WASH Results R/02/2022

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Accelerating Sanitation, Hygiene and Water for All (ASWA-II): A Synthesis of the Baseline Findings from Cambodia and Myanmar

SUMMARY

The Accelerated Sanitation and Water for All (ASWA-II) Programme (2017-2022) is being implemented across six selected provinces in 19 rural districts of Cambodia and in 13 townships in one region and one state in Myanmar. More than half of the surveyed population used toilets (79 per cent of people in Cambodia; and 95 per cent of households in Myanmar). However, while the proportion of people using improved toilets in Cambodia was relatively high (64 per cent); only 23 per cent of households in Myanmar reported having access to improved toilets. In Cambodia, household income played an important role in toilet use and access to improved water sources, with the results showing that toilet use and access to improved water sources increased with household income. In Cambodia, 83 per cent of people had access to basic handwashing facilities, while in Myanmar 57 per cent of households had a handwashing facility. Of these, only 45 per cent of households reported having sufficient water and 44 per cent reported having soap. In Cambodia, 90.7 per cent of the water supply schemes were found fully functional, while in Myanmar 84 per cent of the improved water supply was considered functional, taking into consideration reliability and continuity of supply.

Introduction

The Accelerated Sanitation and Water for All (ASWA-II) Programme intends to improve the health of rural communities by increasing accessibility to safe sanitation, safe drinking water and handwashing practices in 10 countries globally including Cambodia and Myanmar in the East Asia and Pacific region. ASWA-II, which was initiated in 2017 and will continue until 2022, builds on the gains achieved through ASWA-I, which ran from 2014 to 2016. It is funded by the Government of the United Kingdom (GoUK) through the Foreign, Commonwealth & Development Office (FCDO) and implemented by UNICEF in partnership with the GoUK.

In Cambodia, ASWA-II aims to improve water, sanitation and hygiene (WASH) and related health, nutrition and social outcomes by adopting a district-wide approach to sanitation and hygiene promotion. The programme is being implemented

by the Ministry of Rural Development (MRD) in coordination with other relevant ministries across six selected provinces in 19 rural districts of Cambodia: Kratie, Preah Vihear, Ratanakiri, Kampong Speu, Svay Rieng and Takeo. Specifically, it aims to reach out to 350,000 people with sustained access to basic sanitation and hygiene services; 10,000 people with sustained access to safe water services and 50 schools and 15 health facilities with appropriate, effectively managed WASH facilities for hygiene promotion.

In Myanmar, ASWA-II aims to improve WASH practices in rural areas in 13 townships in Magway region and South Shan states. Specifically, it aims to help 200,000 people gain sustainable access to basic sanitation; 40,000 people gain access to sustainable, basic and safe water supplies; 50 schools and 30 Health Care Facilities have appropriate, effectively managed WASH facilities, with hygiene also being promoted; and help implementing partners, mainly the Department of Rural Development, Department of Public Health and Department of Basic Education, have strengthened national monitoring systems and reinforced capacity to improve the equity and sustainability of rural WASH services.

A central element of ASWA-II is the establishment of the baseline data, which aim to document the extent to which interventions are effective and operationally feasible and in what circumstances in each programme country. This document intends to provide a synthesis of the findings from the baseline studies conducted in Cambodia and Myanmar.

Methodology

In Cambodia, the baseline study used three pre-set survey questionnaires: (1) community questionnaire; (2) water supply questionnaire and (3) household questionnaire; and measured the following outcome and output indicators selected from the overall list of programme indicators:

- Outcome 2: Proportion of people in intervention communities that use household toilets, disaggregated by toilet category, sex, disability, wealth and ranking
- Output 1.3: Proportion of people who have access to a basic toilet, disaggregated by sex and disability
- Outcome 3: Proportion of people in intervention communities that practice handwashing with soap or an alternative handwashing agent such as ash, and water, disaggregated by sex, disability and wealth ranking
- Output 1.4: Proportion of people who have access to basic handwashing facilities, disaggregated by sex and disability.
- Outcome 4: Proportion of people in intervention communities that use safe water from newly constructed or rehabilitated systems aggregated by water supply, category, sex, disability and wealth ranking
- Output 2.3 Proportion of communities where the main water supply is fully functioning

The survey universe for Cambodia (also referred to as a sample frame) comprised of **2,186 communities** (also referred to as villages) spread across selected **19 rural districts in the six pre-selected provinces** with a total population of approximately **1.6 million people**. Using a multi-stage systematic cluster sampling approach, a sample size of **241 communities** (or clusters) and **1,205 households** were selected.

