



## Women in the WASH Market Improving Targeting for Future Programs

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“ខ្ញុំជាស្ត្រី  
ជោគជ័យ  
ចុះអ្នកវិញ?”  
ចូលរួមជាមួយយើង!  
អាចកម្រិត និងសហគមន៍  
ស្ថិតក្នុងថែមតា។

# 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

**Data collection:** Quantitative Survey

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

**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

**Data collection:** Repertory Grid Interviews

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

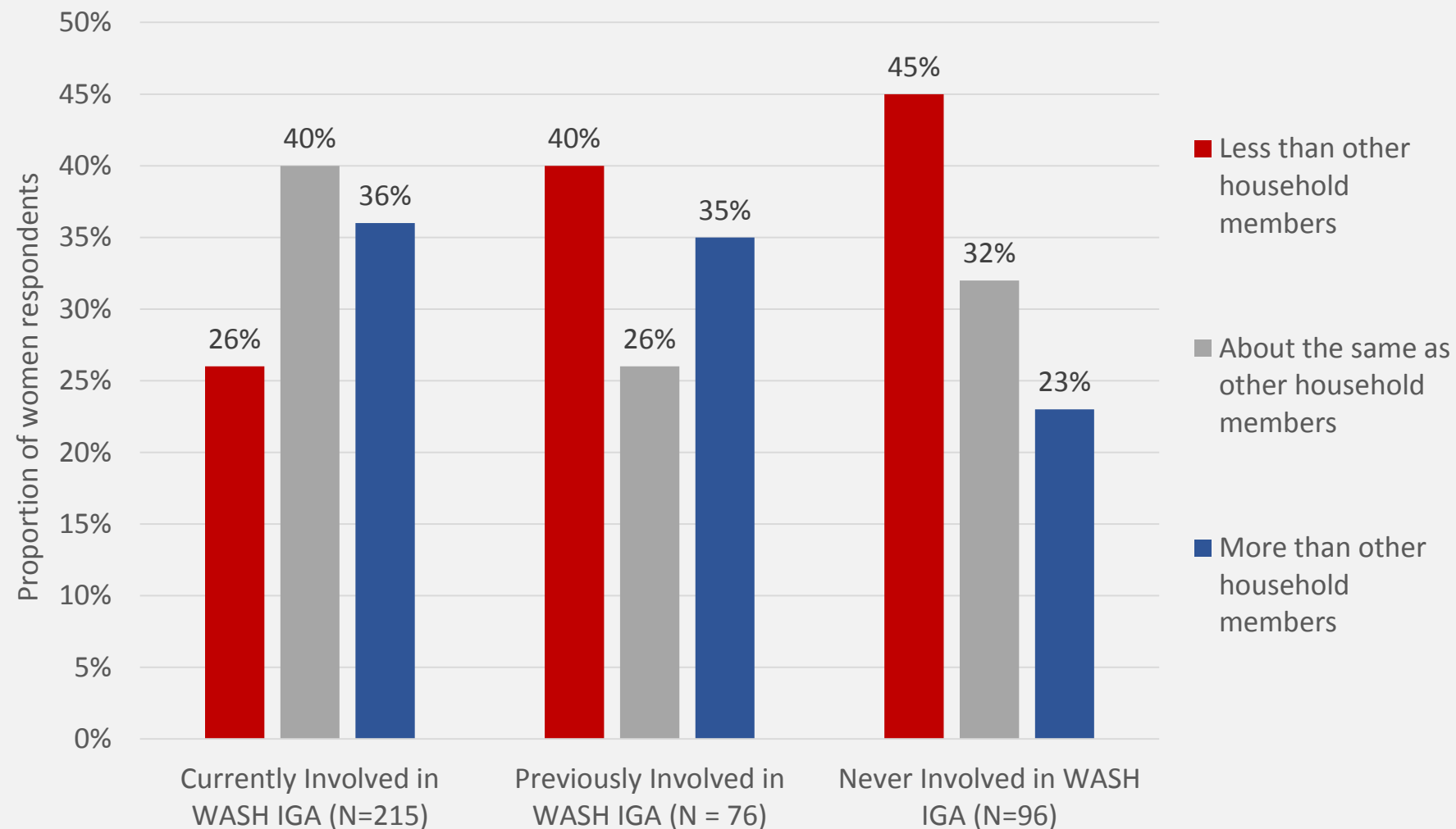
**Triangulation:** Check qualitative and quantitative results against one another, as well as against published and grey literature to formulate recommendations



# Quantitative results

# WASH IGAs & Contribution to Household Income

**Figure 1.** Degree of contribution to household income, by WASH IGA status



The majority (76%) of women in WASH reported that they contributed to household income equally or more than other household members.

