SUSWA BC DESK REVIEW

V.03 - 25/01/2025

NIRAS

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Objective / Abstract

What can we do to sharpen our approach of Behaviour Change Communications (BCC), especially related to outcome area 3?

SUSWA impact and outcome statements both require a focus on how to change behaviour – sustainable WASH behaviours (Impact statement) and improved hygiene practices (outcome statement).

SUSWA results framework and targets do, however, not strive to measure change in behaviour, with the targets for sanitation being related to number of toilets constructed or improved (despite indicator 21 'number of people having permanent access to improved sanitation facilities and **using them',** but no plan in place for how to measure this apart from self-reporting in the form of surveys.

Infrastructure is a (the?) crucial aspect of WASH behaviours, and for households to choose to construct or improve their own toilets, a change in attitude, social norms or knowledge may be needed in addition to access to materials and skilled masons for the right prices.

Despite the targets focusing on the number of toilets, I argue it is important to shift a focus to 'toilet use' (compared to 'toilets constructed') for SUSWA approach, as one of the lessons from the campaign to end open defecation in Nepal (and elsewhere) was that simply having a physical toilet does not mean ODF, and in particular, does not mean maintenance and sustained upkeep and improving of the toilets (and thus, the toilet use behaviour).

Further, in line with national Total Sanitation goals, SUSWA does have an indicator for Total Sanitation, with using toilets, ending any slippage back to open defecation and washing hands at critical times, are targets that require concrete change in behaviour.

An important question for SUSWA thus becomes – how do we change toilet use and handwashing behaviour. SUSWA has a Sanitation and Hygiene Implementation Plan, outlined by SUSWA Sanitation Specialist. An important step in the plan is 'Post Triggering' for behaviour change. But what 'triggers' work the best in SUSWA working area?

Is what we are doing/planning enough based on research/other projects experience?

What are others doing/what can we learn from them?

Should we have a 'new' strategy, improve what we have, or are we doing ok?

The objective of this desk review is to give answers through these questions by looking at what has been done before, drawing especially on the past Finland-Nepal projects of RWSSMP and RVWRMP as well as what other projects are currently doing in Nepal. The short paper outlines common approaches like CLTS, Ranas, SANIfOAM, WASH-C-OMB and aims to place them in the context of Karnali. Finally, there is a recommendation for SUSWA to integrate best practices in its approach.

SUSWA BEHAVIOUR CHANGE FOCUS

Sustainable WASH for All, SUSWA, is a WASH project funded by the Government of Finland, Nepal and the European Union, being implemented with and in municipalities in the western province of Karnali.

As a water, sanitation and hygiene project (WASH), SUSWA's main objectives focus on improving governance for equal access and participation (Outcome Area 1); rehabilitating and constructing water supply schemes (OA2) and ensuring sanitation and hygiene, including dignified menstruation management practices (OA3).

SUSWA impact statement – requires a focus on behaviour.

Improved well-being and inclusive communities with **sustainable WASH services and behaviours** through local governments' improved capacity to achieve equal rights to WASH for all

People supported by the Project Municipalities have improved and equitable access to safe and sustainable drinking water and adequate sanitation services, dignified menstruation and **improved hygiene practices** paying special attention to the needs of women and girls and those in vulnerable situations

SUSWA approaches behaviour change from a communication perspective, with SUSWA behaviour change communication strategies and objectives can be found in the SUSWA C & V Strategy and Plan, which focuses on e.g., changing thinking on who provides and pays for WASH services, who participates in the process (OA1) and for right holders to demand safe (chlorinated) water (OA2).

For the objectives of a 'strengthened enabling environment and governance for sustainable WASH services and GEDSI, and 'Climate resilient, safe and functional water supply', change in behaviour is required, but the focus is outlined in SUSWA behaviour change and communication strategy.

Under OA3, to ensure sustainability of open defection free status and focus on underlying discriminatory social norms that affect menstruating women and girls and persons with disabilities to ensure access to all, requires a specific plan especially for the 'Total Sanitation' target. This plan is loosely outlined in the SHIP and overseen by SUSWA Sanitation Specialist. The approach is 'traditional' in the sense that activities are centered around capacity building (training, knowledge sharing) and awareness raising (information sharing). From The SUSWA C & V plan:

One important part of SUSWA communication will focus on behaviour change. On a household level, the overall approach of behaviour change communication is to bring about positive behaviour change - practice and maintenance – with regard to the issues of safe water, Sanitation and Hygiene. The focus is to empower the audiences with information at micro level, e.g., in meetings, training, and through household-specific total sanitation guidelines. Municipal, district and provincial level mass communication campaigns will be helpful in establishing the magnitude or seriousness of the issues, and to create awareness. It will also motivate support institutions, such as NGOs working in the area, to build upon the awareness created by mass communication campaigns.

Beyond this 'educational approach', the SUSWA C&V plan strives to incorporate learnings from behavioural sciene on e.g., emotions, triggering/priming, motivation, while centering SUSWA BC around hygiene:

For motivational cues that will trigger required behaviour changes across the audiences, it may be necessary for SUSWA to identify a common binding link that can address issues of safe water, sanitation and hygiene under a single umbrella campaign. Hygiene can function as somewhat an umbrella concept in communication, covering sanitation and safe water, while a focus on inclusion strives to ensure the community will work together and support those who may require extra support (e.g., senior citizens, single women headed households, persons with disabilities). Targeting pride and shame emotions has had a proven impact when it comes to sanitation and open defecation (e.g., community-led total sanitation), and needs to be combined with a sense of ownership for both individual and community hygiene to work for lasting change. Inclusive hygiene needs to be seen as a 'worthwhile investment' even for the poorest and underprivileged, and the target audience should be shaken into action. Safe water, sanitation and hygiene will be presented as something that is 'in your own & communities' hands' – both literally and metaphorically. For example, washing of hands or handling of food/faeces, while metaphorically speaking it relates to owning issues like water source management, construction and maintenance of household taps, getting sustainable toilets constructed, treatment (chlorination) of water and keeping your elected local government body responsible and accountable. This literal and metaphorical 'hand' can also be seen represented in the SUSWA logo. 'Hygiene is in your hands' could be a potential key message, see more on key messages in chapter 7.

Lastly, for ownership and sustained motivation and action, on community (and household) level, the 'objective' of communication needs to be concrete, with a clear path laid out and a goal that feels within reach. This will be done in SUSWA, for example, through communication on total sanitation through using household posters where households themselves can easily see what criteria for total sanitation they fulfil and what they still need to do.

SHIP strategy

SUSWA has a Sanitation & Hygiene Implementation Plan

The project aims to improve water supply, sanitation, and hygiene practices in the region. It focuses on strengthening governance, climate resilience, and menstrual management. The text also highlights the legal and policy provisions related to sanitation in Nepal, including the rights to sanitation as stated in the constitution. It mentions that although Nepal has been declared open defecation free, there are still challenges in terms of access to toilets. The text provides targets for improved sanitation facilities and institutional toilets under the SUSWA project. It also explains the definition of toilets according to the Joint Monitoring Programme (JMP) and the distribution of targets for different palikas (local administrative units) in Karnali Province.

As SUSWA indicators are centered on the construction of facilities, SUSWA SHIP focuses mostly on setting targets, based on the baseline, for each community.

From the SHIP:

"The main bases for the interventions of sanitation and hygiene rely on:

- Construction of new toilets

- Temporary to improved toilets

● Sherd to individual toilets

● Hygiene promotion/ total sanitation.

Sensitization:

There is need to have sensitization on the part of the communities, WASH agencies and the palika on the benefits of having improved sanitation. During the ODF campaign the triggering activities were conducted with the prime focus for the construction of the toilets to hide the shits. The construction of the toilets was done by the communities based on their financial capabilities. After the declaration of ODF, as communities have experienced the uses and relevance of the toilet facilities, there is a need to shift the so-called basic toilets towards the improved one. The shift on the part of the communities from the status of not having toilets to the basic one and the basic to the improved one does not happen overnight and at the wish only, this will require massive sensitization for the communities. As the sanitation context of Nepal has gone through a lot of upheavals in regards to gaining the ODF status and reflection of the slippage, the post ODF interventions should be built up with due focus on the activities related to sensitization which will deal with the importance of having the toilet facilities and rationale for further improvement.

Skills:

In most of the context, the toilets were constructed during the ODF campaign by the households themselves. The construction of the standard toilets requires the basic knowledge and skills which was lacking or was less for all the households in the past. It was not possible to mobilize the masons for the construction of the households toilets in all the context. With the improved knowledge and experience for the use of toilets, now it has been realized that there is intensive need and requirement to ensure the improved skills and knowledge for the construction or for the improvement of the toilet as scale.

Standards:

It has been widely observed and shared that the majority of the toilets have not maintained even the basic standards. The concerns in regard to the height, light, ventilation, width and the accessibility are very common. The standards of the toilets have direct relation with the use of the toilets. The more standards are maintained for the structure and accessibility of the toilets, the more use of the toilets is ensured. For the POST ODF interventions, the intensive focus will be required to sensitize the communities and the related stakeholders on the designs and standards of the toilets.

Supply Chain:

The supply of the WASH materials is essentially important to ensure the construction or the improvement of the toilets. In the past, the toilets were constructed with mostly the pans distributed from the government and development agencies. In the past, less focus was laid for the establishment or for the promotion of the markets that delivers the sanitation materials at all times. The sanitation market is so important which eventually takes the role to ensure the products suited with the demands of the communities on regular basis. Together with the local governments, SUSWA will make all the efforts to develop the interface of the markets. Through an intensive study together with iDE, SUSWA will come up with some innovative and viable technological options to cater the needs and aspiration of the communities. Further to this, the group of masons will be trained on the technological options who will further deliver the services for the construction or the improvement of the toilets at scale.

Sustainability:

As in other sectors, the prime focus of any interventions for sanitation and hygiene is to ensure to sustain the results. There should be due consideration to have proper institutional, technical, environmental, social and financial aspects. SUSWA will make all the interventions to address the aspects related to the components of the sustainability aspects.

In the SHIP strategy, post triggering and community action plan:

If the prime activities contributing a good level of understanding and awareness on the importance of having toilets at home are considered, the triggering activities at the community can be rated the foremost effective and efficient way to create motivation for the people on the ground.

As there are still 8% households not having toilets at SUSWA's palikas, significant level of post triggering[2] would be required further to create motivation, awareness and the leadership of the communities.

After post triggering, the community action planning will be done to realize the target of new construction or the improvement. The set of activities for the post triggering would differ and vary from one community and the others and mostly dependent on the local needs and dynamics, however the following will be but not limited to the set of activities for post triggering at the communities.

● Community interaction to assess the strength and areas for improvement in sanitation and hygiene

● Sharing on the benefits of having improved sanitation

● Door to door visits to expedite the construction or the improvement of the toilets and monitoring

● Hand washing demonstration

● Mobilization of the schools and health care facilities

Preparation of community action planning"

The localization is good, as these activities are tailored to the specific needs and dynamics of each community in order to effectively promote sanitation and hygiene practices. But the SHIP does not write out what these activities would be:

But what should be the content of this post-triggering, what is most effective?

To understand what type of behaviour toilet use (or non-use) in a specific context is critical for the development of appropriate interventions for behaviour change.

What does changing behaviour mean?

Post-trigering without a plan runs the following risk, from RV report:

"Absent such method, tools, and guidance, VDCs and VWASHCCs have come up with their own approach. Typically, their approach is to monitor the sanitation status of each household, educate them about their need for a toilet, and threaten with them with sanctions if they do not build one. While such approach

often brings results in terms of toilet construction, it does not necessarily lead to behavior change. (See further below)."

Total Sanitation From PIM

5.2 Triggering Total Sanitation Status /Focus on Covering Slippage

The Total sanitation guideline defines the basic sanitation services level as "Each household has an easily accessible clean toilet in the compound and is used by all family members at all times".

