

¹ WaterSHED, Phnom Penh, Cambodia, Email: sophea@watershedasia.org

² Dept. Civil & Environmental Engineering, University of California Davis

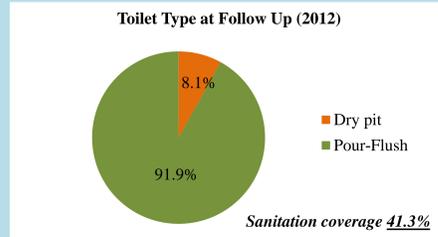
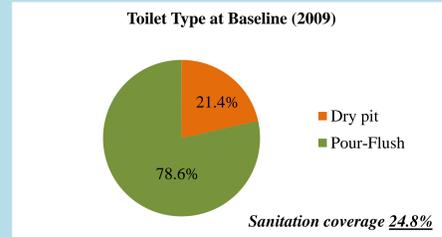
Sanitation Marketing

Over the past 5 years, sanitation marketing has emerged as a key methodology to develop supply chains for sanitation hardware and services and to increase consumer demand for safe sanitation solutions. This follows the development of Community-Led Total Sanitation (CLTS), which has gained widespread recognition for making significant progress in creating a community-driven push to achieve Open Defecation Free (ODF) status.

Cambodia is a low-income country and 80 percent of the population live in rural areas. In 2008, approximately 77 percent¹ of rural Cambodians did not have a toilet. The Water, Sanitation and Hygiene Marketing (WASH-Marketing) project implemented by WaterSHED aims to rapidly increase access to rural sanitation. These data are from WaterSHED and its partners sanitation marketing program.

Sanitation Coverage Gains from Marketing

Starting in 2009, WaterSHED and its partners introduced a sanitation marketing program in Kampong Speu Province, and at the same time began a longitudinal survey to characterize the change in coverage at the village level. Between 2009 and 2012 the sanitation coverage rate increased from 24.8% to 41.3%, (66.6 percent increase) across a random sample of 36 villages in Kampong Speu province, Cambodia. This 16.5 percentage point increase over two years of implementation compares to an estimated average annual background rate of increase in coverage of 2.3 percentage points per year in the target area as measured over the previous four years. Of the sample villages, 12 of the sample villages had been exposed to CLTS prior to the marketing intervention, and an additional 9 were exposed over the project period.



Baseline survey in 2009² and village level survey in 2012³

A baseline survey conducted in 2009 involved a village-level investigation of sanitation coverage rates for a randomly selected sample of 36 villages from a total of 537 villages in the target area, as well as a household-level investigation of demand behavior, practices and preferences for a choice-stratified random sample of 'latrine owner' and 'non-owner' households within the sample villages. The village survey questionnaire was designed to capture baseline sanitation coverage data at the village level. Village-level data was collected on latrine coverage, including number of functioning pour-flush and dry pit latrines; number of non-functioning/broken latrines.



The 2012 village level survey involved a household survey of sanitation coverage in the same 36 baseline villages in the project target area. The data collected included functioning latrine type (dry pit or pour-flush latrine), CLTS and non-CLTS triggered villages, villages having had a sanitation marketing sales event, villages with a resident sales agent, sales commissioned village chiefs, stable or increasing latrine prices, whether ODF was achieved, and level of poverty in the village.

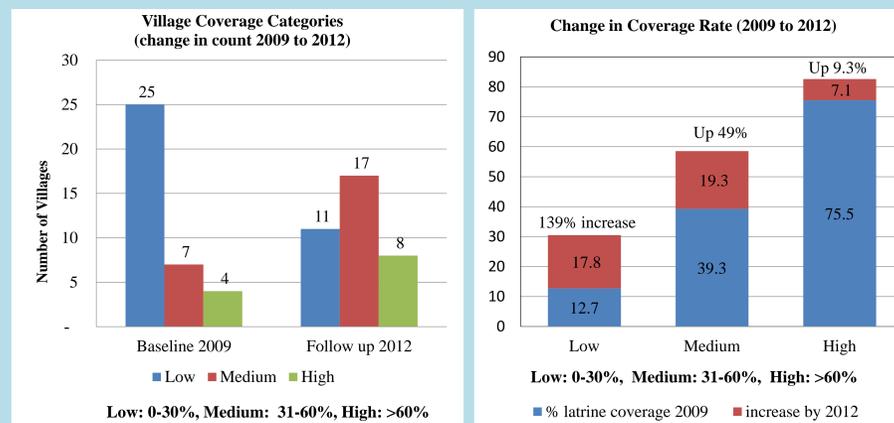
Data analysis:

These data, collected during the baseline survey in 2009 and the follow-up survey in 2012, were analyzed and summarized. Important results highlighted include:

- Change in sanitation coverage rate
- Coverage rates in CLTS triggered and non-triggered villages
- Villages with and without other sanitation interventions
- Latrine types: dry-pit versus pour-flush latrines
- Negative trends in coverage experienced by some villages
- Characterization of villages that achieved 100 percent sanitation access
- Characterization of villages with coverage changes deemed as small, moderate, or large

UNC Water & Health Conference, Oct 29 - Nov 2, 2012, Chapel Hill, NC, USA

The increasing sanitation coverage rate

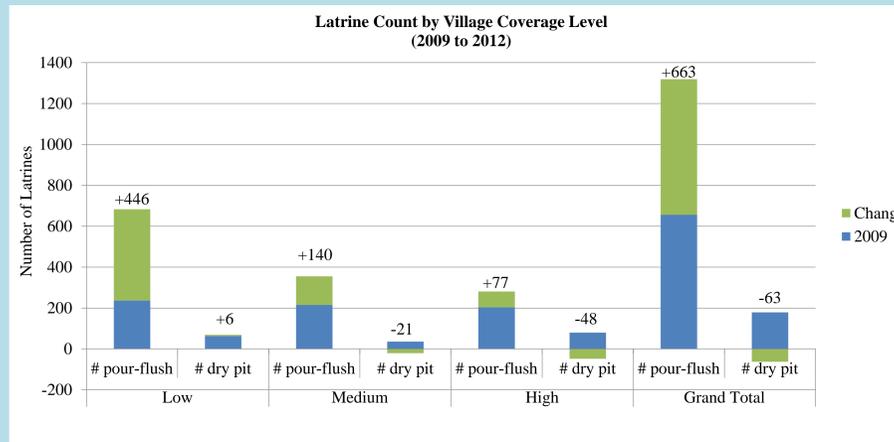


The coverage rate of CLTS triggered villages and non-CLTS triggered villages

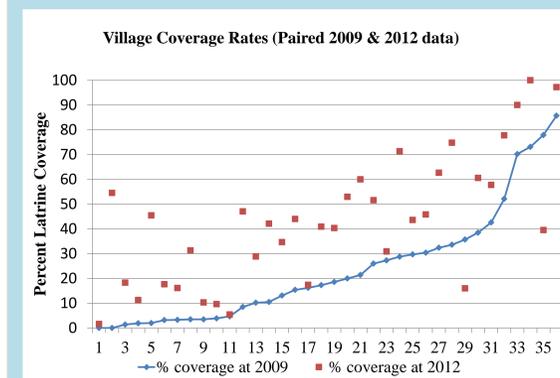
		% latrine coverage 2009	% point increase	% latrine coverage 2012
All 36 villages		24.8	16.5	41.3
Overall	Non-CLTS village	15.6	16.1	31.7
	CLTS village	31.4	16.9	48.3
Low	Non-CLTS village	7.9	16.1	24.0
	CLTS village	17.7	19.5	37.2
Medium	Non-CLTS village	42.6	15.2	57.7
	CLTS village	38.7	20.0	58.7
High	Non-CLTS village	70.2	19.8	90.0
	CLTS village	78.0	1.1	79.2

Overall the percentage point increase seems to be the same for both CLTS and non-CLTS villages, however CLTS appears to be more favorable in the villages with low/medium coverage than the villages with high coverage. Dry pit abandonment following CLTS may explain the very low change found in CLTS villages with previously high coverage, as compared to non-CLTS 'High' villages.

Dry-pit versus pour-flush latrines



Negative trends in changes in coverage



The trend shows that there are 2 villages with the latrine coverage lower than at the baseline. These 2 villages are CLTS triggered villages. In these villages coverage decreased from 35.7 and 77.9 percent to 16.0 and 39.5 percent respectively. This is due to dry-pit coverage for these 2 villages decreasing from 24.5 and 46.8 to 0.0 and 5.8 respectively. It is also likely that in other villages, dry pit latrine usage also dropped but pour flush latrine uptake has compensated for dry latrine decrease.

