

1 Background

- Only 18% of rural Cambodians have access to improved sanitation, with three-quarters of the rural population practicing open defecation (2008).
- Lack of sanitation contributes substantially to the high number of child deaths from diarrhea and diseases related to malnutrition resulting from diarrhea.
- WaterSHED Cambodia, a non-governmental organization, conducts sanitation marketing campaigns focusing on recruiting and building the capacity of low-cost latrine suppliers and sales agents starting in 2009.
- Despite the low cost of the latrines (US\$35-\$45), the primary constraint cited by potential purchasers is a lack of cash to buy one.
- Incorporation of microfinance into the Water, Sanitation, and Hygiene (WASH) sector, primarily through the use of microlending for household purchases of water treatment and sanitation products, has been tested in several countries, including Bangladesh, Vietnam, India, and Peru.
- These microfinance-WASH integrated projects suggest integration can and does work if the conditions are right.

2 Research Objectives

- This study examines the impact of having credit officers from microfinance institutions (MFI) attend sanitation marketing meetings and offer loans for latrine purchase.
- A household survey was used to assess villagers' attitudes towards microfinance and sanitation.

3 Methods

Research Design

- Cluster randomized design based on observed 2009 government commune (administrative areas) characteristics.
- Communes in Kampong Speu or Kampong Cham provinces with 1) active sanitation marketing suppliers as of June 2011 and 2) the presence of at least one of the two participating MFIs, Amret and PRASAC, were eligible for treatment selection.
- Communes were matched based on existing commune level latrine access, roof type (poverty measure), and previous exposure to the WaterSHED sanitation marketing campaign.

Implementation

- We designated 37 treatment communes, where microfinance credit officers were to be invited to all sanitation marketing village meetings; 102 communes acted as control areas.
- Phase I of the study period was October 1, 2011 to March 31, 2012.

Implementation (continued)

- Phase II is currently in progress.
- Phase I had two participating MFIs, Amret and PRASAC, both with extensive history in Cambodian microfinance industry.
- Ongoing monitoring data were used to evaluate meeting attendance and latrine uptake at the commune level.
- Credit officers reported loan uptake from the meetings.

Household Survey

- Two to three individuals were selected from each sanitation marketing meeting to complete a household survey assessing attitudes towards microfinance and sanitation.
- The fifth, 15th, and (if applicable) 25th names from an attendance roster were eligible to complete the survey.

Analyses

- Examined meeting attendance with credit officers to determine outreach of WASH-MFI integration.
- Examined loan application data to calculate number of loan applications and percent of meeting attendees applying for any loan from the attending MFI credit officer.
- Analyzed household survey responses to examine associations between latrine ownership and microfinance, latrine financing options, and attitudes towards WASH-microfinance integration,



Figure 2: Latrine components ready for delivery. Source: WaterSHED Asia

4 Results

MFI Integration with Latrine Marketing Campaign

- 96 marketing meetings were attended by MFI representatives in 34 of the 37 treatment communes in a six-month period
- Total of 2,884 attendees at the MFI-WASH meetings; 45% of attendees heard presentations from Amret, and 55% of attendees heard presentations from PRASAC.
- Intense coordination was required to ensure that credit officers attended sanitation marketing meetings. This involved coordination at all levels of both the WaterSHED marketing campaign and the MFIs.

Loan Uptake

- Preliminary data indicate that during the 67 meetings with available loan application information, 101 attendees (5.1% of total attendees) applied for a loan for a latrine.
- Mean of 1.5 loan applicants per meeting (std.dev = 3.5 applicants).
- 43% of loan applicants applied for a group loan (versus individual loan).