To maintain the ODF status and rights of all people to safe sanitation, the municipalities, supported by the PSU will implement and monitor sanitation and hygiene promotion activities at different levels;

A. Household Level

- Technical support for new toilet construction and improvements;
- Promotion and monitoring of:
    - use of clean toilets,
    - ensuring access to toilets to all family members at all times,
    - hand washing with soap, and hand washing facilities building,
    - use of utensil washing platforms and drying rack,
    - solid and animal waste management,
    - use of safe drinking water, consumption of water with chlorine and safe water at PoU with affordable water treatment options including Colloidal Silver (CS) filter
    - wastewater management.

The concept of the clean household will be developed with an aim to achieve five indicators covering knowledge and practice of Handwashing, safe water, safe food, clean house and use of toilet.

B. School Level

- Technical and Financial Support to improve user-friendly WASH facilities (water, toilet, hand washing station, MHM, waste management, gardens (including kitchen garden) etc.);
- Promotion and monitoring of:
    - use and functionality of WASH facilities,
    - use of safe water (with chlorine) and PoU Water treatment,
- Capacity building activities to child clubs, teachers, SMC/PTA etc.,
- Promotion of the school-community partnership in line with total sanitation.

C. Community level

- Awareness campaigns/Capacity Building related events for changing hygiene behavior,
- Promotion of the use of overflowing and waste water in home garden,
- Chhau-hut free campaigns and encouraging the use of tap/toilet for menstruating girls and women,
- Indoor smoke/pollution free campaigns,
- Promotion of total sanitized house/cluster declaration.

D. Municipality Level

- Technical and financial support to include/update the "Sanitation and Hygiene improvement plan" into the WASH Plan, and monitor progress yearly,
- Technical support to use NWASH to monitor/report sanitation progress,
- Technical & financial support to hire/train qualified human resources at M/RM level,
- Support to establish a supply chain of WASH materials.
- Participation in joint monitoring and ODF & total sanitation declarations.

Approaches and working modalities

The municipality will be implementing and leading all the activities of achieving Total Sanitation. As the new elected representatives at the local government (LG) have started the work from the start up of the SUSWA project, SUSWA will facilitate to have the joint commitment to lay due efforts for improved status of WASH and specially for total sanitation at the LG level.

In order to achieve the above indicators at communities/school level, all WASH stakeholders need to plan and mobilize jointly under the leadership of the municipality and focus to achieve the results as a common goal/target.

The Project shall provide the technical and financial support for the updating of municipal WASH plans by including the sanitation and hygiene improvement plans (focusing on total sanitation status achievement) on a cost sharing basis and by monitoring progress on yearly basis. Sanitation and hygiene related activities (as specified in the Municipal WASH plan) will be implemented under the leadership of municipalities in close coordination/collaboration with other active WASH organizations and development partners.

To achieve the results of WASH plan, municipality executives should realize that sanitation and hygiene improvement is a priority sector of the municipality. In this regard, several capacity building and awareness campaigns related events need to be organized at municipality level in Ward/communities and Schools and for the religious leaders to promote hygienic behavior.

The PSU will provide technical and financial support to conduct capacity building related events as needed by communities/municipalities and strengthen the supply chain mechanism by mobilizing the private sector/cooperatives.

Various sanitation and hygiene behaviors will be promoted through different behavior change communication (BCC) tools and campaigns for use of clean/safe toilet, access to water tap/toilet for menstruating women, proper hand washing/personal hygiene, solid and liquid waste management, household and environmental sanitation including improved cooking stoves (ICS) promotion, use of safe food, safe drinking water and WASH facilities improvements etc.

The PSU shall support designing the low-cost and user friendly sanitation and hygiene infrastructures and provide the technical support to improve the WASH infrastructures at household/school level.

Phase 2: Total Sanitized Post-ODF Situation

This phase includes all arrangements leading to sustainable hygiene and sanitation facilities and behaviors. Although the respective community/ VDC/ municipality themselves will identify and implement vi various hygiene and sanitation parameters during the post-ODF, the following indicators may be suggested to ensure that a Total Sanitation situation is achieved in the given area:- A. Five key hygiene and sanitation behaviors • Use of toilets; • Practice of hand washing with soap or cleaning agent at critical times; • Safe handling and treatment of drinking water (e.g Point of Use treatment) at households level; • Maintenance of personal hygiene (regular nail cutting, bathing, cloth washing, daily combing, tooth brushing etc.), and • Proper solid and liquid management in and out of the home. B. Household sanitation • All households should have toilet and hand washing facilities such as soap, washing platform, et • Availability of brush, brooms, cleaning agent, etc. at the toilet; • Covering food and water; • Regular cleaning of rooms, yards, and household compound; • Availability of managed animal shed; • Availability of covered waste water pit; • Access of safe drinking water; • Availability of bins/pits to collect/dispose solid waste, and • Availability of improved cooking stove/bio-gas (optional). C. Institutional sanitation • All institutions should have users-friendly clean, hygienic toilets with hand washing with soap station and proper waste management facilities, and • All schools must have Child, Gender and Differently-abled (CGD) friendly water, toilet and hand washing (with soap station) facilities including menstrual hygiene facilities. The schools must have garbage pit facilities within the school premise. • All institutions should keep their premises in clean and hygienic condition. III) Child, Gender and Differently-abled (CGD) Friendly Features • Child friendly features: include water taps, knobs and latches of toilet doors and windows at suitable heights and convenience for children at different ages. • Gender friendly features: the location of the toilet should be appropriately selected in a safe and secure place and the door, windows and ventilation should safeguard privacy. In addition to water, in schools and other public institutions, the toilet should have facilities for maintaining menstrual hygiene management. For example, a bucket with cover/ lid inside the toilet or an incinerator attached just outside the toilet is essential. • Differently-abled friendly toilet: should include a ramp up to toilet, sufficient space for a wheelchair in the passage, hand railing in the passage and, within the toilet cubicles, appropriate types of seating arrangements and support on the toilet

Ultra Poor Households Rural Water Supply and Sanitation National Strategy 2004 has indicated some proxy indicators to identify poverty. These are:- • Households having food sufficiency (security) for less than six months; • Households having daily wages as the main source of income; • Female-headed

households and/ or households without adult members and/ or households having physically disabled persons, and • Other relevant indicators agreed by the community.

Total saniation in SUSWA

SUSWA main hygiene behaviour change focus is therefore number of households fulfilling total sanitation criteria.

The current planned activities in Annual plans are:

- Capacity building to LG's on Total Sanitation
- SUSWA will prepare the training contents to the community and stakeholders based on the learnings from around the country. The WASH units will be trained and later WASH unit will roll out the capacity building at the community level.
- Mobilization of communities for total sanitation interventions with joint monitoring
- Mobilization of community including STF, champions and all related people for attaining results.
- Development of Total sanitation targeted communities

SUSWA Sanitation & Hygiene indicators

SUSWA activities in municipalities focus on training as well as awareness raising, and the infrastructure and 'educational' part are often sequential. Activities related to BC that are mentioned are 'triggering/post-triggering', 'total sanitation training', 'days celebrations', 'rewards and appreciations', 'community action plan'.

Community entry and collection of sanitation and hygiene related data and information
On site community meetings/ interactions/ discussions with the communities to plan for post triggering with wider participation of the communities.
3 days ToT on sanitation and hygiene and total sanitation (including SMs, stakeholders, champions)
Post triggering, sharing the changes over the years in terms of sanitation and hygiene, benefits of having toilets, any loop holes observed, who are most affected, stories from across the country
Preparation of community plan of action
Formation of supervision and monitoring team with roles and responsibilities

Reward and appreciations for the sanitation and hygiene champions (with the form of sanitation and hyigene materials)
Development and dissemination of appropriate IEC materials for the promotion of sanitation and hyigne.

Sharing the WUSC and with the engagement of the WUSC and key community members, sanitaition champions, the data collection to be done with the prescribed template.
WASH unit visits for the initial planning and relation building
Participatory training
WASH Unit staff facilitates the post triggering events preparing all the tools and techniques.
With the deseggregated data of the HHs including those not having toilets, for those requiring improvement and establishment of hand washing station.
7-11 members which is inclusive with at least 50% women and with the proportionate representation of all caste and ethnicity.
Based on the recommendations from community and ward level committees/ SMCs in reference to the outstanding support for the promotion of sanitation & hygiene and total sanitation.
In coordination with PSU, the IEC materials are to be developed.

More on Total Sanitation:

Total sanitation is the concept of developing the specific area with the provision of improved toilets, safe drinking water, hand washing with soap at the critical times, proper provisions for the waste management, household sanitation and food hygiene and ending of the open defecation. Development of the specific area with the provision of all these aspects takes longer time and the Guideline on Total Sanitation (2073) by the government of Nepal has envisioned to separate the total sanitation phases into two parts which are:

● Clean and hygienic area

After meeting the minimum targets of sanitation and hygiene related indicators, any specific area will be developed as the clean and hygienic area.

● Total Sanitation targeted area

Any specific area will be developed and declared as the total sanitized area with the fulfilment of the following key indicators.

o CGD friendly improved toilet

o Safe drinking water

o Hand washing with soap at critical times

o Waste management (solid and liquor)

o Environment sanitation (greenery and parks)

o Household sanitation and food hygiene

SUSWA has targeted to meet the total sanitation criteria more than 16,000 households and will follow the government guidelines and procedures. The total sanitation will be taken up step by step manner. As illustrated in the figure, the promotion of total sanitation will be taken up with 3-pronged approach. First the consideration will be laid for the construction and improvement of the toilets and ensuring the provision of safe water. The provision of the water supply services will be ensured with SUSWA's interventions from the construction of water supply component. As indicated with a block in the sanitation part, the communities will be engaged significantly during the construction of toilets and the water supply facilities.

Once the provision of toilets and safe water is ensured, then the interventions will be focused for promotion of hand washing with soap, dignified menstrual management and household sanitation together with food hygiene. Basically, the educational and promotional campaigns will be kicked off during this phase. The third phase consists of the prime interventions for the promotion of environmental sanitation which consists of fecal sludge management and development and maintenance of the greenery and parks. In the third phase, the consideration will be laid to have the procedures for proper enforcement to ensure the compliances for improved environmental sanitation.

PAST RV INITIATIVES (UTILIZING CLTS, RANAS AND SANIFOAM AND THEIR TAKEAWAYS)

RWSSP-WN & CLTS

Prior to RWSSP-WN working area being declared open defecation free RWSSPN initiated triggering activities to encourage sanitation behavior change in order to achieve an open defecation free community using a CLTS approach.

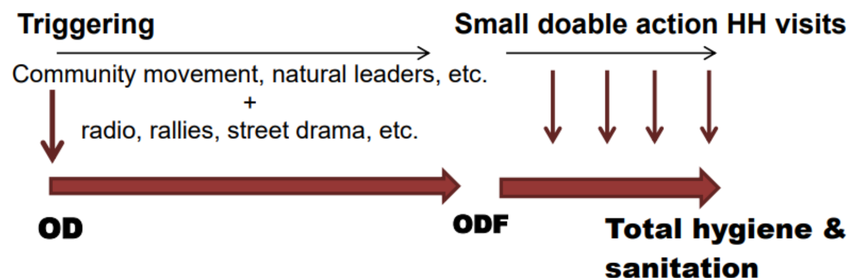
The process involved the entire community analyzing their sanitation situation which led to a sense of collective shame, disgust, and helplessness. This compelled the community to think and act, and they resolved to eliminate open defecation. Natural leaders emerged, and collective local action was initiated towards total behavior change in sanitation. See table 1 for 'triggering tools' used by RWSSPN, somewhat modified from the CLTS 'handbook'. Behavior change communication was also supplemented via other channels such as street drama, rallies, and radio broadcasts. The intended final outcome of this triggering process was the achievement of open defecation free wards and VDCs. Once a VDC was declared ODF (after a verification process), the second stage of behavior change began.

Post ODF in a community/household, RWSSPN behaviour change strategy for sanitation & hygiene focused on 'small doable action', and an expanded focus on supply and the enabling context. See RWSSPN strategy prior to ODF in Nepal, below.

