WASH Technical Paper TP/19/2021

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Understanding Open Defecation Practices in Rural Aceh, Indonesia

SUMMARY

Through Community Based Total Sanitation (known in Bahasa as Sanitasi Total Berbasis Masyaralat or STBM), many rural communities in Aceh province in Indonesia have been supported to eliminate Open Defecation (OD). However, achieving Open Defecation Free (ODF) still remains a challenge for many residents. This technical paper presents the results of a study on open defecation practices in rural Aceh that was hit by a tsunami in December 2004. In 2018, the study was conducted to better understand the factors preventing toilet use in rural areas; factors supporting/ motivating rural households in Aceh to change their hygiene and sanitation behaviours, in particular on the use of toilets or ending OD practices and the social norms related to preventing OD practices in ODF villages as compared to non-ODF villages. Data was collected via a household survey (n of households = 491), focus group discussions and in-depth interview in 9 ODF and 10 non-ODF villages.

The study found that open defecation practices were prevalent not solely due to the lack of sanitation facilities but also lack of information and weak social norms played a significant role. Five key drivers were identified to change the sanitation and hygiene behaviour of the community that include: cleaner and healthier life, comfort, disease prevention, not disturbing or harming others, and privacy. Interestingly, the study found that open defecation practices are not always associated with financial capability of the households since majority of open defecators were not always from poorer households. Regarding the prevalence of a social norm around OP practice, ODF villages revealed stronger social norms compared to non-ODF villages.

The findings will inform the local government approaches, strategies, and priorities for acceleration of elimination of open defecation. The study recommends that the effectiveness of STBM as a behaviour change approach in Aceh can be strengthened through three key actions: (1) conduct triggering based on the five key drivers for toilet use found in the study (2) increase the participation of communities in STBM activities, and (3) design STBM activities to change social norms in communities for sustainable toilet use.

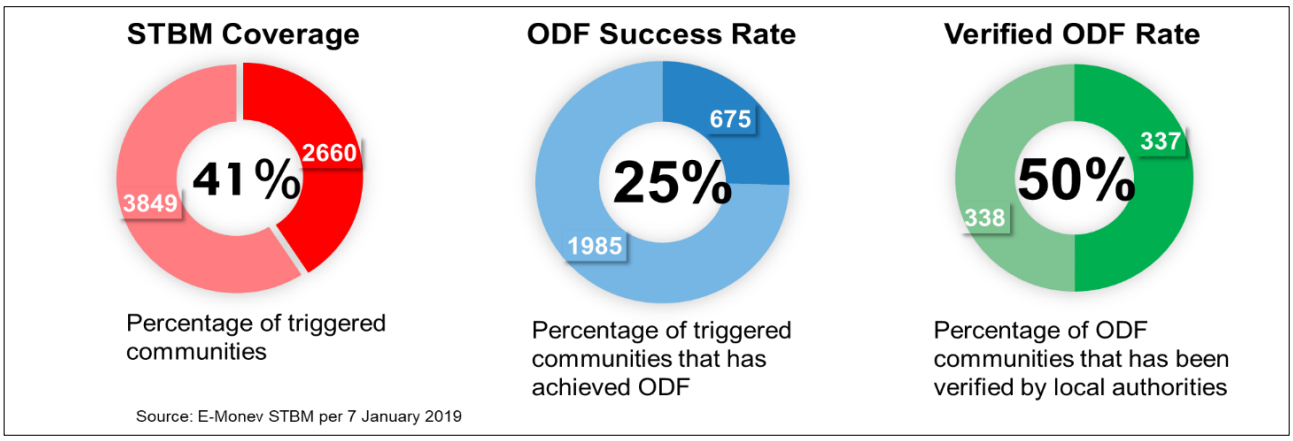
Introduction

Open defecation (OD) is still an unfinished agenda in Aceh, one of the natural resource-rich provinces of Indonesia. Based on the data from the Central Bureau of Statistic (BPS) in 2018, 67% households had access to improved sanitation facilities, while almost 19% had no access to a toilet at all. Poor sanitation contributes to a diarrhoea incidence rate of 14% among children under five (the third highest in the country) and a stunting rate of 40% of children under two years old, making Aceh the province with the highest stunting rate (Ministry of Health, 2018). The OD reduction efforts in Aceh province will contribute to the achievement of Government of Indonesia (GOI) national target as stated in the new five-year National Strategic Plan (known by its Bahasa acronym of RPJMN) to eliminate OD by 2024.

