Women in the WASH Market
Improving Targeting for Future Programs

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Water SHED
Water, Sanitation & Hygiene Enterprise Development

Background

Formative Research (2013)

WaterSHED's research assessing women's economic empowerment in rural WASH markets found **gender-specific challenges hindering women's access** to the resources necessary to start and grow a latrine hardware supply business.

WEwork Collective (2016)

Training on personal and professional skills:

- Financial literacy

- Business management

- Gender training

- Personal leadership

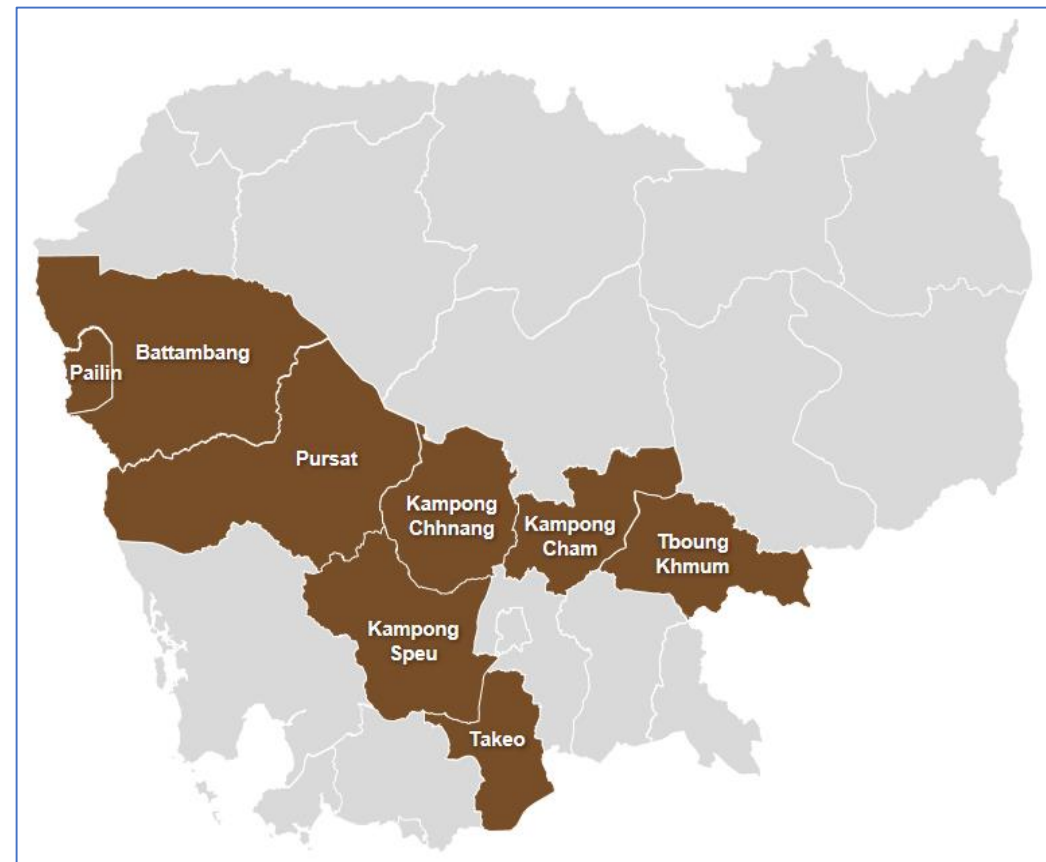- WASH-specific topics

- Opportunities in WASH markets

Figure 1. Provinces targeted by the WEwork Collective

Data showed that the approach generated interest in WASH income-generating activities.

However, it proved challenging to convert that interest into entrance, retention, and satisfaction in the WASH market

Research Objectives

1. **Identify a set of characteristics in** women to predict current WASH job status, retention, and satisfaction in WASH income-generating activities (IGAs)

2. Determine the extent to which **construction workers** and **community healthcare workers** fit this set of characteristics

3. **Understand the constructs** i.e. attributes of IGAs by which women evaluate IGAs, form preferences, & decide which IGAs to engage in

Methodology

152 (70%)

Women in the WEwork Collective Program

37 (17%)

Non-WEwork Collective Program Construction Workers

29 (13%)

Non-WEwork Collective Program Community Health Workers

Study design

Quantitative research phase

Random selection of 152 WEwork women

Convenience sampling of 66 non-WEwork women construction workers and community healthcare workers

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Data collection: Quantitative Survey

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Data analysis: Correlational analyses & predictive modeling to create women in WASH profiles

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Data analysis: Comparison of women in WASH profiles to characteristics of construction workers and community healthcare workers

Qualitative research phase

Purposive selection of 15 WEwork women

Convenience sampling of 20 non-WEwork women construction workers and community healthcare workers

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Data collection: Repertory Grid Interviews

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Data analysis: Content analysis to determine importance and dominance of constructs

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Triangulation: Check qualitative and quantitative results against one another, as well as against published and grey literature to formulate recommendations

Quantitative results

Involvement in WASH IGAs

Women who knew latrine sales agents they could ask for advice, felt they had latrine sales agent technical knowledge, could imagine being a latrine sales agent, made work-related decisions on their own, and did not feel vulnerable to harassment at work were more likely **to be involved** in WASH IGAs.

