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Accelerating Sanitation, Hygiene and Water for All (ASWA-II)

Baseline findings from Nepal

SUMMARY

- The ASWA-II programme (2017-2022) is being implemented in eight Terai districts to eliminate open defecation and ensure the sustained use of safely managed water supplies and hygiene by people in targeted districts, especially by women and girls and persons with disability.
- At baseline, 47 out of 100 communities were externally ODF certified. However, there are challenges in sustaining the ODF achievements. Slippage is a concern, with18 ODF certified communities showing signs of open defecation.
- More than half of the total population (55 per cent) used toilets, with most using improved toilets. Two per cent shared toilets.
- Affordability and culture play a role in households not constructing toilets. 61 per cent of Dalit households did not use a toilet. Use of toilets increases with wealth quintile.
- 64 per cent of the total population had access to a handwashing facility, with the provision of water and one form of cleansing agent. The practice of handwashing was consistent among both genders and also among people with disability but seen least among the poorest as well as Dalit households.
- More than three-quarters of households did not treat their water for consumption: more than half (59 per cent) of the 1,000 tested household showed the presence of coliform in their tested water.

Introduction

Accelerating Sanitation, Hygiene and Water for All (ASWA-II) is a DFID-funded programme that aims to achieve sustained access to basic sanitation and safe water supplies for poor and vulnerable people, as well as the long-term adoption of hygiene practices, across 10 focus countries (Bangladesh, Myanmar, Cambodia, Eritrea, Haiti, Madagascar, Nepal, Niger, Pakistan and South Sudan). ASWA-II builds upon Phase I of the ASWA programme.

ASWA-II's overall objective is to enable and sustain open defecation free (ODF) status across communities, with a target to ensure 3,750,000

people have access to basic sanitation; establish basic and safe water supplies for 500,000 people; and provide 500 schools and 250 healthcare facilities with sustained access to improved WASH facilities. ASWA-II includes performance incentives, such as Payment by Results (PbR), that focus on the sustainability of sanitation outcomes.

ASWA-II in Nepal is implemented in eight Terai districts including (i) Saptari, (ii) Siraha, (iii) Dhanusha, (iv) Mahottari, (v) Sarlahi, (vi) Rautahat, (viii) Bara and (viii) Parsa in Nepal's south-eastern Province 2. In 2015, the Government of Nepal declared these eight Terai districts as '*sanitation dark*' districts. Four of the eight districts (i.e., Siraha, Dhanusha, Mahottari and Rautahat) were part of the ASWA-I programme.

ASWA-II will support federal, provincial and local governments to strengthen their capacity and systems to plan, implement, monitor and sustain WASH services. It will build both community and government ownership by strengthening the enabling environment while ensuring sustained use of safely managed water supplies and the elimination of open defecation and hygiene, especially by women and girls and persons with disability. Major interventions under this programme include: supporting people to have improved access to basic sanitation and safe water, WASH in Schools (WinS) and healthcare facilities.

The key results anticipated are: (i) 350,000 additional people including children and women in eight Terai districts to access improved sanitation, (ii) 25,000 people to have access to safely managed water supply by 2022. In the same target communities (iii) 50 schools and (iv) 20 healthcare facilities will be provided with access to the safe and reliable WASH services according to the national standards and (v) central and local governments will be provided with technical and financial assistance for enabling environment for WASH.

About 1,000-1,500 communities (depending on the size of the community) will be targeted for accelerating access to sanitation. Appropriate technology options will be presented in the target communities to enable them to progress along the sanitation ladder and meet the requirements for safely managed sanitation facilities. It is expected that as a result of sanitation interventions, the targeted communities in 44 local governments will achieve ODF status bringing about 1.5 to 2 million people living in ODF environments.

To supplement Government's effort in the provision of improved water sources through rehabilitation of dysfunctional schemes and construction of new systems, this project will focus on water safety plans and reinforce behaviour transformation on the use of safe water. Special focus will be given at household level to promote safe handling, storage and use of safe water, including water treatment option. A robust behavioural change communication component will be part of the hygiene promotion interventions aiming at reducing WASH-related diseases.

Methodology

The baseline study used quantitative surveys: (1) household questionnaire survey, and (2) community questionnaire. The questions for the global survey were developed by UNICEF's WASH Section and the Evaluation Office in New York and piloted in Nepal. The data sources were derived from the respondent interviews in households, observations by the interviewer and interviews with community key informants from the same communities. The water quality testing utilized a presence and absence test vial developed in Nepal and endorsed by UNICEF Nepal Country Office.