Of 5.3 million population, 66.8% lived in rural areas in Aceh, where one in four rural households still practiced OD (BPS, 2018). Since 2012, the provincial government, through Provincial Health Office (PHO), has been implementing the community-led total sanitation (CLTS) approach, known nationally as the Sanitasi Total Berbasis Masyarakat (STBM) programme, to trigger sanitation and hygiene behaviour change, mobilize community members to eliminate open defecation and promote other hygienic behaviours (e.g. hand washing with soap). Yet, this initiative has not yet shown substantial progress in Aceh (i.e. <30% success rate compared to the national average of 46% by January 2019). By January 2019, 41% of 6,509 villages in Aceh had been triggered while only 10% of the villages (675 villages) are self-declared as ODF communities.

There is an urgent need, therefore, to better understand the underlying factors preventing toilet use especially in rural areas. At the same time, it is also important to review how STBM is implemented and determine the factors for improving its effectiveness. The findings can be used to inform local government approaches, strategies, and priorities for acceleration of elimination of open defecation.

Figure 1: Performance of STBM implementation in Aceh Province per January 2019



Methodology

To fill these gaps, a study was conducted in 2018 to answer three research questions:

(1) What factors were causing households to still practice OD in rural areas of Aceh?

(2) What are the key factors supporting/ motivating rural households in Aceh to change their hygiene and sanitation behaviours, in particular on the use of toilets or ending OD practices?

(3) How are social norms related to preventing OD practices in ODF villages as compared to non-ODF villages?

Study design: The study aimed to assess open defecation practices (or slippage) in villages that have achieved ODF status compared to non-ODF villages. The key factors that enable and inhibit ODF behaviour were further explored.

The study combined both quantitative and qualitative approaches. Data collection was conducted through a household survey, focus group discussion (FGD) and in-depth interview.

A total of 491 respondents (119 males and 372 females) were interviewed that comprised of 231 respondents in 9 ODF villages and 260 respondents in 10 non-ODF villages.

The study examined the factors supporting open defecation, driving behaviour change on toilet use, ending open defecation as well as social norms.

Limitations of the study include: First, while stratified random sampling method was applied, the sample size was not representative of the population of Aceh. Nevertheless, the findings can explain open defecation practices in Aceh. Secondly, the study recognized that there might be recall bias among respondents as most of the questions required self-report.

Figure 2. Commitment to stop open defecation practices after triggering session conducted in one of communities in Aceh. (©STBM Aceh)

Results

The study identified a number of issues related to open defecation practices in rural Aceh. Key findings are described below:

1. Sanitation condition

Household toilet access was much lower than reliable water supply. The majority of households in both ODF villages and non-ODF villages with a toilet had pour flush toilets in their house. There were only 150 households (58%) in non-ODF villages that had a toilet at home, all of which were pour-flush toilets. Meanwhile in ODF villages, there were 168 households (73%) that had a toilet, with 99% having pour-flush toilets and 1% had pit latrines. In terms of water, the majority of households (85% in non-ODF villages and 80% in ODF villages) had water available throughout the year which they used for showering, toilet flushing and household cleaning. The rest (14% in non-ODF villages and 20% in ODF villages) encountered challenges in access to water, especially during dry season. Access to water is often cited as a reason for not constructing a toilet. The survey results indicate that the number of households with a toilet at home was much lower than the number of households with reliable access to a water supply.