Involvement in WASH IGAs

Table 2. Predictive binary logistic regression model of current WASH job status

Women involved in a WASH IGA at the time of the study (n=75)* vs. all other women (n=139) [†]

Predictor	β	SE β	Wald's χ2	df	P	OR	Lower	Upper
Constant	-5.016	1.027	23.843	1	<0.001	0.007		
Knew someone who was a latrine sales agent and could ask them for advice	0.723	0.189	14.593	1	<0.001	2.061	1.422	2.988
Felt she had sufficient latrine sales agent technical knowledge	0.575	0.173	11.058	1	0.001	1.778	1.266	2.495
Could imagine being a latrine sales agent	0.485	0.176	7.594	1	0.006	1.624	1.150	2.294
Did not make work-related decisions on her own because she did not want to be responsible for the wrong decision	-0.293	0.151	3.769	1	0.052	0.746	0.555	1.003
Felt vulnerable to harassment at work, as a woman	-0.345	0.129	7.103	1	0.008	0.709	0.550	0.913
Model evaluation			χ2	df	p			
Hosmer–Lemeshow			13.367	8	0.100			

Somer's D = 0.674. Goodman & Kruskal's Gamma = 0.676. Kendall's Tau-a = 0.308. C-statistic = 83.7%. Selection method: Forward selection with likelihood ratio.
*1 missing value in 'Know people who have been a latrine sales agent and could ask them for advice." [†]2 women were unemployed; 1 woman refused to answer

Retention in WASH IGAs

Women were more likely **to stay** in WASH IGAs if they:

- Felt they had sufficient latrine sales agent technical knowledge
- Perceived that the majority of their time each week was spent on income-generating activities

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Retention in WASH IGAs

Table 3. Predictive binary logistic regression model of WASH job retention

Women involved in a WASH IGA at the time of the study (n=76) vs. Women previously involved in a WASH IGA (n=45) [†]

Predictor	β	SE β	Wald's χ2	df	p	OR	Lower	Upper
Constant	-3.472	1.058	10.779	1	0.001	0.031		
Felt she had sufficient latrine sales agent technical knowledge	0.389	0.171	5.186	1	0.023	1.476	1.056	2.063
Perceived that the majority of their time each week was spent on income-generating activities	0.637	0.234	7.410	1	0.006	1.891	1.195	2.991
Model evaluation			χ2	df	p			
Hosmer–Lemeshow			5.032	6	0.540			

Somer's D = 0.427. Goodman & Kruskal's Gamma = 0.469. Kendall's Tau-a = 0.201. C-statistic = 71.4%. Selection method: Forward selection with likelihood ratio.

Satisfaction in WASH IGAs

It was not possible to create a predictive model of satisfaction as **all women involved in WASH IGAs reported being satisfied** with their jobs.

Comparing profiles of Women in WASH & Community Healthcare Workers

	Women in WASH	Community Healthcare Workers
Networks	Know people in the WASH sector to ask for advice[†] Feel that observing others' success would give them confidence to try new IGAs*	**Less** likely to know people in the WASH sector to ask for advice[†] **Less** likely to feel that observing others' success would give them confidence to try new IGAs
Time	Feel that they spent majority of their time on work-related activities*	**Less** likely to feel that they spent majority of their time on work-related activities*
Family support	Report having families that worked together to increase productivity, share income Report having family members who helped with domestic duties[†]	**Less** likely to report having families that worked together to increase productivity, share income[†] **Less** likely to perceive that family members would help with domestic duties[†]
Personal agency	Feel they need to consult husbands before making work-related decisions Feel confident communicating with men and women as well as speaking in public	**Similarly**, feel they need to consult husbands before making work-related decisions **Similarly**, feel confident communicating with men and women as well as speaking in public
Skills & Knowledge	Perceive they have 'enough' technical knowledge to own a latrine business* Perceive they have 'enough' technical knowledge to be a latrine sales agent[†] Perceive they have financial management skills useful for business[†] Feel they had few skills that can be used for IGAs or business[†]	**Lower** perceived technical knowledge to own a latrine business* **Lower** perceived technical knowledge to be a latrine sales agent[†] **Lower** perceived financial management skills useful for business[†] **Similarly**, feel they had few skills that can be used for IGAs or business
Gender norms	Feel that they are physically able to do any job men can do Perceive that men are more likely to persevere in work or business challenges Feel they need to provide adequate reason to their families to be away from home	**Less** likely to feel they are physical able to do any job men can do[†] **Similarly**, perceive that men are more likely to persevere in work or business challenges **Similarly**, feel they need to provide adequate reason to their families to be away from home
Attitude toward WASH IGAs	Can imagine themselves traveling to other communities, going door-to-door, or holding public events to sell latrines[†] Imagine themselves owning or managing a business[†]	**Less** likely to imagine themselves traveling to other communities, going door-to-door, or holding public events to sell latrines[†] **Similarly**, imagine themselves owning or managing a business

