. Furthermore, it was hypothesized that this could lead to empowerment impacts such as increased personal confidence, decision-making power, and participation in the community.

In this paper, we discuss the findings of the primary research that was undertaken to seek evidence to support (or refute) hypotheses set forth in the TOC.

Case Studies

As a formative research exercise to test some of the hypotheses articulated in the TOC that were, at the outset, more anecdotal than based on prior impact studies, the Ipsos team collected quantitative and qualitative data from approximately 450 female heads of household in areas in which water programs had been implemented in Nigeria, Swaziland, and Rwanda, in addition to qualitative interviews with women, men, and community leaders.

The quantitative and qualitative instruments were structured around the direct "women & water" impacts and the indirect "ripple effects" hypothesized in the TOC and corresponding indicator set. To ensure Global Grassroots, Women's Water Leadership Initiative, Rwanda: In addition to creating community access to water at 10 points, womenled pay-for-water ventures participated in multiple training modules and designed projects in their respective communities.

Nazarene Compassionate Missionaries, Water for a Generation, Swaziland: 46 water systems were installed, and programming included formation of 16 community gardens, including gardens focused on improved livelihoods for individuals living with chronic illnesses.

Women Farmer's Advancement Network, Improving Health and Livelihoods in Rural Communities, Nigeria: 38 water points were installed at schools and clinics in Northern Nigeria, and women farmers participated in agricultural training. comparability across locations, instruments were standardized, but included elements from each local context based on information from site visits and desk research.

While limited due to its retrospective nature, the findings from this study create an important foundation for understanding the relationship between women's access to water and potential empowerment benefits, and will inform future longitudinal work that seeks to build a more rigorous evidence base for the ripple effects of water programs.

The Evidence

Women are healthier

The study reinforced the already strongly-evidenced hypothesis that increased access to clean water leads to improved health for families. Two thirds (65%) of women reported that since the installation of the new water source, their household members are healthier.

"Before, we faced many problems, like having to treat the water before using it. Before, people would get sick and the clinics would be full of patients. Now, as a result of this water point, this is not a problem anymore." – Male Community Leader, Nigeria

Furthermore, improved health was linked to other outcomes in the data, including increased participation in community activities, as well as participation in new income-generating activities for the household.

Women save time

Three quarters of women (76%) reported that the new water source allowed them to save time on water collection, with half of all women saving 30 minutes or more each day (51%). In Nigeria, where the water intervention focused more on quality than on proximity, women saved an average of 9 minutes; in Swaziland, 44 minutes; and in Rwanda, where steep hills mean that even short distances take a long time to travel, women saved on average 128 minutes a day.

Most women used the time they saved on tasks that they were already doing, such as household chores (83%) or caring for children (38%). However, women also reported using the saved time for activities that contribute to household income (39%), and participating in community groups (19%).

"Before, there were many small projects that were planned but never implemented. Now there are women in this community who are engaged in different activities. There are women that make and sell many things and they still have time to take care of children and continue their domestic chores. There are other women who have farming projects. Before, they didn't have time to care for their livestock, but now they have time and they follow through on their activities no matter what." – Female Community Leader, Rwanda

In addition to being more active in the community and participating in income generating activities, women who saved time were more likely to report an increase in income, and higher self-efficacy and confidence.

Women earn money

Of the 39% of women who said they used their saved time on income generation, nearly all (91%) said this resulted in earning more income, and many (81%) reported that they expanded the income generating activities they participated in. Overall, 22% of women reported a new income-generating activity since the new water source.



"Because I now have more time, I have added the selling of second-hand clothes to my business. It is like that for other women in the community. Now that they have more time, they have learned a trade like bead making or making soap and local perfume." – Female Head of Household, Nigeria

Women with new income generation were more likely to report access to new financial services in a female household member's name. The data also showed a significant relationship between a new income-generating activity and the woman having a say in how that income is allocated, likely indicating improved financial independence and decision-making power.

Women are safer

Women's reports of improved safety were particularly notable. When collecting water prior to the water point installation, women faced a variety of threats, from safety issues like wild animals and rough terrain, to harassment including verbal abuse and rape. One third of women (34%) reported a decrease in safety or harassment issues while collecting water since using the new water source, and 33% of women reported a decrease in community harassment of women not directly related to water collection.

"This water point brought safety: safety from the sleepless nights, to the morning walks and falls when climbing the hill, and harassment at the river, like we experienced before." – Female Head of Household, Rwanda

Women who reported that safety and harassment issues had decreased were more likely to be active in their community, report an increase in household and community respect for women, and have higher self-efficacy, demonstrating that even the safety brought by thoughtfully-placed water and sanitation facilities can have empowering effects.

Women are more engaged

Women's access to training and participation in community groups also improved with the new water sources. A quarter of women (25%) received training of some type – a fairly common practice in water interventions, particularly where water resource management or WASH committees are established.

"I joined a Stokvel (savings group) and an association where women save money towards building projects. However, sometimes we still have water challenges so there isn't always enough time for that." – Female Head of Household, Swaziland

These women received empowerment effects from training, as they were more likely to be active in the community, participate in community and household decision-making, and report an increase in community and household respect for women.

Women are participating more in their community

Having more time and experiencing less harassment makes it easier for women to participate in their community: one third of women (34%) said they are more active in the community now than before the new water source was installed.

"Things have changed: women work not only in their homes, but now since the burden of collecting water has saved them time they are able to work outside their homes. They engage in some of the activities that used to be for men only. These activities are no longer seen as taboo for women to do. It would not be surprising to find women at a construction site, carrying and fetching building materials, or mixing and measuring construction materials. The community is no longer held up by the thought that women are incapable." – Male Community Leader, Rwanda

When men see women in new roles, or speaking up when they haven't before, this can lead to increased respect for women and their capabilities.