The baseline study measured the following Outcome Indicators:

1. Proportion of externally verified ODF communities attributed to DFID support that maintain their ODF status for at least one year.

2. Proportion of people in the intervention communities that use household toilets, disaggregated by sex, disability, and wealth quintile

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

4. Proportion of people using basic, safe water supplies, disaggregated by sex, disability and wealth ranking.

A sample size of 3,000 was selected for the study. A design effect of 2 was selected given that the characteristics of ODF vs Non-ODF are heterogeneous in the Terai region. To determine prevalence percentage, the indicator "access to improved toilet facility" was considered, which is at 63 per cent according to NDHS, 2016. The household sampling protocol was multi-staged; sampling municipalities at the first stage using population proportionate to size (PPS), based on the selected municipalities, intervention communities (also known as the village/tole) were selected once again using the PPS method.

20-25 households were targeted for survey in each ASWA-II intervention community. A sub-sample from the sampled households was taken to conduct water quality testing. The targeted number of water testing samples was a minimum of 1,000 (33.3 per cent) of the sampled households. These 1,000 samples were tested for the presence of coliform. Household water was tested from household stored drinking water vessels or directly from the source as accessible and at the discretion of the enumerators.

A training was held in Jhamsikhel, Lalitur with one representative from UNICEF HQ for piloting the school, health, community and water supply questionnaire. Piloting was conducted in Kalaiya, Bara along with representatives from UNICEF HQ, UNICEF ROSA, UNICEF Country Office from Nepal, Bangladesh and Pakistan, together with research firms from Pakistan, and Bangladesh, and local government representatives. The data was analyzed using Excel and SPSS 25.0. The study was conducted in compliance with UNICEF's Procedure in Ethical Standards in Data Gathering Activities.

Data collected at mid-line and end-line surveys will be compared to the baseline data to assess progress and results achieved through the programme.

Limitations: The limitations included: the baseline survey consisted of only quantitative data; the global survey included elements not appropriate to Nepal, which confused the enumerators. Logistical constraints affected the comprehensiveness of survey data and results. In some instances, the community questionnaire could not be performed due to the absence of a key informant.

Results

The survey was completed by a total of 23,348 respondents, with 11,453 female (49 per cent) and 11,895 male (51 per cent). The findings are presented below under the key project outcome indicators.

Outcome 1 indicator "*Proportion of externally verified ODF communities attributed to DFID support that maintain their ODF status for at least one year*".

At baseline, 47 of 100 communities were externally ODF certified. Of these communities, 29 communities were observed to be free of evidence of open defecation, whilst the remaining 18 showed evidence of open defecation despite being ODF certified. Positively, there were 11 communities out of 53 that were not ODF certified yet showed no evidence of open defecation.

Outcome 2 indicator *"Proportion of people in the intervention communities that use household toilets, disaggregated by sex, disability, and wealth quintile".*

Results from the baseline survey indicate that more than half of the total population (55 per cent) used toilets. Toilet usage did not appear to vary between female and male respondents or according to respondents with a disability. However, the use of a toilet increased with wealth quintile: from first (20 per cent) to fifth (92 per cent). Almost half the population used improved toilets that were not shared (i.e. the JMP definition of improved), while 2 per cent used shared toilets. Among the households where toilets were observed, 87 per cent had a flush toilet and 13 per cent had a pit latrine.

Outcome indicator 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".*

Results show that 64 per cent of the total population had access to a handwashing facility, with the provision of water and one form of cleansing agent. There was no variation between male and female respondents. Similarly, there was little variation between respondents according to whether the respondent had a disability (64 per cent in population with no disability and 63 per cent in population with a disability). Again, the trend for handwashing increased as the wealth quintile ascended. Handwashing practice was lowest in the first quintile (48 per cent) and highest in the fifth quintile (85 per cent).

Only 2.5 per cent of households reported that they do not usually wash their hands. The critical times of handwashing were reported to be after defecation, before eating, after eating and while washing body and face.

Outcome 4 indicator: *"Proportion of people using basic, safe water supplies, disaggregated by sex, disability and wealth ranking".*

In the baseline, PA vial was used to test faecal coliform in 1,000 households. Results revealed that more than half (59 per cent) of the tested households showed the presence of faecal coliform in their water. Contamination was found in water collected from covered (66 per cent) and uncovered (68 per cent) containers as well as directly from the source (58 per cent).