# Personal Attitudes of Women in WASH

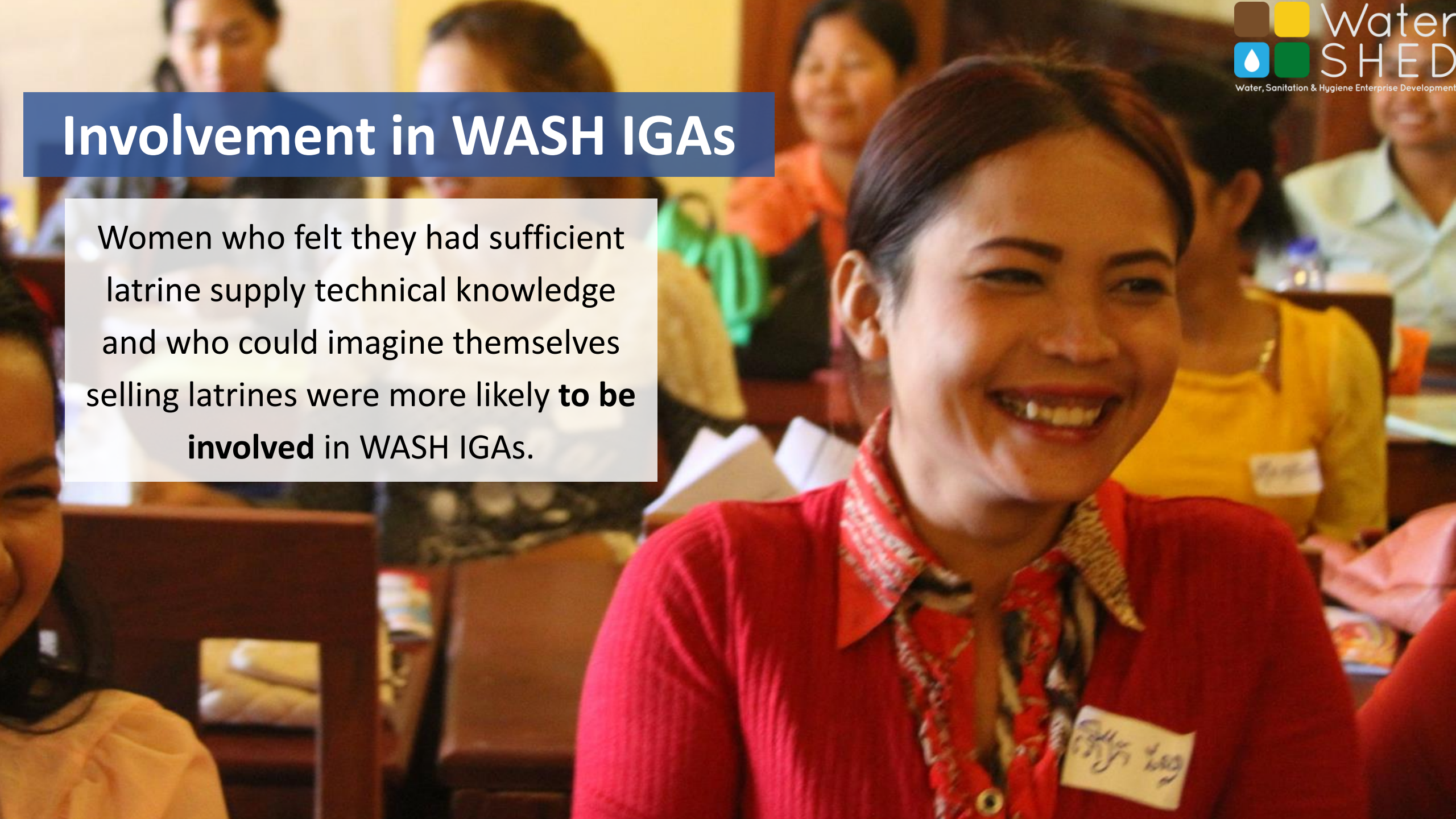
Women in WASH were more likely to perceive certain **limiting gender norms** than women not in WASH IGAs

WEwork women in WASH IGAs were <b>more likely</b> than those not in WASH IGAs to...	
Networks	Know people in the WASH sector to ask for advice <sup>†</sup> 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*
Family support	Report having families that worked together to increase productivity, share income <b>Report having family members who helped with domestic duties<sup>†</sup></b>
Personal agency	<b>Feel they need to consult husbands before making work-related decisions</b> Feel confident communicating with men and women as well as speaking in public
Skills & Knowledge	<b>Perceive they have 'enough' technical knowledge to do WASH jobs<sup>†*</sup></b> Perceive they have financial management skills useful for business <sup>†</sup> Feel they had few skills that can be used for IGAs or business <sup>†</sup>
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 <b>Feel they need to provide adequate reason to their families to be away from home</b>
Attitude toward WASH IGAs	<b>Imagine themselves traveling to other communities, going door-to-door, or holding public events to sell latrines<sup>†</sup></b> Imagine themselves owning or managing a business <sup>†</sup>