Household Survey Results

Latrine Ownership

- Survey respondents were more likely to be male, had average household size of 5.6 members and a mean of 3.8 of 6 selected assets.
- Households who currently own a latrine (14.3%) are larger, are more likely to own a television, mobile phone, motorcycle, wardrobe, and bed set than households who do not have a latrine.
- Households with a latrine are less likely to be current MFI clients; they are also less likely to have an outstanding loan and have ever been an MFI client, although these differences are not statistically significant.
- Motivations for purchasing and the types of financing used by current latrine owners are shown in Figure 3. Five percent of current latrine owners had used a loan from an MFI to purchase their latrine.
- Results are similar for respondents who purchased a latrine at the meeting at which they were surveyed, and for respondents who intended to buy at some point in the future.

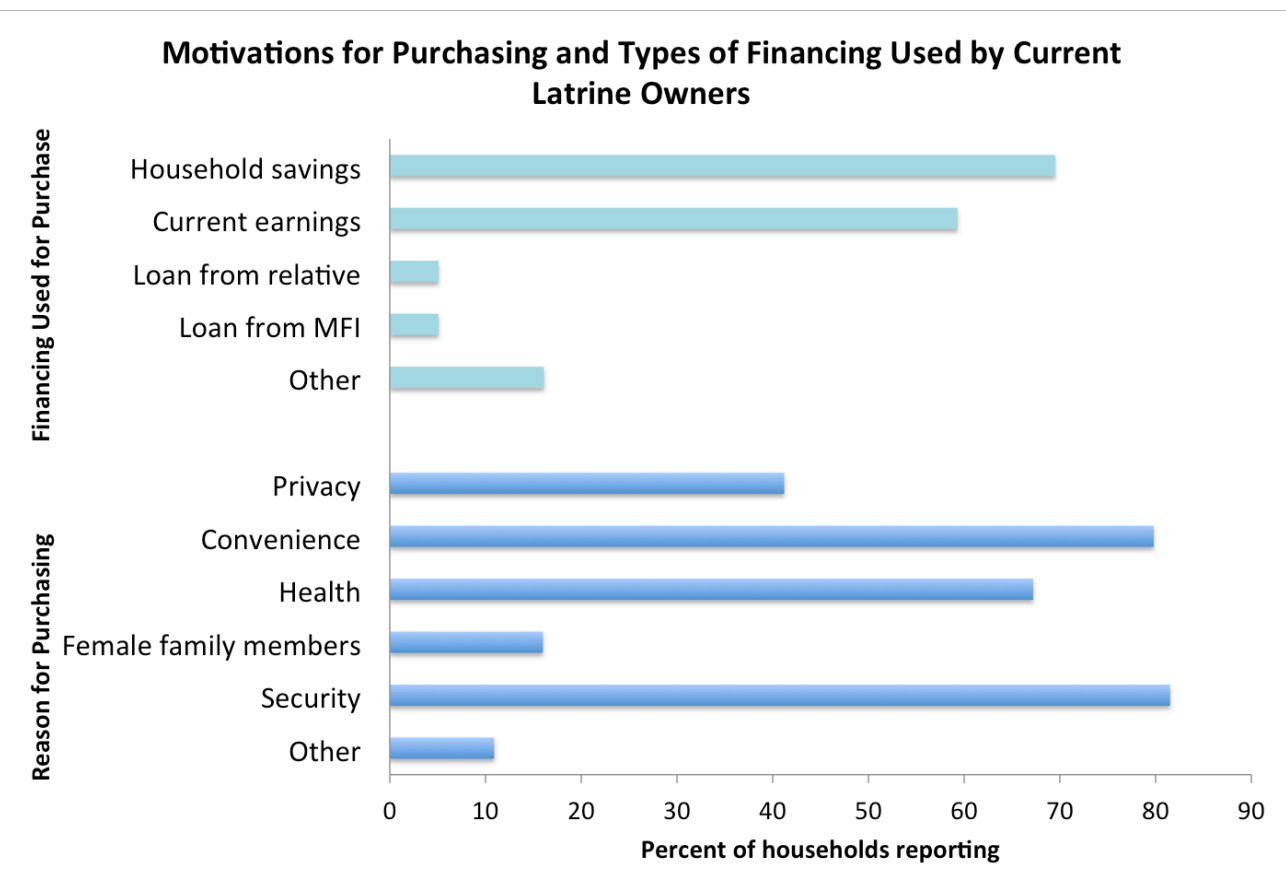


Figure 3: Calculations based on households who have a pour-flush latrine (N=134). Respondents could choose more than one reason, so totals may add to more than 100%.