Slippage was significantly lower in ODF villages than non-ODF villages. The study found a certain level of slippage or inconsistent use of a toilet in ODF villages. In the ODF villages verified by local authority in 2016 and 2017, the total percentage of households that reverted back to OD ("slippage") is 6%, while in non-ODF villages 22% of households were still practicing OD. However, three out of nine ODF villages showed no slippage (i.e. no OD practice was reported). Among households practicing OD in 6 ODF and 10 non-ODF villages, the majority (> 60%) were defecating in a river, while bushes were chosen as defecation points by around 30% of households and the house backyard by the remaining 10% households.

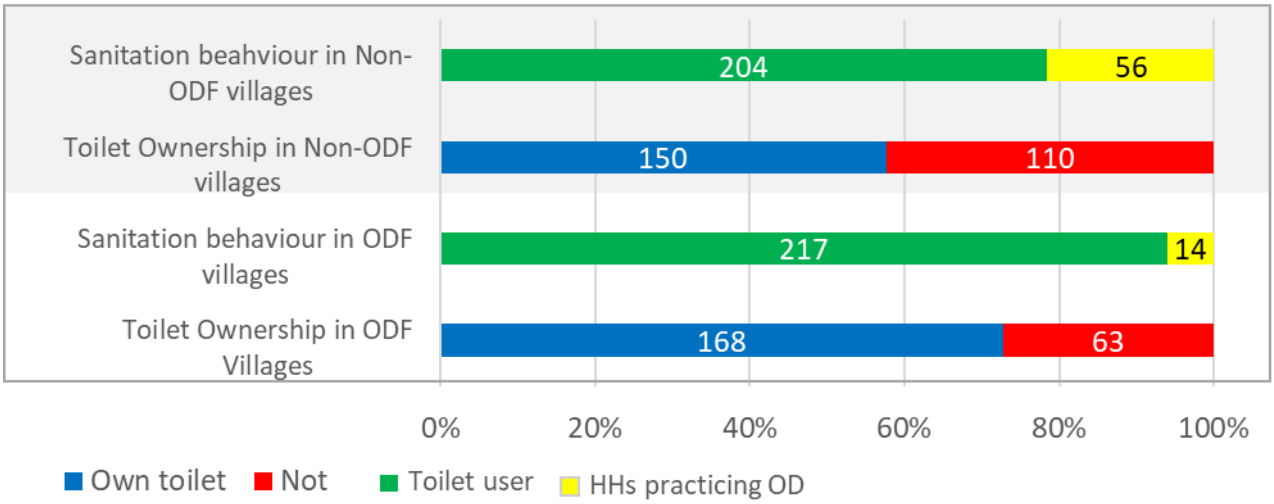
Majority of households practiced unsafe child faeces disposal. The majority of households with children under five years old in both ODF and non-ODF villages practiced unhygienic child faeces disposal such as throwing faeces into bushes, gardens, rivers or waterways, garbage or leaving it on the ground. Such practices are common in rural communities including Aceh, which poses a serious public health risk.

2. Factors leading to OD

In non-ODF villages, lack of a household toilet is correlated with OD. Households without a toilet could still be practicing OD. Further investigation indicated that of the 110 respondents in non-ODF villages without a toilet, the majority practiced OD (57%) and the rest were either using a public toilet or a shared facility with their neighbours. By contrast, the proportion of households without a toilet who practiced OD was substantially lower in ODF villages. More specifically, of a total of 63 households without a toilet, 23% practiced OD and the majority was either using their neighbours' toilet or a public toilet (77%). ODF criteria in Indonesia allows households to share a toilet. A village with shared toilets may still be verified as ODF as long as no OD exists.

Only a small percentage of toilet owners were uncomfortable using a toilet. Among those who owned a household toilet, 4% of households felt uncomfortable using a toilet for defecation in ODF villages, while in non-ODF villages 7% of households reported feeling uncomfortable. The key reasons given for the discomfort included the facility being dirty or smelly, poor construction, inconvenient or unsuitable location, unavailability of water, or too many people sharing the toilet. Among respondents that had a toilet, the frequency of their OD in the last seven days was positively correlated with their level of discomfort in toilet use: those reporting a higher level of discomfort in toilet use also reported higher frequency of OD practices

