REPORT OF WOBA CAMBODIA LATRINE AND WATER VERIFICATION

July 2019 – October 2021

Women-Led Output-Based Aid (WOBA) Vietnam

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east meets west
A PROGRAM OF THRIVE NETWORKS

Water For Women

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1. INTRODUCTION

WOBA Cambodia is a project designed and implemented by Thrive/East Meets West (EMW) to address challenges and inequities in Cambodia's rural water, sanitation and hygiene (WASH) sector. It is funded by the Australian Department of Foreign Affairs and Trade (DFAT) through the Water for Women Fund over 4.5 years (June 2018 to December 2022).

To address the program's two objectives, and align with the Fund's goal of improved health, gender equality and wellbeing of Asian and Pacific communities through inclusive sustainable WASH, WOBA Cambodia has three implementation components and targets:

- 3,750 poor households connect to piped water schemes – their connections will be co-financed through a competitive output-based pro-poor subsidy intervention.
- Improved access to hygienic sanitation in rural communities, with hygienic latrines constructed by 15,000 poor and 15,000 non-poor households, with 4,000 of these in the poor/GESI category.

WOBA Cambodia is implemented in the rural areas of nine provinces which have different geographical and socio-economic conditions. These provinces are Prey Veng, Kampot, Kracheh, Pursat, Battambang, Kampong Cham, Kampong Speu, Kampong Chhnang, and Tboung Khmum.

Results are monitored through HH surveys, administered via Akvo Flow, a mobile-based monitoring system. In Cambodia, the following verifications were conducted as of 30 October 2021:

- EMW completed 5,325 verifications of HH's newly built latrines
- EMW completed 128 verifications of HH's new piped water connections.

This report presents the results of these verifications in Cambodia.

2. DATA CLEANING AND ANALYSIS

2.1 Extract from Akvo Flow

Verification is conducted using Akvo Flow to record survey results. All verification results are extracted from Akvo Flow, except for water connection verification, which was sent by Cambodia WOBA team, then input into SPSS software for analysis.

2.2 Cleaning of Data

The following process was undertaken as part of data cleaning for latrine verification:

- Data on main decision-makers in building new latrines were recoded into the following categories: Both husband and wife; Wife/ Mother; Husband/ Father; Children; and Other
- Data on latrine cost were recoded into ranges: Under $100; From $100 to $200; From $200 to $500; From $500 to $1000; and Above $1000
- •Data on whether HHs wash their hands after defecation were grouped into the following: No; Yes with soap; and Yes without soap. The final dataset contains 5,325 HHs (n=5,325).

For water verification: Data on family size was recoded into the following categories: 5 or less than 5 members; 5-10 members; 11-20 members; More than 20 members. No other cleaning was undertaken. The final dataset contains 128 HHs (n=128).

2.3 Statistical Tests

Five separate steps were carried out on each of the cleaned datasets:

- Frequency counts for each question in the verification survey (variable) to determine their distribution within the sample.
- Bivariate analysis (cross tabulations) to identify differences between economic status of HHs and some variables
- Bivariate analysis (cross tabulations) to identify differences between types of beneficiary groups and some variables
- Bivariate analysis (cross tabulations) to identify differences between HHs with or without disabled members and some variables
- Chi-square independent test to determine whether there are any statistically significant association or group differences for some variables.

2.4 Limitations

EMW Cambodia manually conducted the verifications, and respondents were any person of the family who was available to answer. The lack of a robust quality assurance checks, as well as inherent limitation of this method of data collection, presents some data integrity and validity risks. The results should be interpreted with caution.

3. DEMOGRAPHIC INFORMATION

The demographic data of each verification type is summarised as below. Total percentage may not add up to 100 due to due to rounding.