Figure 2: Completed latrine with shelter Source: WaterSHED Asia

Table 1: Descriptive statistics of survey respondents

	Overall (N= 935)	Household currently owns pour-flush latrine		
	No (N= 801)	Yes (N= 134)	P-value	
Mean (Standard Deviation) or %				
Female respondent	31.7	31.5	32.8	0.75
Number of household members	5.6 (2.1)	5.6 (2.0)	6.1 (2.4)	0.003*
Proportion of household members who are female	0.5 (0.2)	0.5 (0.2)	0.5 (0.2)	0.43
Proportion of household members who are children	0.2 (0.2)	0.2 (0.2)	0.2 (0.2)	0.5
Household owns television	65.9	62.9	83.6	<0.001*
Household owns mobile phone	75.6	73	91	<0.001*
Household owns bicycle	78.9	78.2	83.6	0.15
Household owns motorcycle	53.8	48.8	83.6	<0.001*
Household owns wardrobe or cabinet	38	33.7	63.4	<0.001*
Household owns bed set	63.3	60.2	82.1	<0.001*
Total selected items household owns	3.8 (1.5)	3.6 (1.5)	4.9 (1.1)	<0.001*
Currently MFI client (n=921)	28.3	30	18.3	0.006*
Outstanding loan from any source (n=917)	38.3	39.5	30.8	0.06
Current or former client of MFI (n=911)	39.7	40.2	36.9	0.48

* p<0.05.

Microfinance

- Using regression analysis and controlling for asset measures and household size, current MFI clients are 7.2 percentage points less likely to be latrine owners. There is no significant difference in latrine ownership considering ever having been a client of an MFI (current and past) or having an outstanding loan from any source.
- Among those who do not have a latrine but intend to purchase in the future (91.3% without latrines), 13.5% had ever thought about using a loan from an MFI to purchase a latrine.
- For those who had considered using an MFI loan to purchase a latrine, the most commonly cited reasons for not having taken a loan were 1) existing loan, 2) inability to repay, and 3) high interest rates.
- Of those who saw the presentation from an MFI credit officer, 27.4% reported either taking a loan for a latrine or intending to take a loan for a latrine in the future.
- Among those who do not currently have a latrine and do not intend to purchase a latrine in the future (n=39), 12.8% say that they would consider buying a latrine if they knew they could take a loan from an MFI to pay for it.

5 Conclusions

- There is significant interest among community members in using loans to purchase latrines, as measured by loan applications; however, often these customers do not meet the lending criteria established by the MFIs.
- A high proportion (27.4%) of those who saw the presentation from the credit officer either applied for a loan for a latrine or intend to apply for one in the future. This is much higher than the 5% of current latrine owners who had financed their latrine with an MFI loan.
- For those that do not intend to purchase a latrine, knowing that getting a loan from an MFI is an option may impact the decision for a minority of these households.
- Integration of microfinance with an existing sanitation marketing campaign requires time and personnel devoted exclusively to coordination of marketing and lending activities to ensure that the intended integration occurs.
- In the absence of direct financial incentives for the MFI to participate, a commitment on the part of MFIs to social programming was found to be particularly important as a motivation for continued MFI participation.
- Important areas for future exploration include measuring the effectiveness of continued sanitation marketing and microfinance integration over a longer time period as well as aligning the loan products available at marketing meetings more closely with the cost of latrines.

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Figure 1: Map of Cambodia with study regions highlighted. Source: mapsof.net