All attitudes were assessed on a 5-point, Likert-type response scale where 1 was 'Agree to the greatest extent' and 5 was 'Disagree to the greatest extent,' *Two-sample t-test p-value ≤ 0.05, [†]Welch's t-test p-value ≤ 0.05 where data were non-normally distributed

Comparing profiles of Women in WASH & Construction Workers

	Women in WASH	Construction Workers
Networks	Know people in the WASH sector to ask for advice[†] Feel that observing others' success would give them confidence to try new IGAs*	**Less** likely to know people in the WASH sector to ask for advice[†] **Less** likely to feel that observing others' success would give them confidence to try new IGAs[†]
Time	Feel that they spent majority of their time on work-related activities*	**Similarly**, feel that they spent majority of their time on work-related activities
Family support	Report having families that worked together to increase productivity, share income Report having family members who helped with domestic duties[†]	**Similarly**, report having families that worked together to increase productivity, share income **Similarly**, report having family members who helped with domestic duties
Personal agency	Feel they need to consult husbands before making work-related decisions Feel confident communicating with men and women as well as speaking in public	**Less** likely to feel they need to consult husbands before making work-related decisions[†] **Less** likely feel confident communicating with men, women and speaking in public[†]
Skills & Knowledge	Perceive they have 'enough' technical knowledge to own a latrine business* Perceive they have 'enough' technical knowledge to be a latrine sales agent[†] Perceive they have financial management skills useful for business[†] Feel they had few skills that can be used for IGAs or business[†]	**Similarly**, perceive they have 'enough' technical knowledge to own a latrine business **Lower** perceived technical knowledge to be a latrine sales agent[†] **Similarly**, perceive they have financial management skills useful for business **Similarly**, feel they had few skills that can be used for IGAs or business
Gender norms	Feel that they are physically able to do any job men can do Perceive that men are more likely to persevere in work or business challenges Feel they need to provide adequate reason to their families to be away from home	**Similarly**, feel that they are physically able to do any job men can do **Similarly**, perceive that men are more likely to persevere in work or business challenges **Less** likely to feel they need to provide adequate reason to their families to be away from home[†]
Attitude toward WASH IGAs	Can imagine themselves traveling to other communities, going door-to-door, or holding public events to sell latrines[†] Imagine themselves owning or managing a business[†]	**Less** likely to imagine themselves traveling to other communities, going door-to-door, or holding public events to sell latrines[†] **Less** likely to imagine themselves owning or managing a business[†]

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Qualitative results

Family Support & Domestic Duties

Both WEwork and non-WEwork women reported '**home-based job**,' '**travel**,' and '**family help**' as three of the most important constructs for considering what IGA to do.

"[I can] work at home because it is hard to travel away from home as I [am] responsible to look after my family so if I work away from home, who is going to take care [of] my children? Moreover, not only taking care [of] my children, but I can do other work at home as well."

(RGI with WEwork woman, WASH retailer)

Amount and stability of income

Women from all study groups expressed the importance of earning income to support their families. Some women reported considering the **amount of income** they could earn in certain jobs compared to others.

"*I have nothing so only working as a construction worker that could get income in every 6 days [...] If I sell cake, sometimes it might be left over, but if I work like this [as a construction worker], I will definitely get income every 6 days.*"

(RGI with non-WEwork woman, construction worker)

Physical ability and energy

Interviewees of all groups described a job that requires a lot of physical strength as 'heavy' and 'exhausting.' Some expressed that '**as a woman**,' or '**as they get older**,' they would not be able to do 'heavy' work.

"As a woman, I have no [physical strength]...my spouse [...] he's always gone, [so] it's just me alone. [...] [Job] that uses little physical strength is easy for [me], even if it makes small [amount] of money [...] because I can still manage [that job] even though [I] have little physical strength."
(RGI with non-WEwork woman, community healthcare worker)

Contributing to the Community

Women also frequently expressed a desire to **reduce poverty** or **improve health** in their community through their work.