	Number of Respondents	Percentage of Total Respondents (%)
Sex of the Respondent		
Female	2,361	44
Male	2,964	56
Total	5,325	100
Whether Respondent is the Head of Household		
Yes	3,011	57
No	802	15
Missing Data	1,512	28
Total	5,325	100
Economic Status		
Non-Poor	1,094	21
Poor 1	1,943	37
Poor 2	2,288	43
Total	5,325	101
WOBA Beneficiary Group		
Non-Poor	225	4
Poor/Near Poor	1,743	33
Poor plus GESI	657	12
Missing Data	2,700	51
Total	5,325	100
HH with PWD		
Yes	311	6
No	4,562	86
Missing Data	452	8
Total	5,325	100

Table 1. Demographic information of respondents, Cambodia latrine verification (n=5325)

Of the 311 HHs with PWDs, 97% are poor, 3% is non-poor. Of the 4562 HHS without PWDs, 86% are poor, and 14% are non-poor. In this sample, both HHs with and without PWDs appear to be skewed towards poor, and the missing responses could be the reason for this skew.

	Number of respondents	Percentage of total respondents
Head of household		
Husband/Father	69	54
Wife/Mother	56	44
Son	1	1
Daughter	2	2
Total	128	101
Family size		
5 or less than 5	78	61
6 to 10	45	35
11 to 20	2	2
More than 20	3	2
Total	128	100
Economic status		
Poor 1	43	34
Poor 2	69	54
Missing data	16	13
Total	128	101
HH with PwD		
Yes	10	8
No	102	80
Missing data	16	13
Total	128	101

Table 2. Demographic information of respondents, Cambodia water connections verification (n=128)

4. RESULTS OF ANALYSIS FOR LATRINE VERIFICATION

Design of Latrine

Of the 3,810 HHs that responded to the question on the design of their latrines, 91% built only latrine, 7% built latrine combined with bathroom, and 2% built latrine with kitchen and bathroom.

Costs and Source of Finance

Latrine cost was known for 95% of verified HHs, and slightly more than half spent under $100 to build their latrines (2,631 out of 5,325, 52%). A further 27% (1,372 HHs) reported to have spent between $100 and $200 and 18% (947 HHs) spent between $200 and $500 to fund their latrine construction.

96% (5,122 out of 5,321 HHs) reported they self-funded their latrine building.

Decision Making

Of the 5,212 HHs where information on main decision maker of latrine building was recorded, more than half reported that the decision was jointly made by husband and wife (2,857 out of 5,212, 55%). Female (wife/mother) is more likely than male (husband/father) to be named as the main decision maker (See Figure 1).

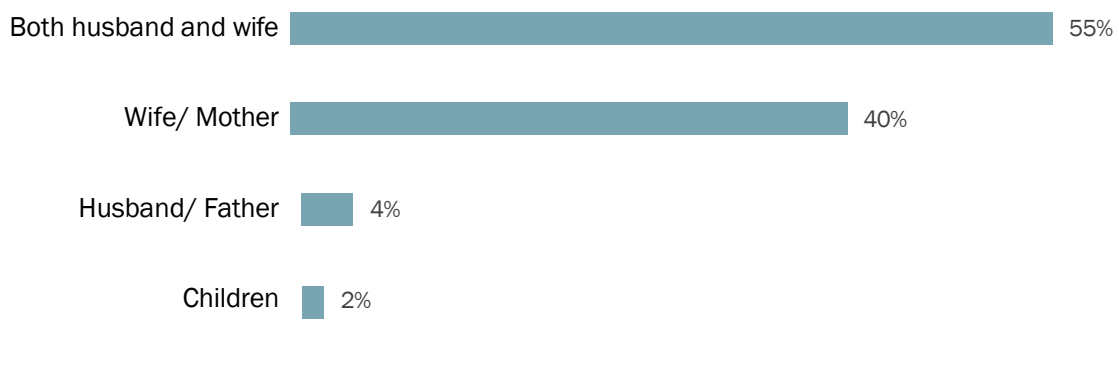

Figure 1: HH's main decision makers in building latrines

A cross tabulation was run for the beneficiary group and decision maker (n=2625). There was a significant association between the two variables (see table 3).