Women have more decision-making power

The ability to make independent decisions is a core component of women's empowerment. More than a third of women (37%) said that they have taken on new household decision-making responsibilities since the new water source. The same number (37%) reported that it is now easier to serve as a leader in the community, and more than half of women (55%) perceive that other women in their community have become more active in leadership positions since the new water source.

"In this community the chief is a woman, major decisions are made by a woman. Yes, women are more intelligent than men: when you look at the schools, the schools that are headed by women usually perform better." – Male Community Leader, Swaziland

When the status quo in the household and community is to include women in decision-making, it becomes more likely that women's concerns will be heard and incorporated into collective decision-making.

Women feel more respected

Overall, 30% of women reported that women in their household are more respected by men now than before the new water source, and those who reported increased respect also showed higher self-efficacy than those who did not. Additionally, 32% of women reported that men's respect for women in the community increased , and this was similarly related to reports of higher self-efficacy.

"The fact that men queue alongside women at the water point, tells a lot about respect they have for women. This is unlike before, where men would fight the women off to get to the water first." – Male Head of Household, Rwanda

Decreased harassment and improvements in respect potentially represent changing social norms toward a state where the full inclusion of women in the community may be possible.

Conclusions

The findings strongly suggest that the "women & water" and the "ripple effect" impacts of water programs as hypothesized in the TOC are well-founded. Despite the limitations of this small, retrospective, effort, there are clear relationships between time savings, income generation, community participation, and decision-making power, which in turn drive positive self-perceptions, self-confidence, and increased respect afforded to women. These connections, while substantial and compelling, warrant more in-depth research in the future.

It is also clear that contextual circumstances dictate the extent to which women experience empowerment benefits from water programs. For example, a culture that is open to women's participation in public life may provide a more likely environment for empowerment: in northern Nigeria, where water collection responsibility falls mostly on children





and married women generally do not leave their family compounds for religious and cultural reasons, not all women experienced time savings benefits or were able to increase their community participation.

In another example, it is unclear whether improved skills and income generation would occur without the explicit incorporation of skills training into the water program. In Rwanda, where training in social entrepreneurship and interpersonal skills was part of the broader water programming, women were more likely to report that they had gained both skills and confidence, and that they were passing those on to other members of the community.

The study findings do not necessarily support a conclusion that there is a direct link between water programming and the empowerment of women. Rather, they present the possibility that water programs can create an enabling environment for women's empowerment. As women's lives are multifaceted and complex, so are the benefits they receive from water, and these benefits must be considered in a holistic, multi-dimensional way to understand how water programs can truly generate empowerment.

PATHWAY (-	→) WOMEN & WATER (-	
+ HEALTH	Access to WASH and water is linked to improved reproductive health and personal hygiene, decreased gender-based violence, household cleanliness, and reduced disease risk.	Improved household health and water access increases personal confidence and enables women to spend more time on income generation, education, housework, rest and leisure, and participating in the community.
\$ INCOME	Lower water costs, water-related trainings, and time savings create opportunities for women to save money and seek income-generating activities and entrepreneurship.	Income generation and greater control of assets improve decision-making power within the household and lead to confidence, respect, and and the potential for a shift in gender roles.
	Women and girls can be most affected by negative coping mechanisms during food shortages. A stable food supply from improved intigation technologies has a disproportionately positive effect on their nutrition.	Food security and nutrition is closely linked to health. Improved nutrition enables women to spend more time pursuing education and other economically empowering activities.
SAFETY & SECURITY	Women and girls collecting water often face safety and barassment issues when water or sanitation sources are not placed thoughtfully within the community.	Lower risk of harassment and violence improves freedom of movement, which supports participation in education, employment, and leadership roles. Lower stress and fear increase women's ability or willingness to participate in the community and improve self-confidence.
EDUCATION	Adequate WASH access in school improves student health and supports menstrual hygiene management. This increases attendance, attainment, and achievement of girls in school.	Educated girls have better job prospects and a greater capacity to generate income, which can improve their decision-making power in the household and community.
LEADERSHIP & SKILLS	Including women and girls in WASH interventions, such as water users associations, leads to skills development, leadership opportunities, and enhances their role and voice in important elements of the intervention.	Leadership in the intervention strengthens women's power within their households and community, and weakens taboos against women's control over resources.
TIME SAVINGS	Close proximity to water resources reduces time spent on water collection by women and girls, who are often responsible for collecting water.	Saved time can be spent on various activities, including education, income generation and entrepreneurship, rest and leisure, and community participation. This can lead to increased income, self-efficacy, confidence, and leadership.
	The pathways and impacts combined challenge traditional gender norms and support a cultural shift towards an enabling environment for women's Dispersive	in perceived male respect for wernen in communities of workers

Ipsos

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About WADA

The Water and Development Alliance (WADA) partners with companies, communities, and governments to address challenges and harness opportunities connected to water. WADA's enterprise-driven approach brings together business capabilities of the Coca-Cola system with USAID's premier development expertise to create solutions that help develop thriving communities, grow stable economies and strengthen resilient environments around the world.

About USAID

USAID is the world's premier international development agency and a catalytic actor driving development results. For more than 40 years, USAID has worked closely with governments, communities, and water sector experts to improve water supply and sanitation service delivery while supporting community-led sustainable management of water resources in developing countries.

About Coca-Cola

Coca-Cola is the world's leading total beverage company with operations in over 200 countries. Together with its bottling partners, Coca-Cola is committed to responsible water stewardship, community prosperity, and the empowerment of individuals across their global areas of operation. Through targeted investments and the deployment of its technical expertise, Coca-Cola creates shared value around the world.