Figure 3: Toilet Ownership and Sanitation Behaviour (N=260 for Non-ODF Villages, N=231 for ODF Villages)



Source: Author based on data collection

Households practicing OD appeared to have financial capability. In Aceh, those practicing OD are generally assumed to be poorer or less well educated but this study found that the assumption was not true. The majority of households (92%) without toilets (in both ODF and non-ODF villages) highlighted financial constraints as a reason for not building one. However, the study found that the majority of households practicing OD also reported owning a television or motorcycle. One third of respondents reported owning a refrigerator, which costs more than building a toilet. Thus, those households were not necessarily poor. One household without a toilet reported owning a car and having a family member performing Some households reported that they went to perform Hajij, the annual Islamic pilgrimage to Mecca which costs a lot of money, suggesting that having a toilet has lower priorities.

There was no significant correlation between the respondents OD practices and their age, level of education or gender. Some households were practicing OD despite toilet(s) with a water supply at their house.

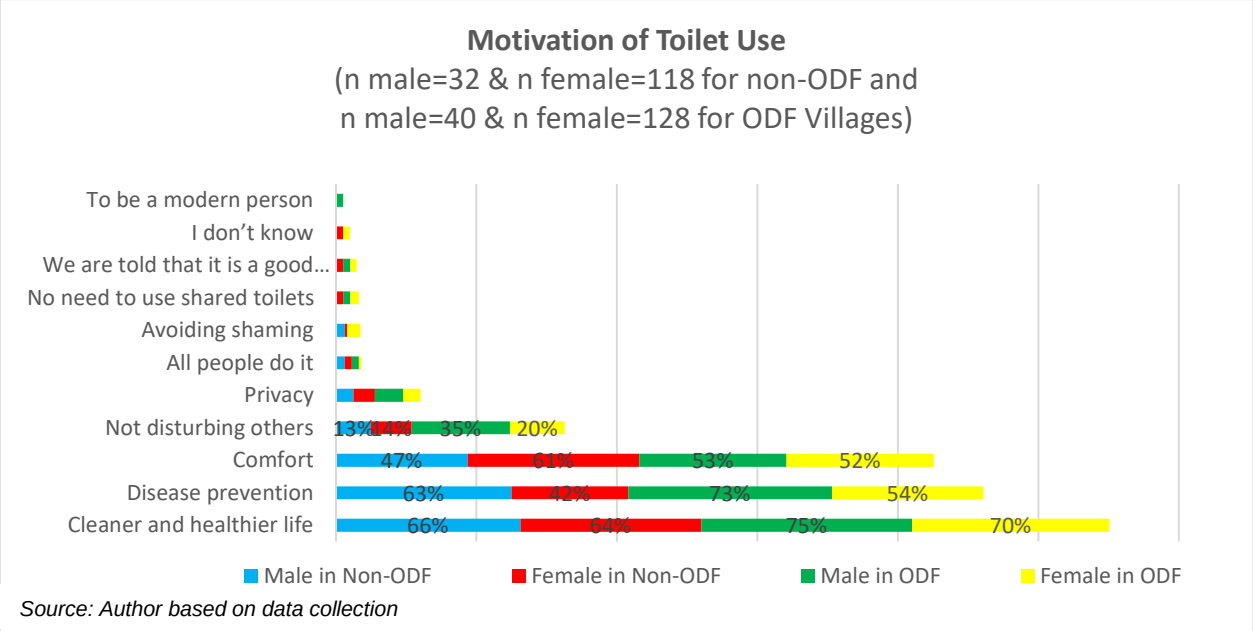
Figure 4: Profile of households with one or more household members practicing OD, comparing ODF villages and non-ODF villages.