Discussion

At baseline, 47 communities were ODF certified. Although in 13 ODF certified communities, there was evidence that people were still practising open defecation. Whereas in 11 communities that had not been certified ODF, no evidence of open defecation was observed.

Findings from the household survey revealed that Rautahat and Siraha had achieved 100 per cent ODF certification. Saptari and Mahottari had reduced levels of open defecation, however, progress in Bara and Dhanusa was lagging, with open defecation confirmed through a transect walk. In Bara and Dhanusa, about half of the households did not use toilets. Even though Rautahat had received ODF certification, 59 per cent of households claimed that they do not use a toilet.

Observation revealed that nearly all households had improved toilets. With regards to the soil type, only 13 communities reported difficulty in the construction of toilets, out of which 8 were non-ODF communities.

The practice of using toilets appears consistent among genders. There is no variation in the use of toilets as per the disability status. However, 5 per cent of those households that reported using a toilet revealed that not everyone in the household uses a toilet.

The household survey highlights that 42 per cent did not use toilets at all. Interviews with the community key informant revealed that affordability was the major reason for not constructing the toilet. This was followed by the ingrained cultural norms that were hindering the practice of using a toilet.

The households that fall under the first wealth quintile are least likely to use a toilet. Only 18 per cent of households in the first quintile use toilets. Dalits tend to fall in first and second wealth quintile. 61 per cent of Dalit households reportedly do not use a toilet, while the data is less than one third in case of other ethnicities.

With regards to handwashing practice, 92 per cent of households had access to water and around 50 per cent of households had soap or other cleansing agents present in the handwashing station. In terms of ethnicity, the practise of handwashing with water and soap or cleansing agent was seen least among Dalit households. The practice of handwashing was consistent among both genders and also among respondents with a disability.

In terms of access to drinking water, tube-wells were the main source of drinking water in 94 per cent of households. The majority of these households did not face any interruption in water supply, as water is available year-round. Most household drink water directly from the source, at baseline more than three-quarters of households did not treat their water before consumption.

Water sample collection from a source

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Water quality testing was carried out in over one-third of households. The results demonstrated that 60 per cent of the water samples were contaminated. The highest rate of contamination was found in Mahottari (72 per cent), followed by Bara (68 per cent) and Parsa (67 per cent). The whole population of Province 2 in the southeastern region of Nepal irrespective of religion, ethnicity or

wealth quintile is consuming contaminated water. A negligible proportion of households treated their drinking water (0.7 per cent); the water testing results for these households showed no contamination.

Water quality testing on site

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Improving water safety requires further attention to monitoring mechanisms (such as established community or WASH committees) as well as sensitization on potential ways of water treatment.

Conclusion

At baseline, about half of the households lacked the provision of toilets, mainly improved toilets. The survey findings suggest a number of priorities for intervention. Ending OD and improving latrine quality is still necessary, with particular attention to the lowest income and marginalized groups.

Overall, handwashing knowledge in communities was adequate, handwashing stations were also available in households, however, practice of handwashing with soap at key times is still lacking.

Regarding water supply, the management of water facilities is a concern. More than half of the sampled households were consuming contaminated water. Few households practice any type of water treatment. Greater awareness of the potential ways of water treatment is required. In addition, linking WASH committee members with WASH department within the new government structure is vital for improved water safety measures.

In schools, the frequency of cleaning toilets must be increased as well as improving menstrual hygiene education and facilities. A school budget for WASH would help ensure a constant provision of soap and water for handwashing.

In health centres, further attention is required for drinking water and sanitation facilities as well as handwashing and arrangements for solid and menstrual waste.

Addressing these issues effectively is likely to require a combination of behaviour change communication, hardware provision, statutory changes, guidelines and enforcement with government, civil society and the private sector all playing a role.

KEY POINTS

- *Many communities reported that they had not constructed toilets because of affordability concerns.*
- *Support for toilet construction, combined with behavioural change, is necessary to change the social norm.*
- *Despite achieving ODF status, continuous reinforcement and monitoring are important to achieve sustainable results.*
- *Sensitization on handwashing is particularly important among Dalit households.*

References

Progress Inc. (2018) Accelerating Sanitation and Water and for All (ASWA II) Baseline Report: Nepal

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UNICEF Nepal WASH team

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