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, <sup>†</sup>Welch's t-test p-value ≤ 0.05 where data were non-normally distributed

## Involvement in WASH IGAs

Women who felt they had sufficient latrine supply technical knowledge and who could imagine themselves selling latrines 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 vs. all other women)

Predictor	$\beta$	SE $\beta$	Wald's $\chi^2$	df	P	OR	Lower	Upper
Constant	-4.34	1.11	15.29	1	0.000	0.013		
<b>Latrine supply technical knowledge</b>	2.17	0.68	10.30	1	0.001	8.780	2.330	33.092
<b>Could imagine selling latrines</b>	2.25	1.09	4.23	1	0.040	9.460	1.110	80.594
Model evaluation			$\chi^2$	df	p			
Hosmer–Lemeshow			1.873	2	0.392			

Somer's D = 0.677. Goodman & Kruskal's Gamma = 0.841. Kendall's Tau-a = 0.190. C-statistic = 83.90%. Selection method: Forward selection with likelihood ratio.

## Retention in WASH IGAs

- Women were more likely to stay in WASH IGAs if they:
- Had families that helped with domestic duties
  - Felt they had sufficient latrine supply technical knowledge
  - Could imagine themselves selling latrines

# 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 vs. Women previously involved in a WASH IGA)

Predictor	$\beta$	SE $\beta$	Wald's $\chi^2$	df	p	OR	Lower	Upper
Constant	-1.25	0.45	7.78	1	0.005	0.013		
<b>Family helps with domestic duties to enable work</b>	1.05	0.43	5.88	1	0.015	2.856	1.223	6.669
<b>Latrine supply technical knowledge</b>	1.31	0.44	8.81	1	0.003	3.706	1.560	8.804
<b>Could imagine selling latrines</b>	1.04	0.44	5.65	1	0.017	2.825	1.200	6.653
Model evaluation			$\chi^2$	df	p			
Hosmer–Lemeshow			4.472	6	0.613			

Somer's D = 0.402. Goodman & Kruskal's Gamma = 0.492. Kendall's Tau-a = 0.191. C-statistic = 70.01%. Selection method: Forward selection with likelihood ratio.



A woman with dark hair is standing in a doorway. She is wearing a white lace-trimmed top with a colorful floral pattern and a blue and yellow striped shawl draped over her shoulders. The background is a dark interior space with some light-colored panels.

## 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 <sup>†</sup> Feel that observing others' success would give them confidence to try new IGAs*	<b>Less</b> likely to know people in the WASH sector to ask for advice <sup>†</sup> <b>Less</b> 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*	<b>Less</b> 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 <sup>†</sup>	<b>Less</b> likely to report having families that worked together to increase productivity, share income <sup>†</sup> <b>Less</b> likely to perceive that family members would help with domestic duties <sup>†</sup>
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	<b>Similarly</b> , feel they need to consult husbands before making work-related decisions <b>Similarly</b> , feel confident communicating with men and women as well as speaking in public
Skills & Knowledge	Perceive they have 'enough' technical knowledge to do WASH jobs <sup>†*</sup> Perceive they have financial management skills useful for business <sup>†</sup> Feel they had few skills that can be used for IGAs or business <sup>†</sup>	<b>Lower</b> perceived technical knowledge of WASH jobs* <b>Lower</b> perceived financial management skills useful for business <sup>†</sup> <b>Similarly</b> , 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	<b>Less</b> likely to feel they are physical able to do any job men can do <sup>†</sup> <b>Similarly</b> , perceive that men are more likely to persevere in work or business challenges <b>Similarly</b> , feel they need to provide adequate reason to their families to be away from home
Attitude toward WASH IGAs	Have difficulty imagining themselves traveling to other communities, going door-to-door, or holding public events to sell latrines <sup>†</sup> Imagine themselves owning or managing a business <sup>†</sup>	<b>Less</b> likely to imagine themselves traveling to other communities, going door-to-door, or holding public events to sell latrines <sup>†</sup> <b>Similarly</b> , 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, <sup>†</sup>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 <sup>†</sup> Feel that observing others' success would give them confidence to try new IGAs*	<b>Less</b> likely to know people in the WASH sector to ask for advice <sup>†</sup> <b>Less</b> likely to feel that observing others' success would give them confidence to try new IGAs <sup>†</sup>
Time	Feel that they spent majority of their time on work-related activities*	<b>Similarly</b> , 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 <sup>†</sup>	<b>Similarly</b> , report having families that worked together to increase productivity, share income <b>Similarly</b> , 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	<b>Less</b> likely to feel they need to consult husbands before making work-related decisions <sup>†</sup> <b>Less</b> likely feel confident communicating with men, women and speaking in public <sup>†</sup>
Skills & Knowledge	Perceive they have 'enough' technical knowledge to do WASH jobs <sup>†*</sup> Perceive they have financial management skills useful for business <sup>†</sup> Feel they had few skills that can be used for IGAs or business <sup>†</sup>	<b>Similarly</b> , perceive they have 'enough' technical knowledge to do WASH jobs <b>Similarly</b> , perceive they have financial management skills useful for business <b>Similarly</b> , 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	<b>Similarly</b> , feel that they are physically able to do any job men can do <b>Similarly</b> , perceive that men are more likely to persevere in work or business challenges <b>Less</b> likely to feel they need to provide adequate reason to their families to be away from home <sup>†</sup>
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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, <sup>†</sup>Welch's t-test p-value ≤ 0.05 where data were non-normally distributed