In contrast, Myanmar used a different set of questionnaires, which were designed to look at: (1) household water supply access; (2) community level water supply; and (3) community level sanitation and hygiene. The objective of the baseline study was to provide information about:

Outcome: Sustained use of safe water supplies and sanitation services, and sustained adoption of hygiene practices, by poor and vulnerable people in targeted areas, especially by women and girls.

- Output 1: Basic Sanitation: Access to basic sanitation for people in targeted rural townships
- Output 2: Access to basic, safe, locally managed water supplies for rural people in targeted townships
- Output 3: Primary schools in targeted townships have appropriate, effectively managed WASH facilities, with hygiene also being promoted
- Output 4: Enabling environment and sustainability: National systems and capacity for rural WASH strengthened in prioritised areas

For the surveys on water supply and access, the Myanmar study looked at a representative sample of **165 communities from 13 townships in two regions/states** with a total population of **106,676 people**. Data on sanitation and hygiene access, on the other hand, was collected from **1,407 communities from eight townships in two regions/states** with a total population of **789,372 people**.

Data collection for both Cambodia and Myanmar was done using the mWater App and mWater (web-based) platform, a free and open access system used to collect, manage, store, and analyze data. For Cambodia, the analysis was done using a 90 per cent confidence level and a 5 per cent confidence interval margin of error. For Myanmar, 90 per cent confidence level and a 5 per cent confidence interval margin of error was used for the analysis.

Limitations

Limitations in the Cambodia study included 1) having limited data and insights around disability and implications for service access and use; 2) the use of proxy indicators for measurement of handwashing with soap; 3) the use of a systematic skip pattern for household selection in communities; 4) the exclusion of water quality tests in Cambodia due to the non-availability of water quality testing kits; and 5) a possible seasonal bias among the findings as data collection was undertaken during the dry season (late December to early January) in Cambodia, which may have a bearing on the results.

Limitations in the Myanmar study included 1) the separate collection of data on water and data on sanitation & handwashing facilities because of separate line of responsibilities for water and sanitation within the Myanmar government; 2) the assessment of data on people with disability for water supply and sanitation using different methodologies, thus limiting the capacity for comparison; and 3) the possibility of overestimating household access to safe water due to water quality testing from the water supply system (from a tap stand or tank).

Results

Sanitation Access

Outcome 2: Proportion of people in intervention communities that use household toilets, disaggregated by toilet category, sex, disability, wealth and ranking

Table 1 shows a summary of results regarding access to sanitation in Cambodia and Myanmar in terms of the percentage of households who have improved, shared or unimproved toilets.

Table 1: Household Sanitation Access

INDICATOR	CAMBODIA	MYANMAR
Have improved toilets	64%	26%
Have shared toilets	14%	14%
Have unimproved toilets	1%	55%
Have no toilets	21%	5%

Output 1.3: Proportion of people who have access to a basic toilet, disaggregated by sex and disability

Because Cambodia collected data on the percentage of *people* that do not use toilets as opposed to Myanmar, which looked at the percentage of *households* that did not have latrines, the figures for each country are not directly comparable. Nevertheless, the respective studies showed that **21 per cent of people** in the Cambodia sites do not use toilets, while in Myanmar **5 per cent of households** in the Magway region and South Shan states have no latrines (see Table 1).

The Cambodia results showed that while sex, gender of household head and disability do not seem to have any significant bearing on the use of toilets, there is an apparent relation between household income and toilet use, with the results showing that the practice of toilet use increases with household income.

Note: Myanmar has data on people with disabilities, however no analysis has been written up on this. We need to determine if the numbers have any significant bearing on the results.

Hygiene Practices

Outcome 3: Proportion of people in intervention communities that practice handwashing with soap or an alternative handwashing agent such as ash, and water, disaggregated by sex, disability and wealth ranking

In Cambodia, **83 per cent of people** surveyed practiced handwashing with soap or alternative agents such as ash and water. Sex, gender of the head of the household, and disability do not have any significant bearing on the results while a positive correlation was again observed between household income and the practice of handwashing, with the practice of handwashing increasing as household income increases.