"[Making villagers have good health is] important [...] because [I] would like to help children have good health and help mothers reduce poverty [in their families]."

(RGI with non-WEwork woman, community healthcare worker)

Discussion & Recommendations

WASH market jobs allow women the flexibility and personal freedom needed to **balance an IGA** with **traditional responsibilities** at home.

Recommendation 1

Frame WASH jobs as a solution for women who need to balance earning income and domestic duties.

Recommendation 2

Tailor targeting strategies and program design to appeal not only to women, but also to their families.

Recommendation 3

Incorporate personal leadership training in program activities to promote women's participation in work-related decision making.
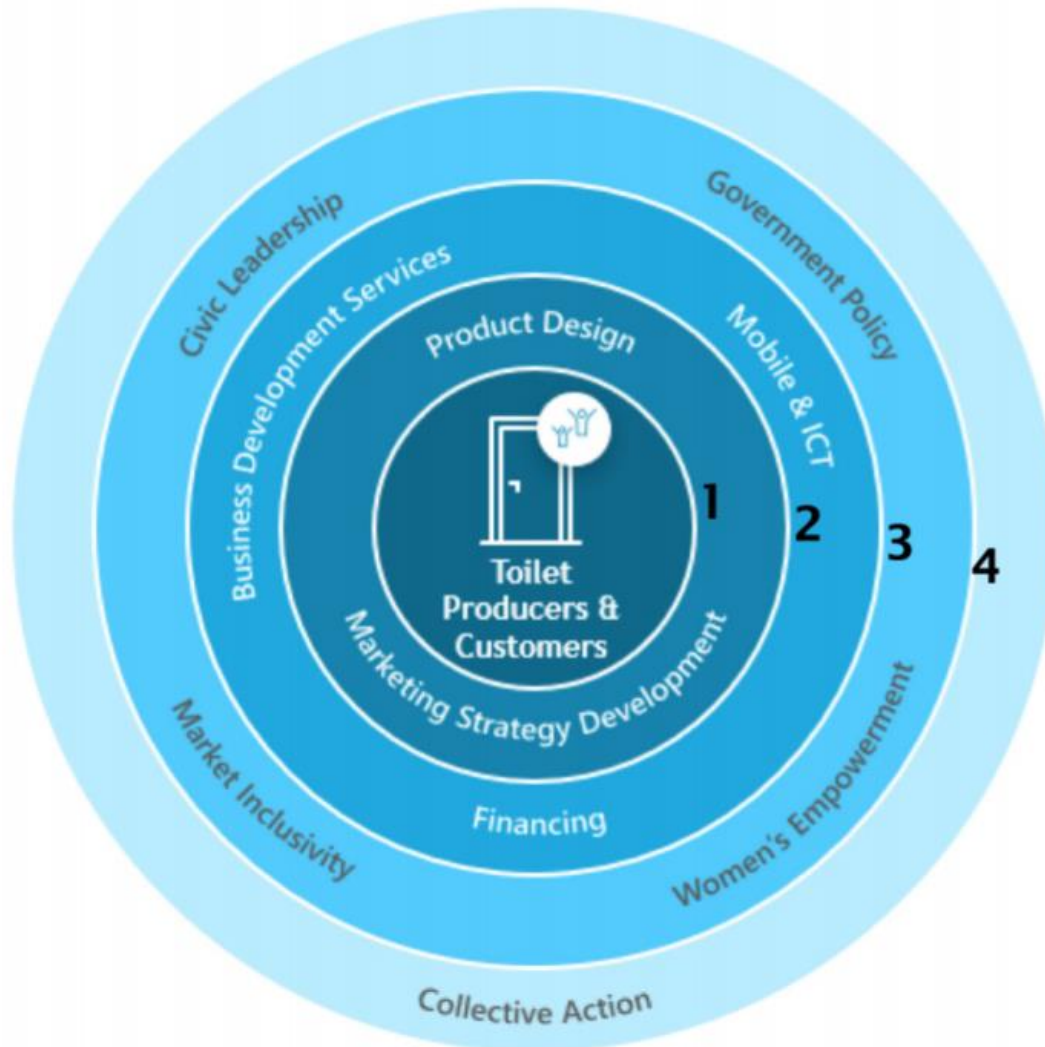
Recommendation 4

Ensure women being targeted have access to resources associated with entrance and retention in WASH (i.e., time, capital, knowledge/skills, and family help).

Recommendation 5

Consider women construction workers as a potentially viable target group for participation in the WASH market.

Looking Forward

How can we be intentional about gender mainstreaming in various parts of the WASH system?

Thank You

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