# 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)

A photograph of a man and a woman sitting at a wooden table, looking down at a document or book. The man is on the left, wearing a light blue and white checkered shirt. The woman is on the right, wearing a red and white striped long-sleeved shirt. A clear plastic water bottle with a blue cap is on the table in front of her. The background shows a brick wall and a green wall.

## *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

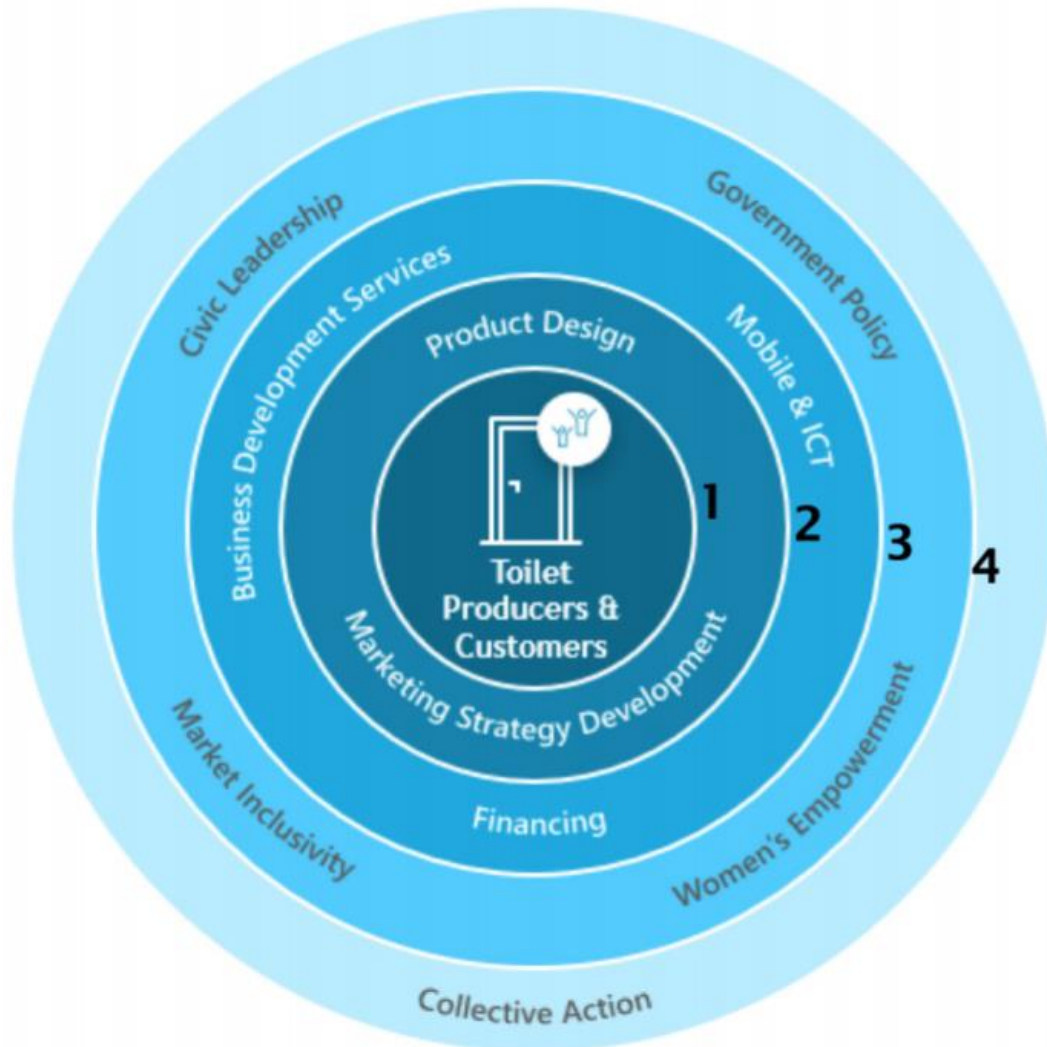




## Recommendation 3

Women construction workers should be considered 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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