Table 1 Community and individual triggering tools

Community triggering tools	Individual triggering tools
Walk of Shame Defecation mapping Calculation of feces/GUHU Calculation of feces/GUHU ingested by a person Cost of illness Respect to occupation Flow diagram for water contamination Respect of women Holy ignition Open defecation and begging Feces/GUHU to mouth transmission Water quality testing	Privacy If she/he had toilet at home Peer group pressure Fear Economic reason Demonstration effect Health Infidelity Reward/Incentive

Figure 1 RWSSP-WN Project model of behavior change



Box 1 THE GALIDRAA METHOD FOR HOUSEHOLD VISITS

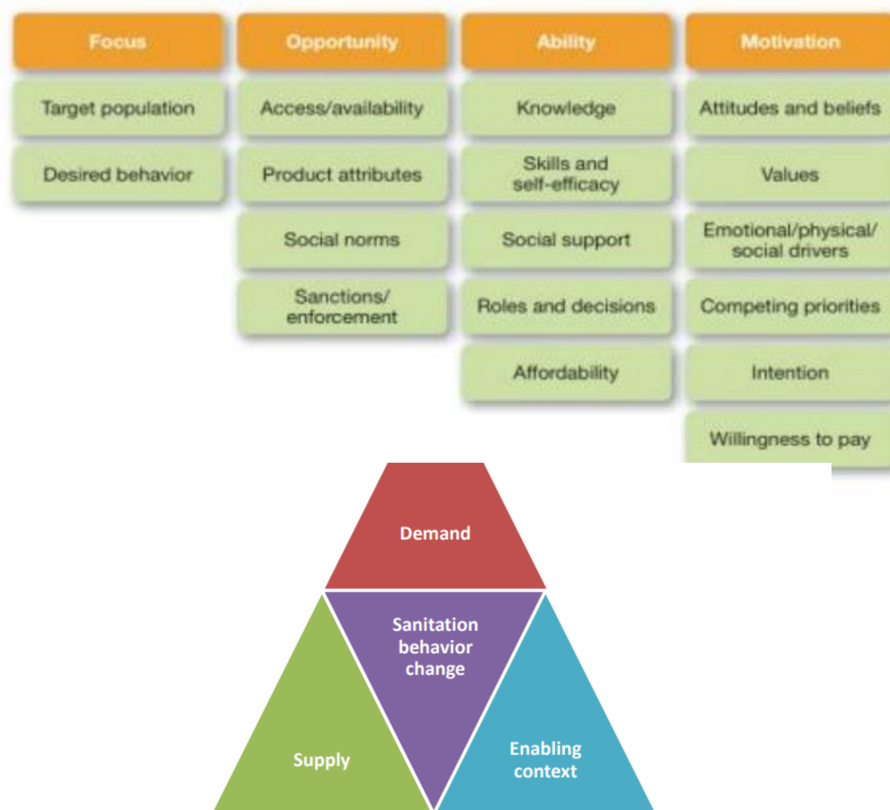
The GALIDRAA method has been developed by RWSSP-WN to help trained community volunteers to effectively carry out household visits. The method aims to help the volunteers remember the key steps to negotiate hygiene and sanitation behavior change with the household, including:

G	**GREET** the householder; ask about the family, work, the farm, current events etc. to build rapport. Tell the householder where you come from and your intension. Take permission to stay for a few minutes and discuss a few issues while they are working.
A	**ASK** about current H and S practices and other health issues.
L	**LISTEN** to what the women/men in the house say.
I	**IDENTIFY** potential barriers to change from what is said by the women/men.
D	**DISCUSS** and suggest women/men the different options to overcome the barriers
R	**RECOMMEND and NEGOTIATE** SDAs.
A	**ASK** them to repeat the agreed upon actions
A	Make an **A-APPOINTMENT** for a follow-up visit

RWSSP-WN & SaniFOAM (Research)

SaniFOAM is developed by the Water and Sanitation Program (WSP). SaniFOAM is a conceptual framework for analyzing and understanding sanitation behavior change. The letters “FOAM” stand for: focus, opportunity, ability, and motivation. SaniFOAM is designed to assist programmers to identify the key factors (determinants) which influence the practice of a desired behavior (e.g. usage of a toilet) in a target population. RWSSP-WN utilized SaniFOAM in order to review the success of the approach so far for BC.

Figure 3 SaniFOAM behavior change framework.



Within each of these areas, a set of critical questions guided the design of the assessment. These questions included:

Demand	• Do those who do not use improved sanitation have the opportunity to change? • Do those who do not use improved sanitation have ability to change? • Do those who do not use improved sanitation have the motivation to change?
Supply chain	• Are toilet building service providers and suppliers able to provide affordable and desirable toilets? • How complex does the existing sanitation supply chain make the sanitation shopping process?
Enabling environment	• Do decision makers and implementers understand the program’s approach? • Do decision makers prioritize sanitation? • Do decision makers buy into and prioritize the RWSSP-WN’s BCC approach?

A qualitative study design was applied. Interviews and focus group discussions (FGD) were carried out with the following participant groups:

Demand	*Female doers* *Male doers*	Defined as adults who own and use an improved toilet
	Female non-doers *Male non-doers*	Defined as adults who practice open defecation (regardless of toilet ownership status)
Supply	*Masons* *Suppliers*	
Enabling environment	*Field level BCC implementers* *VWASHCC members*	

Table three, below, provides an overview of the field research activities. A total of 17 FGDs and 31 interviews were carried out.

The results of the CLTS based efforts were mixed.

From 2014 results:

Key findings

- √ Triggering has not been systematically and widely implemented. As a result, many community members have not been 'triggered'.
- √ Many volunteer triggerers have become inactive soon after their training.
- √ Triggering activities have been well implemented and *can* make a strong impact.
- √ VDC and VWASHCC members do most of the sanitation promotion – their approach is mostly to 'educate' and blame / threaten those without toilets.
- √ VDCs do use a variety of communication channels to promote sanitation; however, community resources could be better mobilized to integrate sanitation promotion into their activities / work.
- √ Door-to-door visits by VDC officials and VWASHCC members is the main BCC approach used – but one for which the RWSSP-WN has not method, tools, and guidance.
- √ The current process monitoring and supervision mechanisms are insufficient to alert the RWSSP-WN's management team to BCC / triggering implementation issues.

Community members who had been exposed to triggering activities reported that the experience had made a strong impression on them. Community members reported having been exposed to and affected

by the following activities: walk of shame, glass of water, feces calculation, and defecation mapping/community mapping. Those who had been exposed to the first three activities reported feeling disgusted and convinced that they were eating feces. The female community member, who had been exposed to defecation/community mapping, reported feeling ashamed of her toilet-less status in front of her peers. **Among those exposed to triggering tools, several reported taking action to build or complete their toilet shortly after the exposure**

Negative BCC messages are common. The RWSSP-WN's triggering approach calls for BCC facilitators to refrain from 'educating' villagers and telling them what is good and bad. In actuality, VDC and VWASHCC members, who do most of the door-to-door sanitation promotion, **tend to engage in such 'educating' and often focus on negative, blaming messages.** The assessment team had the opportunity to see this play out when non-doer FGDs were joined by VWASHCC members. On these occasions, the VWASHCC members loudly blamed non-doers for their ignorance and backward ways and lectured them about the need for a toilet.

Social Norms were found to have changed and to be an important motivator (not beliefs or attitudes)

Social norms: When people see their neighbors changing, they change too. Scientific research has shown that our behaviors to a very large extent are determined the norms of the social networks in which we are embedded (Christakis and Fowler, 2011). This dynamic could also be observed in the VDCs where we interviewed men and women with and without toilets. In VDCs where an increasing number of households were building and using toilets – such as Bhujuwa and Rampuruwa VDCs, Nawalparasi – residents had begun to see having and using a toilet as the social norm. Some doers explained that they had built a toilet because they saw everyone around them do the same and did not want to be "left behind" (Toilet owner, woman, Chodki Ram Nagar VDC, Rupandehi). Those who were "left behind" shared that they now felt that a social stigma was attached to open defecation, which they had not felt when everyone engaged in the practice: "Open defecation was common before, but now many people use toilets. We feel ashamed that we are still defecating in the open" (Non-doers, women, Bhujuwa VDC, Nawalparasi). Women appeared to perceive a shift in the social norms surrounding open defecation and feel a need to conform to these new norms sooner than men. This is likely because open defecation – even where it is universally practiced – is associated with great risk of embarrassment and shame for women (see further below).

According to the SaniFOAM framework, access and availability refers to the fact that products, services, and assets/resources that enable hygienic latrine construction must be accessible and available to households, if they are to have the opportunity to practice hygienic sanitation (Devine, 2009). 13 It should be noted that we did not have the opportunity to discuss what type of training the masons had received and assess their knowledge about toilet designs and O&M. 14 According to the SaniFOAM framework "social norms – whether observed or inferred – are the tacit rules that govern how individuals in a group or society behave. Social norms may that permit or sanction specific sanitation practices may influence sanitation behavior" (Devine, 2009).

Beliefs and attitudes18: Open defecation seen as undesirable Doers and non-doers alike appear to see open defecation as an undesirable practice. When asked about the benefits of open defecation, non-doers frequently responded that there are no benefits to the practice at all and that using a toilet is

preferable. However, this common perception (attitude) tends to influence behavior only when a large number of community members have adopted the use of toilets. Where most community members continued to 17 Affordability refers to a household's ability to pay for a sanitation product or service or to engage in a sanitation behavior (Devine, 2009). 18 Attitudes and beliefs refer to individuals' understanding and perceptions of i) sanitation behaviors, ii) those who practice them, and iii) sanitation products and services. Beliefs are not necessarily factually correct and can work to prevent as well as motivate hygienic sanitation practices (Devine, 2009). RWSSP-WN Phase II BCC Assessment 22 defecate in the open, non-doers rather saw open defecation as a regrettable but unavoidable practice

Modesty of girls/daughters – a reason to build a toilet

Shame, disgust – especially for visitors –

Physical drivers: Comfort, convenience, safety,

Social driver: Status. Not much connection in 2014, but maybe now? In several cases, the male head of a household 21 An exception was a group of Muslim female doers in Kapilvastu, who cited prestige as being among the reasons they built a toilet. RWSSP-WN Phase II BCC Assessment 24 which had built a toilet with a subsidy revealed plans to build an expensive septic tank toilet and bathroom facility. When asked about his motivation, one man answered: "Now, my toilet is like dal bhat, but I would like some pickles, meat, and vegetables too" (Male doer, Baluhawa VDC, Kapilvastu district).

Privacy, shame, fear, disgust

Status, comfort, convenience

Other 2014 findings – difficult to get the WASH units to do anything with 'new methods'.

Importance of keeping a focus on behaviour change, not just building toilets!

2014 BCC findings - BCC STRATEGY EFFECTIVENESS

Conclusion no. 6: **BCC messages are mostly negative and 'educational' - they do not tap into strong potential behavior change drivers** Contrary to what the BCC strategy recommends the focus of VDC and ward level BCC efforts are negative messages that 'educate' non-doers about the need to change their ways and build a toilet. These messages have not been tested with the target group and appear to have no impact in terms of motivating non-doers to change. Current BCC taps into the potential drivers of behavior change in the target group – the value placed on women's modesty, shame, desire for status – to only a very limited extent (see table four). Further, almost all communication is verbal, 27 although visuals with benefit could be used to communicate complex messages, appeal to the target groups' emotions, and serve as repeated reminders (e.g. if displayed in locations that see a lot of people traffic). Our findings point to the following as the strongest potential drivers of sanitation access for women and men, respectively: Women · Perceiving having and using toilet as social norm (being left behind) · Shame / embarrassment / protecting one's modesty · Desire for status and prevention of gossip about family Men · Convenience and comfort of having a toilet near or in the home · Desire for status · Protecting modesty of, in particular, young women in the family Conclusion no. 7: BCC activities and messages leave potential barriers to sanitation

Takeaways from CLTS approach through SaniFOAM lens for SUSWA:

- Challenging to get WASH units to do something ‘new’ and not just ‘educate’
- Importance of keeping a focus on behaviour change, not just building toilets
- Enabling environment assessment in each ward for results
- Pre-test all comms material with target group!
- Analyze data we already have to see if we can identify differences between doers and non-doers
- Social norms should be a focus for communication, not changing ‘belies or attitudes’.
- BCC messages to tap into ‘positive drivers’!
- Identified drivers in 2014:
- Modesty of girls/daughters – a reason to build a toilet
- Shame, disgust – especially for visitors –
- Physical drivers: Comfort, convenience, safety,

Women

· Perceiving having and using toilet as social norm (being left behind)

· Shame / embarrassment / protecting one’s modesty

· Desire for status and prevention of gossip about family

Men

· Convenience and comfort of having a toilet near or in the home

· Desire for status

· Protecting modesty of, in particular, young women in the family

Use visuals and draw on emotions

SUSWA does well; **Toilet information materials**: Develop a set of toilet information materials with pictures of different toilet options and bills of quantity. Because too many options will make the sanitation shopping and decision making process even more confusing, seek to limit the number of options promoted via these materials. Posters showing toilets and their bills of quantity can be hung, for example, at the VDC office, health post, school, and other high-traffic buildings. If suppliers are willing, they may also be displayed by their store. Those who promote sanitation behavior change in household visits and small group meetings should also be provided with a set of toilet information materials (e.g. a flip chart with options). To ease the conversation about the toilet models and to give them a strong profile, consider branding them under a set of (related) names. **Use brand names that connote status.**

RWSSP-WN & RANAS

RWSSP-WN 2016 survey

In 2017 RWSSP-WN decided to trial 'RANAS' approach to behaviour change in these hard-to-change locations. 'RANAS' approach was developed by Prof. Moesler, and it explores behavioural factors related to Risk, Attitude, Norms, Ability and Self-regulation, comparing both 'doers' (in this case those who do use the toilet) with 'non-doers' (in this case, who do not use the toilet), and then uses the location specific outcome to guide the selection of the Behaviour Change Technique.