Status/ Profile	Non-ODF villages	ODF villages
have members of family with at least high school education background	29%	45%
Having TV(s)	74%	77%
own a motorbike in their house	69%	80%
have access to reliable water sources throughout the year;	100%	75%
have had a latrine/toilet at home.	31.6%	58%

3. Key factors promoting the use of a toilet

***Drivers for toilet use*.** The five top reasons that motivate households for using toilets include: cleaner and healthier life, feeling comfortable, preventing disease, not disturbing others, and privacy. The motives households gave are shown in the figure 5. Interestingly, preventing diseases is one of key messages that was frequently delivered during the STBM triggering sessions based on facilitators' and community members' recall in the FGD and interview. While others were not really mentioned. Men and women in both ODF and non-ODF villages showed similar general trend of the reasons to use toilets. Women cited comfort as a stronger motivator than men.

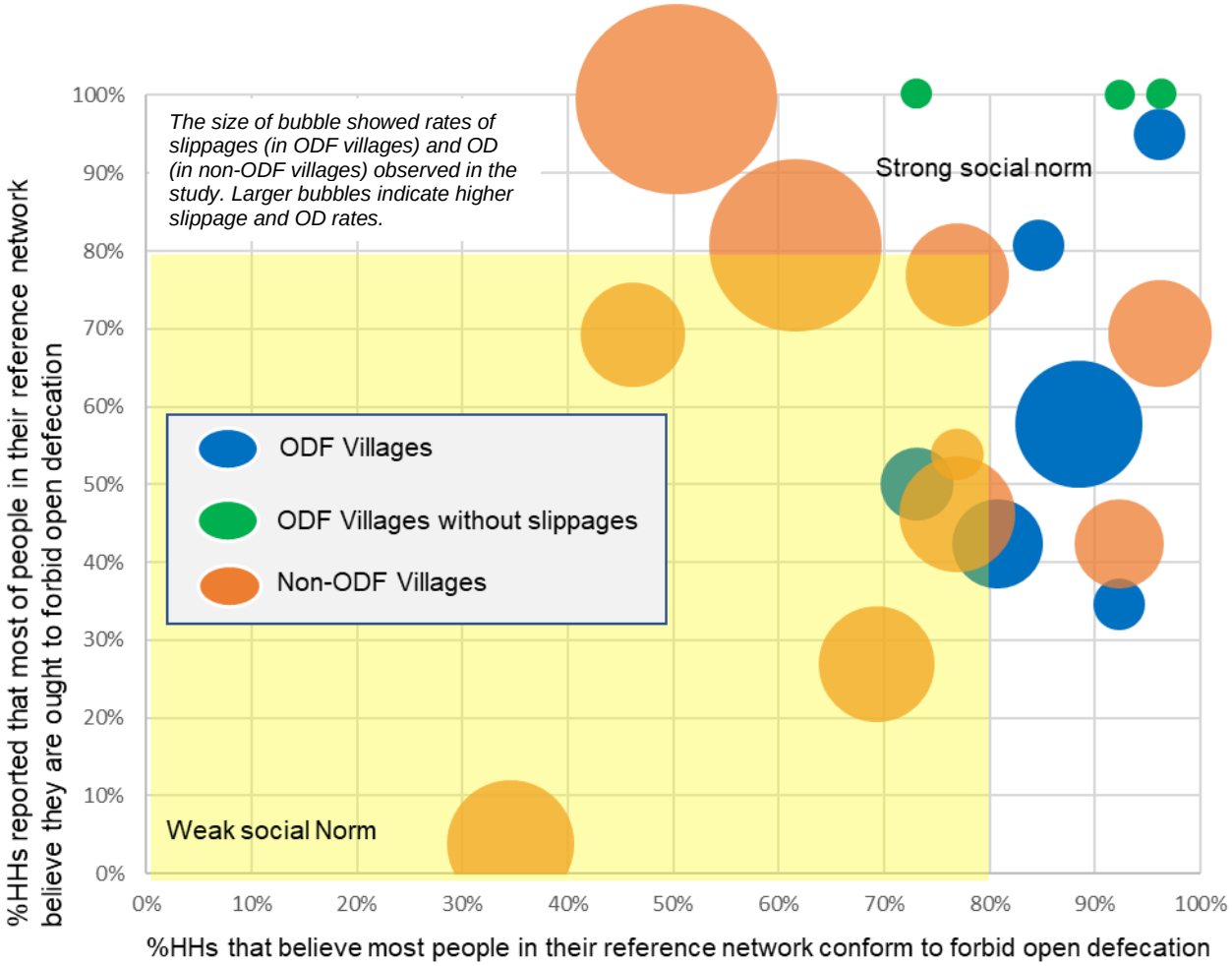
Figure 3: Reasons for using a toilet



Source: Author based on data collection

Level of social norms to prevent OD practices. Social norms are a rule of behaviour that individual prefers to conform to on condition that they believe: (a) most people in their reference network (e.g. people that they know and living in the same area) conform to it, and (b) most people in their reference network believe they ought to conform to it (UNICEF, 2015). The study found that in three ODF villages where there had been no slippage, households had stronger social norms around open defecation compared with other studied villages (Fig. 6). In general, ODF villages revealed stronger social norms compared to non-ODF villages. Most reported that they believe that community members are not practicing open defecation and agreed that open defecation practices should be forbidden. However, the percentage of households that say they believe that most people in their reference network conform to forbidding open defecation range from 35% to 96%, indicating that weak social norms may be one reasons why there are still households practicing OD in their communities.

Figure 6: Situation of social norms in OD prevention in the studied villages



Source: Author based on data collection

Behaviour change efforts until the study date

STBM has been implemented in the study areas since 2014. By 2018, 31 out of 38 villages included in the study had been triggered by staff of the Environmental Health Division of District Health Office (DHO) and sanitarians from the Community Health Centre. Of these 31 villages, 10 villages have been verified as ODF communities. STBM implementation in the study areas has contributed to an increase in the construction and use of toilets. The study found that 34% of households in ODF villages and 36% households in non-ODF villages constructed and used their toilet following STBM programme initiation in 2014.