			Who is the main decision-maker in building new latrine of household?				Total
			Both husband and wife	Children	Husband/ Father	Wife/ Mother	
WOBA beneficiary group	Non-Poor	Count	194	0	6	25	225
		% within economic status	86.2%	0.0%	2.7%	11.1%	100.0%
		% within decision-maker	14.7%	0.0%	5.0%	2.2%	8.6%
		% of Total	7.4%	0.0%	0.2%	1.0%	8.6%
	Poor/Near Poor	Count	737	9	97	900	1743
		% within economic status	42.3%	0.5%	5.6%	51.6%	100.0%
		% within decision-maker	56.0%	18.4%	80.2%	79.1%	66.4%
		% of Total	28.1%	0.3%	3.7%	34.3%	66.4%
	Poor and GESI	Count	386	40	18	213	657
		% within economic status	58.8%	6.1%	2.7%	32.4%	100.0%
		% within decision-maker	29.3%	81.6%	14.9%	18.7%	25.0%
		% of Total	14.7%	1.5%	0.7%	8.1%	25.0%
Total		Count	1317	49	121	1138	2625
		% within economic status	50.2%	1.9%	4.6%	43.4%	100.0%
		% within decision-maker	100.0%	100.0 %	100.0%	100.0%	100.0%
		% of Total	50.2%	1.9%	4.6%	43.4%	100.0%

Table 3. Cross tabulation between WOBA beneficiary group and Person who was the main decision-maker in building new latrine.

Chi Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	283.418[a]	6	0.000
Likelihood Ratio	285.397	6	0.000
Linear-by-Linear Association	0.082	1	0.775
N of Valid Cases	2625		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 4.20.

Latrine Likes and Dislikes

Of HHs with information available on what they appreciated about their built latrines (2,626 out of 5,325 HHs, 49%), over half of HHs stated latrine costs as a sole reason for their satisfaction (1,388 out of 2,626 HHs, 53%). This is likely because 97% of HHs who provided this answer were poor.

37% of the 2,626 HHs reported a combination of all seven qualifies: (1) Nice, modern, discreet, convenient, (2) Clean/Cool, (3) Odourless, (4) Convenient, near the house, easy to access, and (5) Safe (i.e. preventing diseases), (6) Usable for long time, and (7) Good Price.

None of the HHs had any complaint about their latrines.

Handwashing Facility and Practice

Where HH's availability of handwashing facilities was known (5,084 out of 5,325 HHs, 96%), almost all HHs reported they had handwashing facilities (5,075 out of 5,084 HHs, 100%).

Among 5,081 HHs (95%) who answered whether they wash their hands after defecation, 97% said they wash their hands with soap, and a further 2% said they wash their hand without soap.

Only 10 HHs (<1%) said they did not wash their hands after defecation.

5. RESULTS OF ANALYSIS FOR WATER CONNECTION VERIFICATION

Water Sources

Of 128 HHs in Cambodia, the main water source prior to piped water connection for domestic uses, including drinking/eating, was drilled well (See figure 2). This continues to be HH's alternative water source for use in tandem with piped water. Water from lake and pond represents the second largest proportion of alternative water source to piped water.