RANAS The Risks, Attitudes, Norms, Abilities, and Self-regulation (RANAS) approach to systematic behaviour change in a nutshell (EAWAG): Phase 1: Identify potential behavioural and contextual factors Phase 2: Measure the identified potential factors and determine those steering the behaviour Phase 3: Select corresponding BCTs and develop appropriate behaviour change strategies Phase 4: Implement and evaluate the behaviour change strategies This report will outline the findings and plans until Phase 3 above. The overall results will be published next year when the locations will be re-visited to see whether the targeted BCT did lead into better results than the 'business-asusual' approach to BCT selection, and 'no BCT at all'

RANAS approach as defined by EAWAG can be very detailed and complex, even a heavy exercise. The steps in RANAS are logical but numerous. EAWAG concludes that "although the complete RANAS approach takes several months, it is worth applying; it results in behaviour change strategies which (1) are tailored to the population, (2) have been proven to change behaviour effectively under local conditions, and (3) thus provide an evidence base for further interventions." (Contzen & Mosler, 2015).

In 2017 RWSSP The specific objectives of applying the RANAS approach in Kapilvastu is to explore whether the systematic behaviour change process will result in better outcomes than our business-as-usual approach to BCC. With this exercise we wish to understand better the behavioural factors that influence people's choice to use or not to use their existing toilets.

The RANAS [36] model includes a suggestion for standardized questions and analyses that can be used to measure the behavioural factors included in the model; however, the measurement system proposed is based almost entirely on individual-level behavioural factors, nor does it address the complex inter-relationships among psychosocial, technological, and contextual determinants. Applications of the RANAS model have operationalized many of its determinants through single questions in a survey [76] and more information is required on the reliability and validity of the proposed measurement system. - The Integrated Behavioural Model for Water, Sanitation, and Hygiene: a systematic review of behavioural models and a framework for designing and evaluating behaviour change interventions in infrastructure-restricted settings - PMC (nih.gov)

2017 RWSSP-WN recommendations for BCC:

- Number of behaviours being addressed: we tend to address too many behaviours at the same time

- Related number of messages: similarly to the above, we tend to provide too many messages at the same time, we do not really know if these are actually effective messages considering the audience

- Knowing the target audience: we tend to deliver the same message or apply the same BCT to everybody, missing out elderly, the children, specific ethnic/caste/social groups, often not being very clear on who is the target audience, whose actual behaviour is the most critical

• Measuring impact: we invest a lot of resources, both human and financial, to organize a range of events and trainings, and keep using the same Information, Education and Communication (IEC) materials, but we do not know if that is having any impact at all

RVWRMP & Total Sanitation

RVWRMP continued on the Small Doable Activities approach and apply it to Total Sanitation, with TS monitoring formats in the household – four visits withing a year (unless TS reached earlier).

The household visits are used for updating the status of Total Sanitation (TS) indicators through sub-indicators called Small Doable Activities (SDA). The Project's TS household monitoring formats are kept in the households, as shown in the next page figure. The TS monitoring involves criteria, e.g., about personal WASH behaviours, household cleanness, and Dignified Menstrual Hygiene.

The different criteria on hand washing with soap and clean water at critical stages include washing hands after use of toilet, before eating food, before preparation of food as well as handwashing after touching dirty place, after caring for sick people and after touching livestock or animal waste. Other personal hygiene indicators include regular bathing, nail cutting and brushing teeth.

The total number of household members involved in the study is 7 321. Field staff have made 15 981 visits (first to fourth visit) depending on the stage of the intervention

A clear improvement in handwashing with soap practises can be seen in the chart with the amount of "yes" answers reaching almost 100% by the fourth visit.

From the findings we can draw a conclusion that sanitation related behaviour change interventions are a very effective way of achieving improved health and internalised behaviour changes at community level. This enables transformative changes in people's lives through capacitating people for managing personal health and sanitation. In this regard, both infrastructure development that enables easier access to safe water, and a concrete behaviour change promotion component are necessary for successful and sustainable change

From RV 2021: From the findings we can draw a conclusion that sanitation related behaviour change interventions are a very effective way of achieving improved health and internalised behaviour changes at community level. This enables transformative changes in people's lives through capacitating people for managing personal health and sanitation. In this regard, **both infrastructure development that enables easier access to safe water, and a concrete behaviour change promotion component are necessary for successful and sustainable change.**

Total Sanitation household level data analysis from 2021:

RVWRMP This brief presents the RVWRMP Phase III working core Rural Municipalities school WASH status survey conducted to measure the results of the Three Star approach mentioned in the School Water Supply, Sanitation and Hygiene Procedure 2074 (Second Revision, 2076), Government of Nepal. This baseline report summarises the findings regarding achievement of school WASH indicators according to the project target to achieve 'Three Star WASH Schools'. This baseline report provides baseline level

information to support planning and implementation efforts in the 27 core RMs. The data presents the school WASH ‘Three Star’ indicator status at the end of February 2020. T

- School WASH procedure 2074, Annex 2: School Water Supply, Sanitation and Hygiene Self-evaluation Form School WASH focused on
- Water Supply
- Toilet
- Clean, Green & Hygienic Environment
- Food Hygiene
- Hygiene Facilities
- Hygiene Education
- MHM Facility
- Institutional Arrangement & Sustainability
- Disaster Risk Management
- Monitoring & Accountability

IN RVWRMP Communication and Visibility Action Plan for 2019-2020, has only the following mention of behaviour change:

4. Beneficiaries/WUSCs; general public and civil society

The objective of communication and visibility towards this audience is specified in the Guidelines:

“Raising awareness and promoting total behaviour change” (Section 3)

The targets are specified below as follows:

1. IEC material production, distribution and good visibility in local level events

2. Media advertisements and live activities

Communicating toward the Project objective

Objective of communication: “Raising awareness and promoting total behaviour change”

Modes of communication:

· Printed materials: leaflets, posters, stickers

· FM Radio: programs, public announcements and jingles

· Participatory communication: Street drama, cultural events

· DDC/VDC level inception meetings/workshops

Effective communication has a vital role in total behaviour change (TBC) in hygiene and sanitation as well as in nutrition in the Project catchment areas. The Behaviour Change Communication (BCC) materials

should be delivered in local languages through different information sources. The public will be reached by encouraging newspaper articles on issues by journalists who have been sensitized, producing radio jingles, public announcements and programs, printed materials (posters, comics and stickers), community activities in connection with festivals and specific celebrations, and organizing street dramas etc.

Messages to be given include:

· Hand washing with soap and cleaning agents at critical times

· Safe disposal of faeces

· Handling water and food properly

· Regular nail cutting, bathing, clothes washing, brushing teeth, daily combing

· Home gardens for nutrition & food security

· Menstrual hygiene and use of sanitary pads/materials

· Use of toilets and taps during menstruation

· Proper waste management in and out of the home

· Eating nutritious food

· Active participation of women and disadvantaged groups in project activities

Tips for Preparing BCC Materials

- Using active and powerful sentences and words
- Using words and phrases familiar to the target audience
- Insuring the visual communication and text are clearly related
- Avoiding diagrams, graphs and other complicated pictures
- Placing the pictures in logical order
- Placing related message and illustration together
- Not overcrowding printed materials.

The beneficiaries or the rights holders of the Project should be sensitized in the Human Rights Based Approach. Through creating access to information and human rights awareness on the rights to clean water and sanitation and who is responsible for providing the services in the communities, as well as the responsibilities of community members, the lines of accountability between the duty-bearers and right-holders will be strengthened and empowered respectively.

The Project supports empowerment through understanding gender and social inclusion (GESI). It is important to promote GESI also through communications. Social inclusion will be considered at all stages of communication especially when communicating about equal use of water resources and access to

other assets. Gender equality and the issue of Chhaupadi will be addressed through communication and sharing information about menstrual hygiene management (MHM). People with Disabilities also have the right to access water and sanitation, and their opinions and experiences should be included, as one of the disadvantaged groups that the project deals with. Participatory communication such as organizing street drama events or including the issues in festivals will be used in raising awareness on GESI issues.

From RVWRPM HRBA & GESI Strategy & Action Plan

Increasing access to sanitation and improving people's hygiene behaviour are key to reducing many diseases, decreasing the work burden of women to collect water and increasing attendance at school for girls. It can also provide economic benefits for both the poor and non-poor by reducing the number of sick days and financial costs from treatment of water-related illnesses.

Behaviour change and attitude are discussed intertwined.

SUSWA takeaways

Do we want to rethink M&E for behaviour change? Using same self-reporting.

In SUSWA – the 3 star approach is not monitored in SmartME (In Results framework says to

RVWRMP had no specific 'behaviour change' strategy or plan.

Far reaching conclusions were drawn in RV about 'improved behaviour' for handwashing, based on self-reporting of TS.

SUSWA current approach leans heavily on continuing the work of RVWRMP.

Other projects in Nepal: BCC and WASH

Behaviour-Centered Design - Hygiene Behaviour Change Coalition / WaterAID:

WaterAid's approach to hygiene behavior change is based on the Behavior-Centered Design (BCD) model.

Instead of knowledge-based, educational hygiene approaches, they focus on integrating hygiene behavior change into ongoing government-led interventions for sustainable outcomes. They listen to communities to understand their **universal behavioral determinants** and work with creative teams to design innovative approaches that tap into these drivers and motives to engender lasting positive hygiene behavior change.

To design, implement and ensure sustained behavior change, WaterAid has developed a five-step (ABCDE) approach:

Assess – determine what is known and unknown about current and desired behaviors.

Build – fill in the knowledge gaps by collecting data through formative research.

Create – via a creative, participatory process, and using results from the formative research, design a hygiene promotion package that includes concepts, materials, tools and activities that are attractive, surprising and engaging.

Deliver – execute the intervention so the target population is sufficiently exposed (at least 4–6 times within a year) to the program's activities.

Evaluate, monitor and adapt – determine whether the predicted environmental, psychological and behavioral changes were achieved. Use lessons from the intervention to inform future hygiene behavior change program design and packages.

WaterAid focuses on changing multiple key hygiene behaviors and supports governments to increase their capacity in executing, prioritizing and allocating funding for hygiene behavior change and sanitation interventions. They aim to tap into people's motivations and change the surrounding environment via provision of hygiene products/facilities with visual reminders to nudge and prompt improved hygiene practice. Repeat delivery of and sufficient exposure to consistent hygiene behavior change interventions is vital for sustained hygiene practice.

. To change hygiene behaviours, WaterAid aims to tap into peoples' motivations and change the surrounding environment via provision of hygiene products/facilities with visual reminders to nudge and prompt improved hygiene practice. Repeat delivery of and sufficient exposure to consistent hygiene behaviour change interventions is vital for sustained hygiene practice.