However, the level of participation in community meetings and number of home visits by sanitarians discussing sanitation or defecation behaviour of households (as a part of STBM activities) are low in both ODF and non-ODF villages. Only 31% of households in both ODF villages and non-ODF villages mentioned that their household members had attended a community meeting on sanitation or defecation behaviour or that their household had been visited by DoH personnel. This finding indicates the lack of coverage of and participation in awareness raising and or STBM activities facilitated by the DHO, Community Health Centre, or health cadres (i.e. <50%) which indicates a lack of knowledge among households.

Discussion

Household income not the biggest barrier for households. Some decision makers in Aceh think that open defecation in rural areas is associated with the lack of financial capacity of households to build their own toilets. This study showed that open defecation is not necessarily associated with poverty because those practicing open defecation were not always from the poorest families. As a result, a no-subsidy approach remains appropriate for these open defecators. Instead, continued investments in more effective behaviour change will be necessary to achieve open defecation free status.

Generating effective triggering. Understanding drivers that can motivate the community to use toilets may help STBM facilitators to prepare their triggering scenarios. In Aceh, where the main reason for use of toilet are the desire for a clean and healthy life, means the facilitators should continue to apply CLTS ignition techniques that focus to trigger sense of disgust such as demonstration of faecal-oral contamination and calculations of shit and medical expenses.

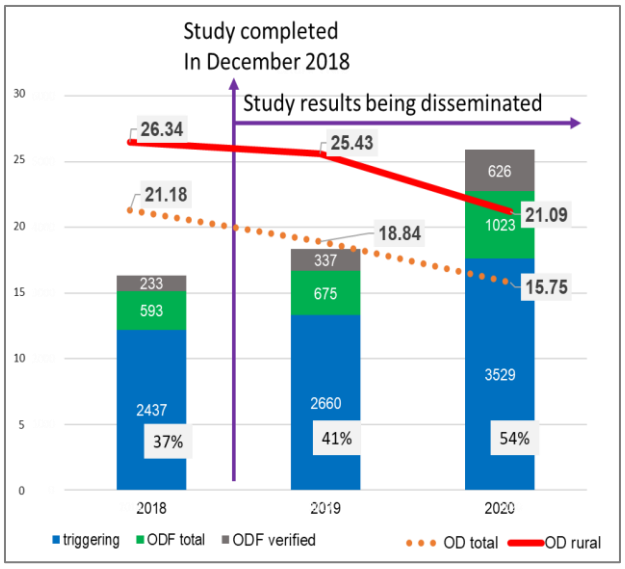
Changing social norms as the ultimate goal of the STBM programme. The study finding on higher levels of social norm in ODF communities compared to OD communities echoes the idea of continuing programme interventions until behaviour of communities has changed together with their social norm forbidding open defecation. In practice, a number of techniques from social norms theory can be used to promote this such as (a) multi-tiered institutional triggering; (b) value deliberation with traditional leaders;(c) magnifying the effects of change through group activities, and (d) normalization (UNICEF, 2015).