No data was collected on the proportion of people that practice handwashing in Myanmar.

Output 1.4: Proportion of people who have access to basic handwashing facilities, disaggregated by sex and disability.

Cambodia results showed that **83 per cent of people** have access to basic handwashing facilities, with sex, gender of household and disability again not having any significant bearing. The proportion of households with handwashing facilities is higher at **96 per cent**. Water availability for handwashing also appears to be a non-issue with 97.5 percent saying they have water for handwashing and 88 per cent of households having soap or ash.

The differences based on sex and gender of the head of households are negligible as is the difference between households with and without disability.

In Myanmar, the results showed that **57 per cent of households** have a handwashing facility (72 per cent in the Magway region and 31 per cent in South Shan states). However, of these, only 45 per cent of households reported having sufficient water and 44 per cent reported having soap.

Water Supply

Outcome 4: Proportion of people in intervention communities that use safe water from newly constructed or rehabilitated systems aggregated by water supply, category, sex, disability and wealth ranking

Because the Cambodia baseline study was unable to perform water quality tests at source, other contributing factors such as type of water source, location of water source and the availability of water were instead examined.

In Myanmar, water quality tests revealed that only **48 per cent** of the water sources tested are bacteriologically safe, with high contamination rates observed in the townships of Mawkmai, Ngape, and Nansang.

Type of water source. The Cambodia baseline results reported that **86 per cent of people** have access to improved water sources (*Note: This percentage is based on the JMP definition),* while the Myanmar results reported that **85 per cent of households** have access to improved water source.

While sex, gender of household head, and disability do not have any significant bearing on the type of water source people have access to, there is an apparent positive correlation between household income and access to improved water sources with access to improved water sources increasing with family income.

Location of water source. **15.4 per cent of households** in Cambodia and **2.06 per cent of households** in Myanmar report that their water source is located in their dwelling. In Cambodia, among households that collect water from sources outside their dwelling, 30 per cent report that it takes less than five minutes to complete one roundtrip to fetch water. In Myanmar, majority of the households that do the same report that they spend less than 20 minutes to complete a roundtrip.

Cambodia's disaggregated data show that water collection is not associated with sex of adults with both men (51 per cent) and women (49 per cent) performing the tasks. However, among children, the proportion of girls collecting water (14 per cent) is much higher than boys (8 per cent).

Availability of water. In Cambodia, **10 per cent of people** reported that their main water source was not available all throughout the year while in Myanmar, **20 per cent of households** report water not always being available when needed.

Output 2.3 Proportion of communities where the main water supply is fully functioning

In Cambodia, **90.7 per cent** of the water supply schemes were found fully functional while in Myanmar, **84 per cent** of the improved water supply is considered functional, taking into consideration reliability and continuity of supply.

Discussion

Sanitation

In Cambodia, toilet use is widespread with 4 in every 5 people using a toilet. The sanitation interventions need to target the remaining to turn communities to open defecation free (ODF) status. Most people (about 4 in every 5) have access to improved toilets. Shared toilets are not common and the prevalence of unimproved toilets is negligible. Sex (of household members) and gender of the head of the household appear to have insignificant bearing on toilet use. The baseline could also not ascertain the impact of physical disability on extent of toilet use, which is likely due to instrument limitations. A 'positive' correlation is noted, however, between family income and toilet use. Inequities are evident (in terms of toilet use) as there is a big gap between the bottom (poorest quintile) and top (richest quintile) incomes groups. The results underpin the importance of focusing on the bottom two income quintiles, which account for 17 per cent of the total population in programme communities.

In Myanmar, only 5 per cent of households report having no latrine and therefore open defecating. The majority of households (55 per cent) however have unimproved latrines, for example, between 52 to 68 per cent of latrines are built with earth pit with no lining. At the time of baseline, no targeted village was yet declared ODF.

Hygiene

In Cambodia, the practice of handwashing with soap/agent is widespread with 4 in every 5 people practicing handwashing. Handwashing facilities as well as water and soap are available to most people (9 in every 10). Sex (of household members) and gender of the head of the household appear to have insignificant bearing on practice of handwashing with soap. A positive correlation is noted between family income and

the practice of handwashing with soap. The practice is relatively less common in the bottom 2 income quintile groups, which account for 17 per cent of the population.