SUSWA takeaways:

Similar to e.g., SaniFOAM.

On paper the approach seems to bring 'nothing new', but looking at their work, far more efforts have been put into localizing and understanding determinants and designing intervetions accordingly. The biggest takeaways are:

- Use of visual reminders / prompts/nudges
- Repeat delivery
- OBSERVATION (structured observation & spot checks) used for monitoring, reported knowledge, behaviour and social norms only used as proxy indicators (as they should).
- The Disabling Menstrual Barriers research follows the Behaviour Centred Design model – an approach **adopted by WaterAid in its work on improving hygiene**

Social Behaviour Change Communications - SNV

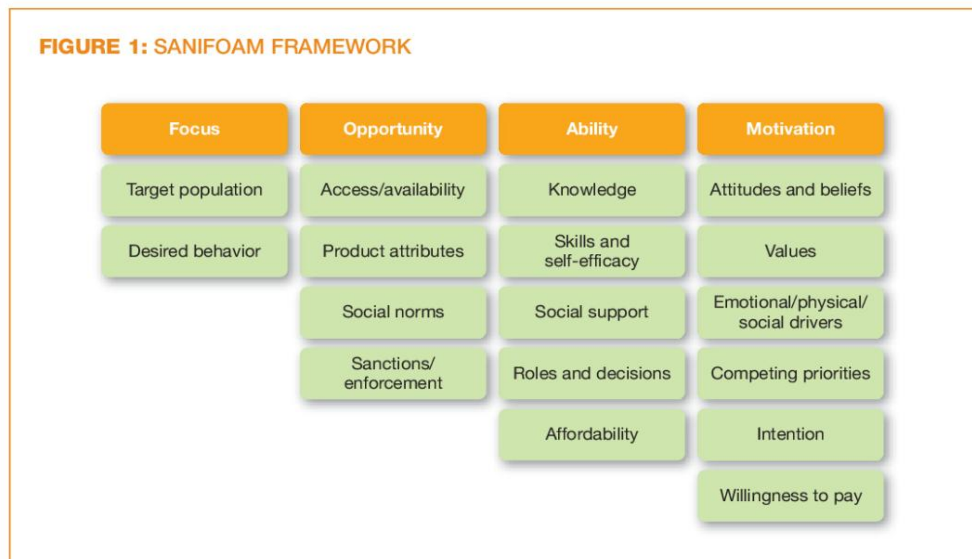
Last November 2021, SNV rolled out a Social Behaviour Change Communications (SBCC) strategy to address some roadblocks to citywide sanitation. The SBCC strategy was developed based on findings of a recent formative study undertaken as part of the WASH SDG programme.

Rapid formative study in the cities of Birendranagar, Nepalgunj, and Khadak exposes some barriers and enablers in achieving citywide sanitation.

2021-np-barriers-motivators-sanitation-behaviours-urban-nepal-snv.pdf (storyblok.com)

SaniFOAM & SNV (research)

SNV in Nepal used a **SaniFOAM** (Sanitation - Focus, Opportunity, Ability, Motivation) framework (Figure 1)1 to understand sanitation behaviours in target groups. The framework was used as a guideline to structure research questions and analyse findings\



* Devine, J. (2009), Introducing SaniFOAM: a framework to analyze sanitation behaviors to design effective sanitation programs, Water and Sanitation Program, WSP, Washington, DC, USA

Toilet use findings:

Gender roles in sanitation were highly separated. Women bear most of the responsibilities related to cleaning and emptying. In large households with frequent toilet use, confusion around cleaning responsibilities was a major barrier for a clean and functional toilet, with regular cleaning necessary to maintain hygiene. Findings also demonstrate nominal cases in some wards of the Terai region where daughters-in-law are not allowed to use the same toilet as their father-in-law or brother-in-law. However, this barrier to access has decreased significantly over recent years with shifting social norms.

Unclean toilets are one of the key reasons some people still prefer to defecate in the open. Seeing households with toilets continue to defecate in the open worked as a determinant for households not motivated to build toilets themselves. Many participants believed that having and using their own toilet is key to household sanitation and were aware of the importance of toilet emptying. Most said that every

user should clean the toilet after every use. Despite having toilet cleaning kits, failure exists to translate knowledge into practice.

The study found that the **primary motivator for building a toilet was the feeling of dignity and pride** associated with using one's own facilities in private, without facing humiliation while heading to a river or farms for open defecation. Participants also mentioned the safety and security of women, avoiding the risk of snake bites or attacks by animals at night, and avoiding the risk of physical injuries while going out in the dark, as motivators.

Devine, J. (2009), Introducing SaniFOAM: a framework to analyze sanitation behaviors to design effective sanitation programs, Water and Sanitation Program, WSP, Washington, DC, USA LEARNING BRIEF | WASH SDG PROGRAMME I NOVEMBER 2021 4

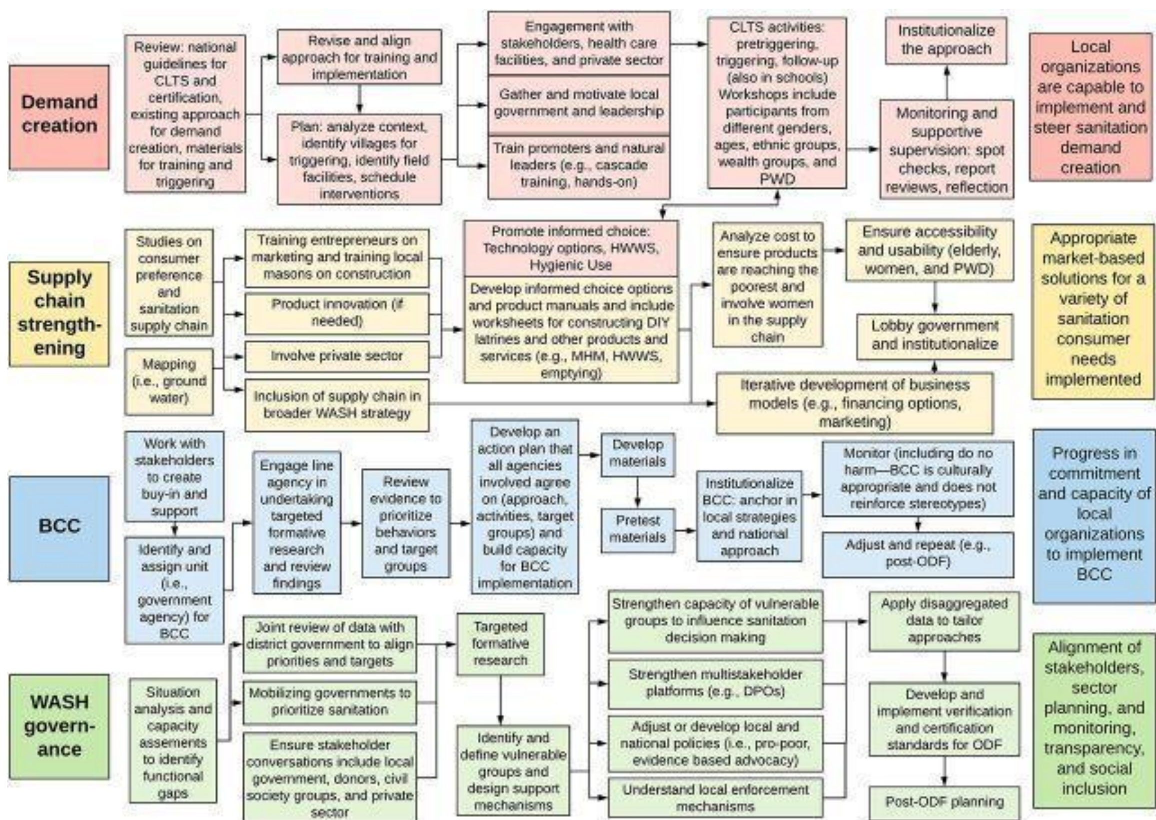
Other SNV research (they have done a lot)

Findings indicate the intervention has supported development of new norms around hygiene behaviours. Key drivers of sustained hygiene behaviour were habit formation, emotional drivers (e.g. disgust, affiliation), and collective action and civic pride; key constraints included water scarcity and socio-economic disadvantage. Identifying and responding to the drivers and constraints of hygiene behaviour change in specific contexts is critical to sustained behaviour change and population health impact.

Drivers of sustained hygiene behaviour change: A case study from mid-western Nepal - PubMed (nih.gov)

McMichael C, Robinson P. Drivers of sustained hygiene behaviour change: A case study from mid-western Nepal. Soc Sci Med. 2016 Aug;163:28-36. doi: 10.1016/j.socscimed.2016.06.051. Epub 2016 Jun 29. PMID: 27391250.

SNV flow chart:



- Interesting on SNV work in Karnali. Assessing Sustainability Factors for Rural Household Sanitation Coverage in Bhutan, Kenya, Nepal, and Zambia: A Qualitative Analysis - PMC (nih.gov)

SUSWA Takeaways

Drivers (emotions): Primary motivator for building a toilet was the feeling of **dignity and pride** associated with using one's own facilities in private, without facing humiliation while heading to a river or farms for open defecation.

Drivers (emotional): disgust, affiliation

Collective action, civic pride

Participants also mentioned the **safety and security** of women, avoiding the risk of snake bites or attacks by animals at night, and avoiding the risk of physical injuries while going out in the dark, as motivators.

Comfort, cleanliness

Social norms: Seeing households with toilets continue to defecate in the open worked as a determinant for households not motivated to build toilets themselves.

Habit formation

Barriers: water scarcity and socio-economic disadvantage, gender roles in cleaning toilets, Unclean toilets

C4D - UNICEF

UNICEF uses a C4D approach, to design appropriate C4D interventions, formative research needs to be carried out to **better understand the barriers and motivators/ drivers** behind prioritised behaviours. Partnerships with professional/ academic institutions needs to developed and trainings should be rolled out a course on C4D.

WASH paper by UNICEF presented in 2018

https://wedc-knowledge.lboro.ac.uk/resources/conference/41/Shrestha-2874.pdf

SUSWA Takeaways

SUSWA has not directly done any formative research to understand barriers/motivators/drivers -> we can learn from the work done by everyone else and just need to make sure we are utilizing learnings?

CLTS - Swachh Bharat Mission (SBM) in India

In many ways the Swachh Bharat Mission (SBM) is the world largest sanitation program, and perhaps the largest behaviour change campaign with the objective to end open defecation, targeting all of India 2014-1029 (phase 1) and 2020-21, 20024-25 (phase 2).

SBM is not only a toilet construction programme but a behaviour change mass movement

The campaign promoted the construction of toilets in villages using a method called **Community-Led Total Sanitation. But which in india, coupled with subsidies, is more known as Total Sanitation Campaign.** The government provided subsidies for the construction of 90 million toilets between 2014 and 2019, although some Indians choose not to use them. The campaign was criticized for using coercive approaches to force people to use toilets and was financed by the Government of India and state governments.

swachh-bharat-clean-india-mission.pdf (kpmg.com)

Learn more:

1. swachhbharatmission.gov.in2. gh.bmj.com3. orcid.org4. sdgs.un.org5. creativecommons.org6. dx.doi.org7. ndtv.com8. unicef.org9. factchecker.in

SUSWA Takeaways

- Message to come from province gov/popular elected leader. Project won't do.

- Think scale not drip – reach everyone, everywhere, all at once, change like recolution, supply follows demand creation
- Really large communication campaigns, with KPMG considers success, but with little to no proof of impact.
- The CLTS was considered in India to have focused mostly on shaming tactics.
- Strong political leadership was key, with the Prime Minister being a Chief Communicator.
- Celebrities promoting 'Clean India' did not encourage sanitary practices among rural people.
- What did work was school children writing letters to their parents about building toilets

■ As it builds on CLTS, nothing new for SUSWA per se, what is interesting is how the BCC has so little measured impact! Worth spending time on?

Approaches

Theoretical models of WASH and WASH-related behaviours included in the systematic review

CLTS

Kamal Kar developed in in 2000 for Bangladesh.