At post-triggering follow-up phase, the facilitators should also encourage the communities for establishment of local/village regulation on maintaining ODF status by forbidding OD practices in their areas including sanctioning this behaviour.

Diffusion beyond the study. The study results have been used to influence local government's policy, planning and budgeting. One of the key messages is that open defecation is not solely due to the unavailability of sanitation facilities or the economic capacity of the household, but open defecation is also an issue of behaviour and weak social norms. The study findings were used to advocate for an increase in local government budget for programmes such as STBM. Findings have been disseminated in sector strategic events including provincial WASH working group meetings, WASH sector planning and budgeting meetings at provincial and district level, STBM workshops with districts, and in a workshop with Islamic religious leaders and Islamic scholar associations.

UNICEF advocacy efforts have contributed towards an improvement in STBM performance across Aceh province, leading to an observed increase in sanitation outcomes (figure 7 below). The STBM programme has been given greater priority by local government in Aceh since 2019, with 800 villages triggered, additional 346 claim ODF villages and 289 being verified between 2019 to 2020.

Figure 7: Changes since completing the study



Source: E-Monev STBM and BPS, 2020.

Conclusion

OD practices in Aceh are a result of several factors including lack of household toilets, discomfort in using a toilet and weak social norms. OD practices were not always associated with the wealth or education levels of households.

Five key drivers found to influence the use of toilets include: a cleaner and healthier life, comfort, preventing disease, not disturbing others, and privacy. These drivers could trigger behaviour change during STBM implementation in rural communities of Aceh.

Social norms are likely to play a major role in supporting households adopting and sustaining new behaviour. Stronger social norms were observed among ODF villages that haven't experienced slippage. Therefore, STBM interventions in Aceh should aim to change existing social norms in communities towards sustainable sanitation facility use. It should start from defining the purpose of the intervention, applying the techniques from social norm theory until the development of local regulation to maintain ODF practices jointly with community members is enforced.

As a community-based approach, lack of participation in STBM implementation activities across study areas may have contributed to slippage in ODF villages and difficulty in achieving ODF status in non-ODF villages. Participation in STBM activities must be strengthened in order to improve the effectiveness of STBM approach in rural Aceh.

Recommendations

The effectiveness of STBM as a behaviour change approach in Aceh can be strengthened by three key actions: (1) triggering based on the five key drivers for toilet use found in the study (2) increase participation of communities in STBM activities by engaging more religious leaders (3) designing STBM activities to achieve not only behaviour change but also to change social norms in communities for sustainable toilet use. The study findings can be also used by CLTS facilitators to prepare effective triggering scenarios.

A similar study in countries where open defecation is prevalent would help local authorities to formulate specific strategies towards the achievement of ODF provinces and eventually increase their investment in related activities and strengthen their enabling environment.

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Photo Credits

Acknowledgements

UNICEF values its partnership with the Government of Aceh, District Government of Pidie and Yayasan Aceh Hijau, an NGO implementing partner, who are committed to improve the lives of children through fulfilment of water, sanitation and hygiene rights. Jamie Myers and Sue Cavill provided thorough reviews and editing of the document. The author would like to thank HanChul Kim and Brooke Yamakoshi (UNICEF, EAPRO) for helpful feedback and Anu Paudyal Gautam (UNICEF HQ) for final review.

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Document No: WASH/TP/19/2021