In Myanmar, 57 per cent of households report having a handwashing facility; however only 45 per cent of households report having sufficient water and 44 per cent report having soap.

Water

In Cambodia, access to safe water could not be determined due to an inability to perform the water quality test (at source), one of key assessment factors for the measurement. Access to drinking water is universal (100%) as all have access to 1 or more sources. A significant majority (3/4) reported to have access to two or more drinking water sources, which points to diversity of drinking water sources. The access to improved water sources (as per JMP criteria) is widespread at 86.1 per cent. Most people are required to put an effort and resources (human and time) for water collection. For most, the drinking water sources are nearby requiring less than 30 minutes of water hauling time. Sex (of the household member) and gender of the head of households appear to have insignificant bearing on access to water. There is an apparent positive correlation between income and access to improved water sources. The difference (in terms of access) between lowest and highest income quintiles is 14 percentage points, which is considerable. Over 90 per cent of the main community water supply sources are reported to be functional all year round.

In Myanmar, one of the key limiting factors for households to achieve safely managed water supply in the intervention area is improvement to water quality – 18 per cent of the households/population have access to safely managed drinking water which is accessible on premise, available when needed and free from contamination. Additionally, 48 per cent of the water sources tested are reported as bacteriologically safe, with high contamination rates observed in the townships of Mawkmai, Ngape, Nansang.

Wealth disaggregated water data on water supply access confirm that the households within the lowest 2 income quintiles, which represent 17 per cent of total population, have proportionally less access to basic service levels with 25 per cent of them using unimproved or surface water.

From community level water supply assessments, the baseline determined that only 18 per cent can be classified as providing safely managed water supply. This is due to limitations in service provision particularly, functionality, reliability and water quality.

Conclusion

The data in the baseline studies for Cambodia and Myanmar suggested a number of potential opportunities for intervention.

In Cambodia, the baseline analyses showed that the environment offers opportunities for introducing (pro-poor) low-cost latrines, sanitation marketing, norm creation (of latrine use), and establishing community support mechanisms (including subsidies) for poor. To make ASWA-II inclusive, the element of disability and impact on toilet use needs further exploration to inform programme interventions.

With regards to hygiene, ASWA-II may need to focus on the bottom two income quintiles, where hygiene practice is lowest. Where the behaviour change/communication interventions may need to focus on these groups, the message and the channels may need to be adapted to the preferences of boys, girls, women, and people with disabilities.

Finally, while the results around access to drinking water, functionality (of schemes) and water treatment in Cambodia are encouraging, there are opportunities around mobilizing and organizing communities to manage drinking water

sources. The efforts should focus on greater women participation and representation in these forums. There is huge space for introduction of water tariffs (for sustainable water supply) and strengthening the norms of payment for water. Similarly, there are opportunities for training of local plumbers/technicians for availability of skills for repair and maintenance at local level. ASWA-II may need to adapt interventions (including communication) to reach out to the poor, boys and girls, women and people with disabilities, the disabled, to demonstrate inclusiveness.

In Myanmar, there is a need to support households in upgrading their latrine design and materials. Additional qualitative information on faecal waste management in rural villages also needs to be collected to complement calculation of service levels ladder.

In terms of geographical focus for water supply improvements interventions, the townships of Pekon, Ngape and Nansang have the lowest level of water services and therefore need to be prioritized for investment in new infrastructure. Households in the townships of Seikphyu and Mawkmai township reported a longer roundtrip time for water collection, and therefore should be focus areas for improving accessibility by creating piped systems with multiple tap stands closer to the households. Pekhon and Laihka reported having issues with reliability of water supply - possibly indicating issues around effectiveness of operation and management of water supply or issues with water resources scarcity.

References

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Acknowledgements

UNICEF Myanmar and Union level DRD would like to give thanks to the Myanmar Department of Rural Development and communities in Myaing, Pauk and Yaynangyoung townships for helping to support the development of this Field Note. UNICEF would like to thank the UNICEF WASH team and implementing partners of Cambodia and Myanmar for sharing the ASWAII progress reports to develop this Results Report.

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Document No: WASH/R/02/2022