The approach has been successful in achieving long-lasting behavior change in at least 53 countries, and has been adapted to the urban context as well as post-emergency and fragile states settings. However, challenges associated with CLTS include the risk of human rights infringements within communities, low standards for toilets, and concerns about usage rates in the long-term.

Community-led total sanitation (CLTS) is an approach used mainly in developing countries to improve sanitation and hygiene practices in a community. It focuses on achieving behavior change in mainly rural people by a process of "triggering", leading to spontaneous and long-term abandonment of open defecation practices.

The approach uses community-led methods to raise awareness of the risks associated with open defecation, and encourages communities to recognize the problem and take collective action to clean up and become "open defecation free".

The approach mostly utilizes emotions of self-respect and pride in one's community, as well as shame and disgust about one's own open defecation behaviours.

CLTS used specifically in India, Kenya,Nepal, Indonesia, Ethopia, Bangaldesh.

The aim is collective action.

Study findings:

Multiple behavior change frameworks are employed in CLTS, we found that shame and disgust, although popular, were not reported as universal motivators that triggered communities; instead, improved health, dignity, and pride were cited more often. Skilled facilitators adapted their triggering techniques based on cultural considerations.

Another set of post triggering challenges relates to the supply of durable and affordable latrine hardware and technical support on latrine construction. Notably, we identified a debate over the nature of technical support that should be provided to communities for latrine construction.

CLTS programs do not follow uniform guidance on technical support, as communities are supposed to identify their own solutions to stop open defecation. Whereas some programs provided detailed technical support on latrine options, trained masons, or attempted to improve the supply chain for hardware, follow-up in other programs simply meant monitoring latrine construction.

However, our analysis of the literature suggests a need for additional guidance, as substantive concerns were expressed from both community and implementer perspectives about the quality of latrines built because of CLTS, potentially discouraging sustained behavior change and possibly explaining the minimal effects seen in health impact studies (Papafilippou et al. 2011).

We argue that programs should routinely incorporate technical support into the posttriggering stage, particularly when communities prefer durable latrines and express a need for this kind of support.

An eight-country evaluation of CLTS in Africa similarly recommended that in the absence of a sanitation marketing program, "the post-ODF approach should include a set of 'second-phase' interventions designed to provide advice on how to upgrade and improve sanitation and handwashing facilities using local materials

More rigorous coaching of CLTS practitioners, government public health staff and local leaders on issues such as stigma, awareness of social norms and pre-existing inequalities are important.

Community-Led Total Sanitation: A Mixed-Methods Systematic Review of Evidence and Its Quality - PMC (nih.gov)

Venkataramanan V, Crocker J, Karon A, Bartram J. Community-Led Total Sanitation: A Mixed-Methods Systematic Review of Evidence and Its Quality. Environ Health Perspect. 2018 Feb 2;126(2):026001. doi: 10.1289/EHP1965. PMID: 29398655; PMC

.

CLTS manual (Kar and Chambers, 2008).

During the pre-triggering phase, data about the community was collected by the facilitators, such as population size and numbers of existing latrines.

Subsequently, all members of the community were invited to a triggering event.

The facilitators mainly used three activities for the triggering event.

Firstly, an improvised map was drawn on the ground, and community members located their houses on it, and then added places they used for open defecation.

Secondly, medical costs were calculated for diarrheal diseases and compared to costs for latrines built from local materials.

Finally, a community action plan was established, which defined a date by which the community wanted to achieve the status of an open defecation free community.

Individuals that showed leadership qualities were selected as natural leaders and trained by Global Communities to better support latrine construction in their communities.

In the post-triggering phase, facilitators visited the community each week to support and train community members and natural leaders on latrine construction, and to help solve challenges that community members faced during this process.

SUSWA takeaways

Concerns: low standards for toilets, and concerns about usage rates in the long-term.

Second, although a high degree of flexibility is expected during triggering, lack of structure in post triggering activities may be less beneficial.

The goal of the triggering process is to let people see the problem first-hand, thereby evoking disgust. However, it has been reported that communities which respond favorably tend to be motivated more by improved health, dignity, and pride than by shame or disgust.[1]

SUSWA Market sanitation approach in line with findings on need post-CLTS/ODF

- Only works with rigorours coaching of those implementing

Step by step how to if needed - https://resources.hygienehub.info/en/articles/4151406-brief-overview-of-the-three-step-process-for-hygiene-programme-design

-based on images from the field, WASH units are doing similar activities already (this is easy to incorporate more systematically).

BUT steps are NOT followed. Worth it? Inconclusive results.

Ranas

1. The RANAS BCT - https://www.ranasmosler.com/ranas

RANAS - https://76ddba31-385f-4f1b-a8fc-00db654c6cbf.filesusr.com/ugd/accbe3_2540cf86e0e84a779156dd4a58aaab14.pdf

From the RANAS model this docs

Focus is on Norm

Norm BCTs – Norm factors

Others' behavior

Inform about others' behavior: point out that a desired behavior is already adapted by other persons.

Prompt public commitment: let people commit to a favorable behavior and make their commitment public, thus showing to others that there are people who perform the behavior.

Behavioral factors

Behavior change techniques Others' (dis)approval

Inform about others' approval / disapproval: point out that important others support the desired behavior or disapprove the unhealthy behavior.

Personal importance

Prompt anticipated regret: bring people to imagine the concerns and regret they would feel after performing undesired behaviors which are not consistent with their personal norms of living healthily and caring for their children.

Provide a positive group identity: describe people already engaged in the behavior in an attractive way, for example as modern and up-to-date so as to increase the attractiveness of the behavior itself.

Prompt identification as role model: ask participants to set a good example (e.g. for children) by engaging in the desired behavior so as to influence others' behaviors by one's own behavior.

And Persuasive BCTs –

Attitude factors

Beliefs about costs and benefits

Inform about and assess costs and benefits: provide information about costs and benefits of a behavior (omission) and conduct a cost-benefit analysis.

Use subsequent reward: reward the person each time she/he has performed the desired behavior or achieved the behavioral outcome.

Prompt to talk to others: invite participants to talk to others about the healthy behavior in question.

Feelings.

Describe feelings about performing and about consequences of the behavior: present the performance and the consequences of a healthy behavior as pleasant and joyful and its omission or an unhealthy behavior as unpleasant and aversive.

Behavioral factors

Behavior change techniques

Barrier planning

Prompt coping with barriers: ask participants to identify barriers to behavior change and plan solutions to those barriers.

Restructure the social and physical environment: prompt participants to remove social and physical bolsters of the undesired behavior so as to interrupt habitual procedures.

Prompt to resist social pressure: ask participants to anticipate and prepare for negative comments from others or for pressures towards the undesired behavior.

Provide negotiation skills: prompt participants to reflect on others' perspectives to find compromises that benefit both sides and arguments bolstering them.

Remembering

Use memory aids and environmental prompts: prompt the participant to install memory aids or to exploit environmental cues so as to help to remember the new behavior and to trigger it in the right situation.

Commitment

Prompt goal setting: invite participants to formulate a behavioral goal or intention.

Prompt to agree on a behavioral contract: invite the participant to ag

This is due to there already being a culture in Nepal (among colleagues and others orgs) to organize Information BCTs – Risk factors, e.g., health knowledge, and Infrastructural, skill and ability BCTs – Ability factors, e.g., training, posters showing how-to etc.

RANAS AND CLTS

https://www.sciencedirect.com/science/article/pii/S0277953619307002

The core concept of the RANAS model is that behaviour change is driven by various psychosocial determinants that need to be in favour of a new behaviour (Mosler, 2012). These determinants are clustered in five factor blocks:

1) Risk factors include individuals' health knowledge, its perceived severity, and their vulnerability to it;

2) attitude factors include feelings about the new behaviour and the perceived costs and benefits of performing it;

3) norm factors include people's perceptions of others' behaviour and their perceived (dis)approval when an individual shows the new behaviour;

4) the ability factor block includes the knowledge of how to perform the behaviour and confidence in starting a behaviour, continuously performing it, and recovering it after relapse; and

5) the self-regulation factor block contains the individual's action plans for the behaviour, how he or she deals with barriers, self-monitoring (e.g., action control) and remembering the new behaviour and the commitment to performing the behaviour.

CLTS formed part of all four intervention arms, and public commitment and planning were added to this procedure after the triggering event.

Consequently, the CLTS intervention arms were combined and compared to the control group. Changes in the values for five of the psychosocial determinants of the RANAS model mediated the effects of CLTS on community latrine construction (see Fig. 3 and Table S7 in supplementary material). The intervention significantly increased community-level perceptions that others owned a household latrine (others' behaviour, B [SE] = 0.28 [0.05], $p < .001$) and increased the perception that community leaders approved latrine construction (others' approval, B [SE] = 0.15 [0.04], $p < .001$). The intervention also increased confidence in constructing, maintaining, and repairing a latrine (B [SE] = 0.12 [0.02], $p < .001$) and strengthened people's commitment to constructing their own household latrines (B = 0.08 [0.04], $p = .041$). Finally, the intervention promoted the formation of action plans for latrine construction (B [SE] = 0.43 [0.09], $p < .001$). These changes individually increased the probability of communities having higher latrine coverage

As classic CLTS alone promoted latrine construction very powerfully, the RANAS interventions were not able to add to its effectiveness. It remains an open question whether the RANAS interventions would work well if implemented prior to CLTS, or as a stand-alone intervention.

This study is the first to show that changes in people's mindsets are responsible for the intervention effects of CLTS on latrine construction. Following our hypothesis, positive changes in psychosocial determinants caused by participation in CLTS led to higher latrine coverage in the communities.

CLTS made participants more aware of the latrine construction behaviour of their social environment and led to an increased perception that community leaders approve of latrine construction. Participants in CLTS arms compared to controls developed greater confidence that they would be able to construct, maintain, and repair their own household latrine. They were more committed and more likely to form action plans detailing how, when, and with whose help to construct latrines. These changes were all positively related to a higher probability of constructing latrines.

The relevance and effectiveness of changes in social norms for latrine construction, as in our case with others' behaviour and others' approval, have been reported by previous research (Bongartz et al., 2016; Dooley et al., 2016; Harter et al., 2018; Venkataramanan et al., 2018). CLTS was also able to make people feel more confident in constructing and maintaining their own household latrine, and this higher confidence helped them to actually complete this task. This finding is in line with previous research on WASH behaviours—for example, in the case of Burundi (Sonego and Mosler, 2014). In our study, CLTS also achieved its goal by strengthening peoples' commitment to latrine construction. Commitment is the driver that transforms a plan into action and, within the RANAS model, is therefore located in the self-

regulation factor block (Mosler, 2012). The role of commitment as an important predictor of hygienic behaviour has been shown by previous research in the WASH sector (e.g., for hand-washing in Ethiopia) (Contzen and Inauen, 2015).

SUSWA takeaways

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Overview of the COM B Model.

The COM-B model can be used to categorise barriers into three groups.

1. Capabilities - refer to a person's physical or psychological ability to perform the behaviour.

2. Opportunities - refer to anything in the physical or social environment that may encourage or discourage a behaviour.

Motivations - refer to internal reflective and automatic mechanisms that activate or inhibit a behaviour.

Since Huis et al.'s review, the possible reasons for sub-optimal behavior have been more completely described in a taxonomy called the Theoretical Domain Framework (TDF) [15]. The TDF condenses 112 behavioral constructs into 14 domains that affect behavior: 'Knowledge,' 'Behavioral Regulation,' 'Memory attention and decision processes,' 'Skills,' 'Goals,' 'Intentions,' 'Beliefs about consequences,' 'Beliefs about capabilities,' 'Optimism,' Social/Professional role and identity,' 'Reinforcement,' 'Emotions,' 'Social influences,' and 'Environmental context and resources.' These 14 domains are further condensed into the COM-B model's three components, which exclusively and exhaustively explain why behaviors do or do not occur. The three COM-B components (and subcomponents) include Capability (physical/psychological), Opportunity (social/physical), and Motivation (reflective/automatic); the 'B' stands for Behavior. If even a single COM-B component is lacking, then a desired behavior is less likely to occur.