Characteristics of villages that achieved 100 percent sanitation access

Characteristic of 100% access village	Total (N=4)
CLTS	4 (100%)
Sale event	3 (75%)
Sales Agent lives in the village	2 (50%)
Sale commission for village chief	3 (75%)
Latrine suppliers to the village	4 (100%)
Price increase	4 (100%)
Pour flush increase	4 (100%)
Dry-pit increase	0 (0%)
Dry-pit decrease	3 (75%)

100% access is defined as every person in a village using a latrine which includes households sharing facilities. 100% access does not imply that these villages are open defecation free as no verification process has been undertaken for any other village sanitation characteristics. Of the 4 villages with 100% access, 50% (2 villages) had sales agents living in the village, compared to 17% of the overall sample. Three of the 4 villages (75%) had a village chief who received a sales commission, compared to 36% overall.

Characteristics of villages based on change in coverage

Factor	% point of coverage increase 2009 to 2012 broken down by small, moderate, or large change									
	Overall	%	Decrease (<0 %)	%	Small (0 - 10 %)	%	Moderate (11 - 20 %)	%	Large (> 20 %)	%
Baseline coverage										
Low <30%	25	69.4%	0	0.0%	7	28.0%	5	20.0%	13	52.0%
Medium 30%-60%	7	19.4%	1	14.3%	0	0.0%	2	28.6%	4	57.1%
High >60%	4	11.1%	1	25.0%	0	0.0%	2	50.0%	1	25.0%
Sales Agent lives in the village										
Yes	6	16.7%	0	0.0%	0	0.0%	2	33.3%	4	66.7%
No	30	83.3%	2	6.7%	7	23.3%	7	23.3%	14	46.7%
CLTS										
CLTS before 2009	12	33.3%	2	16.7%	3	25.0%	1	8.3%	6	50.0%
CLTS from 2009	9	25.0%	0	0.0%	0	0.0%	3	33.3%	6	66.7%
Non-CLTS	15	41.7%	0	0.0%	4	26.7%	5	33.3%	6	40.0%
Sale event										
Yes	35	97.2%	2	5.7%	7	20.0%	9	25.7%	17	48.6%
No	1	2.8%	0	0.0%	0	0.0%	0	0.0%	1	100.0%
Sale commission for village chief										
Yes	13	36.1%	0	0.0%	3	23.1%	3	23.1%	7	53.8%
No	23	63.9%	2	8.7%	4	17.4%	6	26.1%	11	47.8%
# of suppliers to the village										
1	34	94.4%	2	5.9%	7	20.6%	9	26.5%	16	47.1%
2	2	5.6%	0	0.0%	0	0.0%	0	0.0%	2	100.0%
Latrine price increase										
Yes	31	86.1%	2	6.5%	4	12.9%	8	25.8%	17	54.8%
No	5	13.9%	0	0.0%	3	60.0%	1	20.0%	1	20.0%
Pour-flush ownership										
Increase	36	100.0%	2	5.6%	7	19.4%	9	25.0%	18	50.0%
No change	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Decrease	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Dry-pit ownership										
Increase	6	16.7%	0	0.0%	0	0.0%	1	16.7%	5	83.3%
No change	18	50.0%	0	0.0%	3	16.7%	7	38.9%	8	44.4%
Decrease	12	33.3%	2	16.7%	4	33.3%	1	8.3%	5	41.7%

Conclusions

Increasing access to sanitation through a market based approach drives sanitation ownership in rural areas. CLTS is not a prerequisite for early uptake of latrines through a market-based approach but may play a role in achieving 100% access. CLTS does appear to be associated with higher increases in villages with low and medium coverage at baseline and is associated with lower gains from high baseline coverage. Sales agents or sales-commissioned village chiefs, resident in the village appear to be drivers of change. Prior level of sanitation coverage is not an indicator of willingness to purchase. Dry pit abandonment following CLTS intervention may be an area for further research.

¹ General Population Census of Cambodia 2008 www.nis.gov.kh/nada/index.php/catalog/25/download/29

² WASH Marketing Project Kampong Speu Baseline Survey 2009: <http://www.watershedasia.org/research-and-technical-assistance/>.

³ Cambodian Rural Consumer Sanitation Adoption Study 2012 (in preparation)

Acknowledgements

WaterSHED would like to acknowledge the village chief and villagers, facilitation specialists, and area manager in the study area in Kampong Speu. Ms. Danielle Padi, WASH Catalyst
Water Sanitation and Hygiene Enterprise Development (WaterSHED) is funded by United State Agency for International Development (USAID).