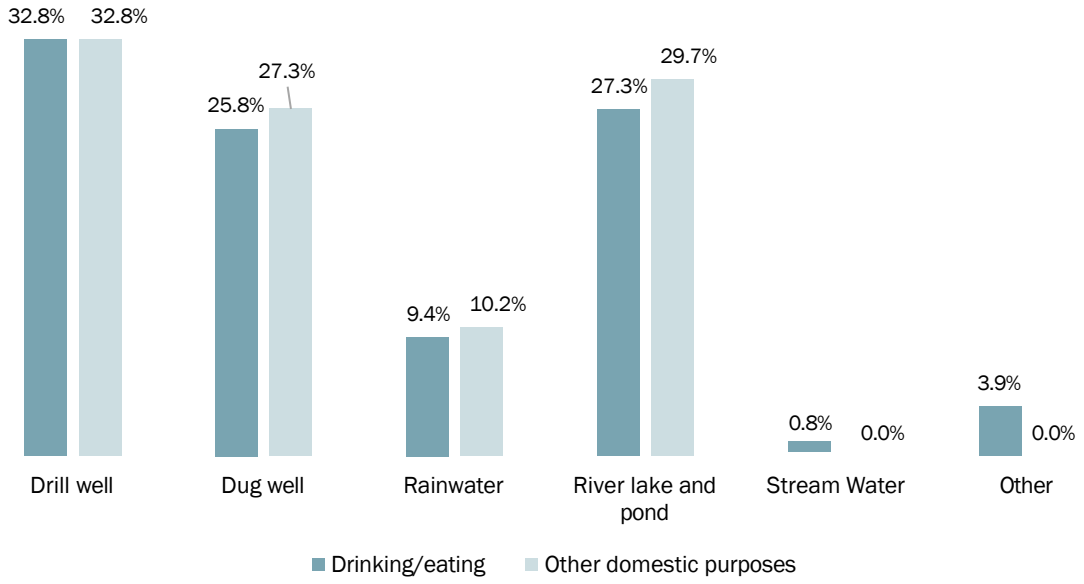

Figure 2. Proportion of HH by sources of water and purpose before pipe installation (Cambodia)

Time Fetching Water

Of 128 HHs in Cambodia, the main water source prior to piped water connection for domestic uses, including drinking/eating, was drilled well (See figure 2). This continues to be HH's alternative water source for use in tandem with piped water. Water from lake and pond represents the second largest proportion of alternative water source to piped water.

Decision Maker

Figure 3 shows the distribution of decision makers by family role. Unlike the finding from latrine verification, more than half of the verified HHs (66 out of 128 HHs, 52%) reported that their wife or mother make the decision on using the clean water service. Proportions of joint decision making i.e husband and wife was 24% while male decision maker e.g., husband or father was 20%.

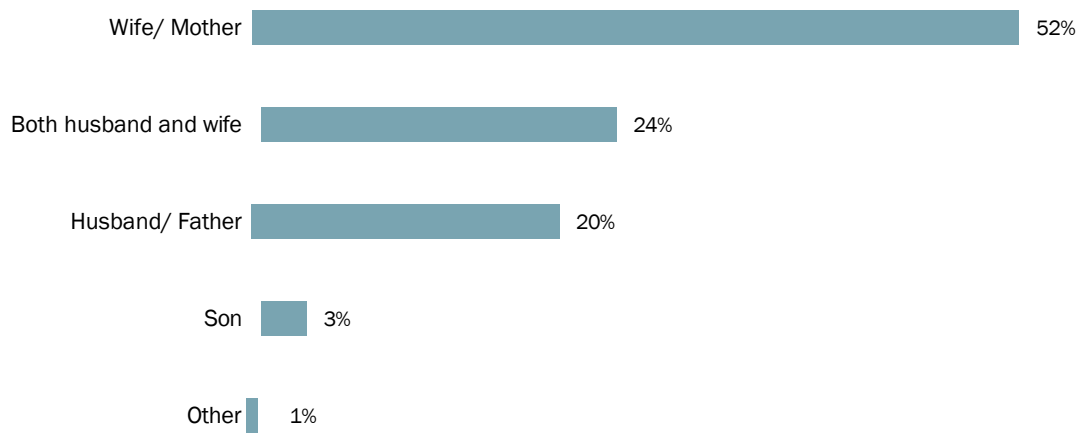

Figure 3. Main decision maker for HH's connections

Quality of Water

The vast majority of verified HHs reported no problem with their piped water quality.

90% reported a strong enough water pressure. 96% did not find their water cloudy. 66% reported no strange taste with their water

Treatment of Water

Water treatment methods were known for all cases. The most common method is boiling (46%), followed by buying water bottle (21%) and applying no treatment (21%).

Type of Latrine Used

HH's type of latrine used were known for all cases. Around seven out of 10 HHs have access to improved sanitation facility and drink water from improved sources, as they reported using hygienic latrine at the time of having access to piped water.

Handwashing Facility

74% (91 out of 128 HHs) had a handwashing station with soap, and 26% (33 out of 128 HHs) had a handwashing station without soap.

6. RECOMMENDATIONS FOR FUTURE VERIFICATION

- All verification forms should be developed with a gender focus, allowing for disaggregation of their output results by gender and economic status and monitoring of gender differences in WASH access and use.
- Verification teams should be trained to ask the questions in the same way.