The Barrier Analysis methodology

The Barrier Analysis survey is a formative research method that identifies determinants - barriers and enabling factors – that influence adoption of specific behaviours by a target group in a project area. The following determinants are assessed through a Barrier Analysis survey:

Determinant	Definition
1. Positive consequences	What positive things the individual believes will happen as a result of implementing the behaviour (advantages)
2. Negative consequences	What negative things the individual believes will happen as a result of implementing the behaviour (disadvantages)
3. Self-efficacy	An individual's belief that he / she has the knowledge and skills to implement the behaviour
4. Social norms	The perception that people close to the individual think he / she should implement the behaviour
5. Access	Degree of availability of the products or services needed to implement the behaviour
6. Cues for Action	The ability of an individual to remember to implement the behaviour
7. Susceptibility	An individual's perception of how susceptible they are to the problem the behaviour is meant to address
8. Severity	An individual's perception that the problem (which the behaviour is meant to address) is serious
9. Action Efficacy	An individual's belief that by practising behaviour one will avoid the problem (which the behaviour is meant to address)
10. Divine Will	An individual's belief that it is God's will that the problem exists and that they are powerless to overcome it
11. Policy	Laws or regulations that affect access to products and services or regulate behaviours
12. Culture	History, custom, lifestyle, and values of a self-defined group which may influence implementation of a behaviour
13. Universal motivators	Factors found to motivate most people, irrespective of other variables

The Barrier Analysis methodology

seeks to identify the specific determinants that differ significantly between 'doers' and 'nondoers' of a particular behaviour, and to tailor project behaviour change strategies and approaches to address the determinants identified.

Utilise findings to develop project-specific DBC Frameworks, which will answer the following questions:

• Which are the most important determinants influencing adoption of the behaviour by the priority group?

• Which strategies are needed to address the determinants?

• Which activities will be implemented in support of each strategy?

As per the standard Barrier Analysis methodology, the minimum sample size for each behaviour is 45 Doers and 45 Non-Doers.

IBM WASH The integrated Behavioural Model for Water, Sanitation, and Hygiene (IBM-WASH)

e identified 15 WASH-specific theoretical models, behaviour change frameworks, or programmatic models, of which 9 addressed our review questions. Existing models under-represented the potential role of technology in influencing behavioural outcomes, focused on individual-level behavioural determinants, and had largely ignored the role of the physical and natural environment. IBM-WASH attempts to correct this by acknowledging three dimensions (Contextual Factors, Psychosocial Factors, and Technology Factors) that operate on five-levels (structural, community, household, individual, and habitual).

The Integrated Behavioural Model for Water, Sanitation, and Hygiene (IBM-WASH) represents our synthesis of these existing behavioural models, our review of the evidence base for a number of other behavioural determinants not emphasized in those models, and feedback from concurrent formative and pilot research as mentioned in the Methods. IBM-WASH takes the form of a matrix, with three dimensions (columns) and five levels (rows), consistent with the matrices of ecological frameworks

Table 3

The Integrated Behavioural Model for Water, Sanitation, and Hygiene (IBM-WASH)

Levels	Contextual factors	Psychosocial factors	Technology factors
Societal/Structural	Policy and regulations, climate and geography	Leadership/advocacy, cultural identity	Manufacturing, financing, and distribution of the product; current and past national policies and promotion of products
Community	Access to markets, access to resources, built and physical environment	Shared values, collective efficacy, social integration, stigma	Location, access, availability, individual vs. collective ownership/access, and maintenance of the product
Interpersonal/Household	Roles and responsibilities, household structure,	Injunctive norms, descriptive norms,	Sharing of access to product,

Levels	Contextual factors	Psychosocial factors	Technology factors
	division of labour, available space	aspirations, shame, nurture	modelling/demonstration of use of product
Individual	Wealth, age, education, gender, livelihoods/employment	Self-efficacy, knowledge, disgust, perceived threat	Perceived cost, value, convenience, and other strengths and weaknesses of the product
Habitual	Favourable environment for habit formation, opportunity for and barriers to repetition of behaviour	Existing water and sanitation habits, outcome expectations	Ease/Effectiveness of routine use of product

The Integrated Behavioural Model for Water, Sanitation, and Hygiene: a systematic review of behavioural models and a framework for designing and evaluating behaviour change interventions in infrastructure-restricted settings - PubMed (nih.gov)

Dreibelbis R, Winch PJ, Leontsini E, Hulland KR, Ram PK, Unicomb L, Luby SP. The Integrated Behavioural Model for Water, Sanitation, and Hygiene: a systematic review of behavioural models and a framework for designing and evaluating behaviour change interventions in infrastructure-restricted settings. BMC Public Health. 2013 Oct 26;13:1015. doi: 10.1186/1471-2458-13-1015. PMID: 24160869; PMCID: PMC4231350.

The F-diagram

is a conceptual framework that illustrates the various pathways through which fecal-oral diseases are transmitted. It helps in identifying key areas of intervention and understanding the multiple routes of disease transmission. The diagram is named after the five major transmission routes represented by the letter "F," which stands for:

- Feces: This refers to the transmission of diseases through contact with human or animal feces that contain pathogens.
- Fingers: This represents the transmission of diseases through contaminated hands, particularly when proper handwashing practices are not followed.

- Flies: Flies can carry pathogens from feces to food and surfaces, leading to disease transmission when these contaminated items are consumed or touched.
- Fields: Refers to the transmission of diseases through the contamination of soil and water sources with fecal matter, which can then contaminate crops and drinking water.
- Food: This represents the transmission of diseases through the consumption of contaminated food, either directly through contamination during preparation or indirectly through the use of contaminated water or utensils.

The F-diagram is a useful tool for understanding the different routes of disease transmission and identifying appropriate interventions to promote hygiene practices, such as handwashing, sanitation, and safe food handling, to prevent the spread of diseases.

SOCIAL NORMS – the driving factor of CLTS?

- Toilet use not normative, but descriptive!

Open defecation is a global public health issue. We applied **Bicchieri's Social Norms Framework** to diagnose this behavior and determine what type of interventions could be effective in the Indian context. We conducted a mixed method study in rural, urbanizing, and slum areas of Bihar and Tamil Nadu. Using data from randomly selected individuals (n=5052) we assessed toilet use, empirical expectations (beliefs about what other people do), normative expectations (beliefs about what other people think one should do), and the dependence of toilet use behavior on those expectations. We found that empirical expectations were a strong driver of toilet use, while normative expectations had negligible predictive value. Only a minority of respondents believed there were any negative sanctions for defecating in the open. **Taken together, these findings indicate that toilet use is a descriptive norm. We therefore conclude that nudges in the form of information about similar other's improved practices might be an effective behavior change strategy to improve toilet use.**

To sustain improved toilet practices, CLTS emphasizes peer monitoring and agreed upon social sanctions (Kar & Chambers, 2008). In this way, a new social norm is created since the normative component of what should be done is supported by the observation of compliance. Even though CLTS has helped many communities curb open defecation, its effectiveness can vary depending on the context it is implemented in (Pickering, Djebbari, Lopez, Coulibaly, & Alzua, 2015; Venkataramanan, Crocker, Karon, & Bartram, 2018). Specifically, in India the effectiveness of CLTS may be diminished by complex social structures, underlying norms, and entrenched preferences (Novotný, Ficek, Hill, & Kumar, 2018; Patil et al., 2015; Routray et al., 2015)

The remaining two types of collective practices include socially interdependent behaviors. The first are descriptive norms, which includes practices that people choose to conform to because they believe other people act in the same way. The belief that other people are acting in a particular way is called an empirical expectation. **For a collective practice to be a descriptive norm, people should act differently for different levels of empirical expectations. If toilet use were a descriptive norm, people would use toilets because other people use them, and they would not do so if they believed that others did not use toilets. The last type of collective practices are social norms.** Social norms are patterns of behavior dependent on one's beliefs about what other people think should be done. The belief about what other people think one should do is called a normative expectation. For a collective practice to be a social norm,

people’s behavior should be different for different levels of normative expectations. If toilet use were a social norm, people would use toilets not just because other people did so, but also because other people thought that people should use toilets.

STUDY:

Toilet use behavior: “Where did you defecate the last time you had to?”, asking participants whether they used a toilet or went in the open the last time they defecated. 2. Personal normative belief: “Society may think it is right or wrong to defecate in the open. Do you personally think it is right, wrong, or neither right nor wrong for someone to defecate in the open?” 3. Empirical expectations: “Out of ten members of your community, how many do you think used a latrine the last time they needed to defecate?” as well as “Out of ten members of your community, how many do you think defecated in the open the last time they needed to defecate?” 4. Normative expectations: “Out of ten members of your community, how many do you think believe that it is wrong to defecate in the open?” 5. Dependence of behavior on expectations using randomly assigned vignettes modeling situations of high vs low empirical and normative expectations (see Box 1).

Our study suggests that toilet use was conditional on empirical expectations or whether others are using a toilet, but not normative expectations in our study context. Based on the SNT diagnostic approach, this supports the conclusion that toilet use among our study population can best be described as a descriptive norm (Bicchieri et al., 2018). This is consistent with other recent studies that reported empirical expectations as a significant psychosocial determinant for toilet ownership (Alemu et al., 2018; Friedrich, Balasundaram, Muralidharan, Raman, & Mosler, 2020). This insight has several important implications. In 2018, when we conducted this study, there was an ongoing nationwide sanitation program (SBM) that was implementing extensive outreach programs and providing monetary incentive to encourage construction of toilets to achieve ODF communities. Many studies have assessed the impact of the ambitious toilet promotion measures and the role of social motivation in reducing open defecation throughout India (Alexander et al., 2016; Coffey, Spears, et al., 2017; Gupta et al., 2019). **Our insight that toilet use is conditional on empirical expectations suggests that at this point where people are building or have new toilets, altering these beliefs as a collective behavior change strategy might be an effective sanitation behavior change approach.** For example, if toilet use is sufficiently high, one can broadcast this fact through a variety of mediums. If use is low within a community, program designers can solicit pledges from community members of their plan to change, which can then be broadcast to update an individual's prospective empirical expectations (i.e., their belief about what people are going to be doing). Assuming individuals have the capacity to construct and use a toilet, we would expect these prospective empirical expectations to be self-fulfilling and therefore stabilizing behavior at that higher level, reducing the risk of slippage (Bicchieri, C., Muldoon, R., Sontuoso A., 2018). An additional possible message to broadcast when use is low is the direction of change the campaign has generated (i.e., that more people are using toilets) (Sparkman & Walton, 2017). This message also has an auto-catalytic effect, as hearing that others are changing serves as a motivator for others to change, which has a similar effect on others in the community ((Beniamino Cislaghi et al.,).

Next, our results imply that approaches like CLTS, which try to induce a social norm, using multistage participatory processes to coordinate shifts in normative and factual beliefs, and then enforce decisions to adhere to a new norm, may be redundant in the current Indian context. In an environment where many have This preprint research paper has not been peer reviewed. Electronic copy available at: https://ssrn.com/abstract=3977166 Preprint not peer reviewed 14 recently constructed and started to use a toilet, shifting empirical expectations of individuals to generate social pressures might be a more

efficient strategy. According to SNT, updating beliefs that more people around them use a toilet will lead to an increase in toilet use and may induce a natural emergence of normative expectations that will sustain exclusive toilet use. Although CLTS is effective in multiple developing country settings in increasing toilet construction its impact on exclusive toilet usage is inconclusive (Venkataramanan et al., 2018). India has unique sociocultural characteristics based on castes and religion which can impede participatory activities needed for collective action (Payal Hathi et al., 2016; Routray et al., 2015). The use of shaming in poor communities can also be judged unethical with lasting psychological impact such as feelings of poor wellbeing and anxiety among marginalized subpopulations (Bateman & Engel, 2018). Open defecation practices might also be harder to change through social norm setting in heterogeneous urban areas among transient residents (Lüthi, McConville, & Kvarnström, 2010). In addition, habits and beliefs about purity and pollution of using a toilet might be barriers that are not susceptible to disgust based triggers of visual feces in the one's community (Chambers & Myers, 2016; Coffey, Gupta, et al., 2017; Galvin, 2015). Many of the noted heterogeneity of impact from CLTS may be due to differences in community composition and willingness to engage in effective strategy planning. Our approach of assessing whether the social expectations are present within a given group, and how behavior depends on those expectations, suggest pathways to designing more effective levers of change. In the case of India, where coverage has improved however use remains a problem, shifting empirical expectations may be easier, relatively cheaper, and can inform appropriate social sanctions based on a changing community where more people own and use toilets. We also found that respondents were notably more likely to find it wrong for toilet owners to defecate in the open as compared to those without a toilet. It also suggests that when people are asked to give a judgement of how wrong it is for someone to defecate in the open, they seem to be imagining someone who owns a toilet. Although not directly tested, this finding suggests that there may be stronger normative social pressures for those who have toilets to use them than those who do not, pointing to the importance of improving people's access to toilets, as it not only increases their own propensity to use for individual reasons but also increases the social pressure on them to use. An enabling condition for the creation of a social norm of toilet use may be a sufficiently high level of community-wide toilet ownership. In India, the first SBM was concluded in October 2019 with reports of very high nationwide toilet coverage (Government of India, 2018). This suggests that anyone seen defecating in the open can be assumed to be an owner of a toilet or have access to one, and so they may be safely sanctioned.

Study from 2016 (?)

Health concerns, feeling of shame, disgust or pride, children's initiation, matter of privacy, security, convenience, comfort, and local code of conduct were the major motivating factors for building toilet and sustaining ODF. Furthermore, participants also mentioned that these factors also drove the respondents to construct toilet for the first time and continue its use. Key informants said that their children requested and motivated to practice sanitation and hygiene. More than half of the respondents (56%) had a feeling of shame on his/her neighbor constructing a toilet before them. It is remarkable to note that almost the entire respondents (99%) reported pride in having a toilet motivated them to continue to use and maintain it. Availability of land (space), materials, technical support, knowledge, and affordability in terms of cost were the enabling factors for constructing and maintaining toilet. Availability of land and materials relates strongly to easiness by which a household could construct or re-construct/repair their toilets. Interviewees opined that some of the households who did not have land were supported by nearby households. 56% of the respondents professed that they received enough fund easily for construction a toilet. It was found that 73% of respondents managed everything by themselves while constructing their toilets. Over half of the respondents (51%) got support because of their poor economic status. It was

found that nearly 78% of the respondents did not take loan for constructing their toilet. 57% of the respondents reported that shops were available to buy toilet cleaning materials nearby their village. It was found that an overwhelming majority of the respondents (91%) had space available to move/reconstruct the toilet if their pit fills up. It was found that 89% of the respondents were able to afford to maintain their toilet. Over half of the respondents (54%) reported that it was easy for every people to get the loan.

Social norms The study indicated that there were new social norms created because of sanitation social movement. For instance, 99% of respondent mentioned that everyone should use a toilet while only 5.8% agreed to the statement that everyone should defecate in open. About 12% of the respondents agreed that they will practice open defecation if everyone in their communities does so. Almost 90% expressed that they will fix SHRESHTHA, AHMAD & SHRESHTHA 4 their toilet or construct new toilet if their pit is filled up. About 97% of the neighbour agreed to the statement that everyone should use a toilet while 82% disagreed (82%) with the statement that "it is fine for everyone to defecate in the open place". It was found that more than one third (37%) of neighbours constructed toilet before the respondent constructed his/her toilet. 44% of the respondents reported of feeling bad for not making toilet before their neighbours. It was found that almost all respondents (99%) reported that pride in having a toilet motivate them to continue to use and maintain it. About two third of the respondent showed fears that they would be criticised by others for defecating in the open so idea of societal sanctions is real in most communities while 61% responded that warnings were given to people who defecates in open. These societal sanctions ranged from laws and regulations to fine and penalties and being omitted from community ceremonies, etc. Awareness of these sanctions was on average 69% but in some districts, it was as high as 96% which indicates that the norms has established.

Households returning to OD Among the 3.5 % of the households who abandoned the toilet, it was found that an overwhelming majority of the respondents (93 %) reported that they did not feel inconvenience and discomfort returning to OD. More than a quarter of the respondents (27 %) said that closeness of the bush made OD easier for them. Benefits from using toilet 93 % respondents reported that the use of toilet has contributed to decrease in incidence of diarrhoea while 28 % said that the cost spent in the treatment has decreased. Other dimensions WASH Coordination Committees (WASH CCs) at different level were found to be less active than during the ODF process. Most of the toilets in households and institutions lacked user's friendly toilets. Use and maintenance of toilets in institutions especially in schools and health facilities were heavily constrained. Local social norms have been created to maintain the ODF status in the community. Open Defecation is considered as a social crime in the community which averts OD in the community. ODF declaration process has noticeably contributed to maintain cleanliness and aesthetic condition of households, schools and communities. ODF campaign has promoted other environment-friendly initiatives like indoor smoke free communities, plastic bags free communities and waste free rivers. Lessons learned The specific lessons learnt from the study are summarized below: • Setting national and local level ODF targets have created a positive pressure. • Cross-sector collaboration is a crux of success. • Political commitment is necessary to create positive working environment. • Sanitation conference has generated stakeholders' tremendous energy & eagerness to propel ODF campaign. • Linkage of sanitation activactivities with local level cultural occasions give positive message and build community's ownership. SHRESHTHA, AHMAD & SHRESHTHA 5 • Building toilet is easier job than cultivating behaviors to use it. • Students and local leaders are powerful change agent. • Easy access to water is a key determinant for maintaining cleanliness of toilet and urinal. The ODF success in Nepal is well recognized across South Asian Countries as a result many sectors in Nepal namely health, education. protection, environment, etc. have started full coverage concept and have declared fully immunized, fully

literate, improved cooked stove, chhaupadi (tradition of segregating women from house during menstruation) free approaches well reflecting ODF as a social development agenda. Conclusions The findings from study suggest that ODF social movement has been very successful specially in terms of sustaining and retaining ODF status despite many challenges. Keeping in view the poor socio-economic conditions especially of the most marginalized communities in Nepal, the average slippage rate of only 3.5% (i.e., proportion of households still practicing open defecation) is acceptable. This study confirms creation of new social norms around sanitation and hygiene practices and it also identified major areas of improvement especially specific to some of so called low caste groups (e.g., Dalits). This includes high open defecation rate (more than 8%) and poor hygiene practices amongst Dalits posing threat to the sustainability of ODF if not addressed adequately on urgent basis. Key recommendations The study provided valuable insight to understand key behaviors associated with construction, use and maintenance of toilets. Following are the key recommendations proposed to address the identified issues: 1. Additional Guidance to WASH CCs: As majority of the WASH CCs at local level were found inactive after declaration of ODF zone, they should be properly guided by higher authorities formulating and implementing total sanitation strategies and action plans. Monitoring of ODF and total sanitation activities by WASH CCs at different levels have been found poor. Self-monitoring of ODF and total sanitation promotion activities should be established as a social norm at schools and villages through schools and WASH CCs. 2. Support for Construction, Repair and Use of Toilets: Still 3.5 % of the households did not have toilet and they were practicing OD, other 3 % has unimproved toilet and 9 % of households are using the shared toilet, 15 % toilet need repair hence all stakeholders should be informed and mobilized to build improved and repair the existing toilet with proper technical support. Social awareness and norms should be developed among the community for using toilet by women during their menstruation period. 3. Safe Disposal of Child Faeces: Focus should be given to mothers and care taker to safely dispose the feces of child into the toilet and washing hands after defecation and before feeding the child. 4. Massive Communication at Community Level on Local Conduct: This study showed that almost 33% households had knowledge about fine and penalties were provisioned in their code of conduct which motivated regular use of toilet. Local code of conduct should be massively conversed among community people. 5.Use of Motivators for Sustainability: This study found that health and pride were strong motivating factors for ODF sustainability. Household experience of better health and pride from long-term toilet use, either real or perceived, hence the focus should be given on these factors that drive households to use and maintain the toilets. 6. Promotion of Local Technologies and Innovative Financing Mechanism: The cost of sanitation was closely related to the ODF sustainability. Being able to use local materials to construct simple, low-cost toilets or without a financial outlay was a significant enabling factor for many households to have toilet, hence low cost sustainable toilet should be designed. Opportunities to access credit, for example through micro-finance schemes or community initiatives, may help to overcome financial barriers. 7. Children as Change Agent: Children proved to be instrumental as agents of change in communities. Though adult or household head tend to be the decision makers in terms of household resources and investment in most communities the children in their family or in community have applied pressure to construct toilet which has helped individual to build their toilet and community had achieved to use and maintain the toilet, and promote healthy practices such as hand washing with soap

Other initiatives

Health Communication Capacity Collaborative - strategic and evidence-based social and behavior change communication (SBCC), but also behavioral economics

Social and Behavior Change Communication (SBCC)

Social and Behavior Change Communication (SBCC) is the use of communication to change behaviors – including service utilization – and promote social change by positively influencing knowledge, attitudes and social norms.

SBCC goes beyond the delivery of a simple message or slogan to encompass the full range of ways in which people individually and collectively convey meaning. Among the powerful tools employed by SBCC programs are mass media, community-level activities, interpersonal communication, information and communication technologies and new media.

Effective SBCC is critical to improving behavior and health outcomes across the continuum of care. SBCC can be used to increase demand for and uptake of services, and improve consistent long-term maintenance of behaviors.

ffective SBCC starts with research and analysis to understand the context and the intended audience. Then, strategies are developed to coordinate key messages across multiple channels (print, community-level, social media, interpersonal communication, radio, TV) to reach the intended audience.

SUSWA already utilizes multiple levels and channels, but SBCC is strategic: SBCC programs are grounded in theory and designed using evidence that helps programmers understand the situation, the audience, and existing programs.

1. Identify motivators (ask WHY and WHY NOT)
2. Make it EASY for them to choose the 'right' option) According to behavioral economics, choices that require less deliberation have a "lower cognitive cost" and people are more likely to make them.)
3. Plan for Priming, heuristics and reminders to reduce cognitive cost

1. Choosing intended audiences

Segmentation is the process of identifying groups of people who share similar interests and needs relative to the behavior you want to change. Sharing common characteristics makes the group members more likely to respond similarly to the SBCC activities. Segmenting allows for targeted use of limited resources. Segmenting allows you to focus on the groups that would create the most change. It also helps ensure that you choose activities that are the most effective and appropriate for specific audiences and helps you develop customized messages and materials.

The first step in audience segmentation answers the question, "**Whose behavior must change in order to change the health situation?**" The answer should be found in the key findings collected from the situation analysis.

Primary audiences are the key people to reach with messages. These may be the people who are directly affected and who you want to practice the desired behavior. Or they may be the people who can make decisions on behalf of those who would benefit from the behavior. Primary audiences can be further segmented into sub-audiences.

For WASH - ?

Influencing audiences are people who can impact or guide behaviors of the primary audience.

Influencing audiences can include family members and people in the community, and can also include people who shape social norms, influence policies, or affect how people think about the behavior. It iscrucial to prioritize influencing audiences by how much they are likely to be able to impact change.

DEVELOP AUDIENCE PROFILES

Audience profiles are fundamental to an SBCC strategy. Audience profiles help bring to life each audience segment. This helps guide communication messaging and activity planning. The profile should embody the characteristics of the specific audience. It should tell the story of an imagined individual within the group who can represent the intended audience. Basing decisions on what could be a real person allows for more intimate knowledge of that audience segment and to better-defined and better-focused communication strategies. Consider the following:

- The profile is important to ensure the messages are tailored to members of this select group.
- If messages are tailored correctly, the key audiences will see themselves in the messages.
- Seeing themselves in the messages helps motivate them to take action.

Develop audience profiles for each audience segment using the information collected in the situation analysis. The profile consists of a paragraph with details on current behaviors, motivation, emotions, values, and attitudes as well as information such as age, income level, religion, sex, and place of residence. The profile should model the primary barriers to the desired behavior faced by the audience segment. (For example, the profile for a working mother of a 4-month old could indicate that her heavy workload in and outside of the home interferes with her ability to breastfeed exclusively.) The profile can include a name and photo that represents this person to help visualize who this person is and tell his or her story. It is important to keep in mind that:

1. No two audience profiles look the same since the data vary for each audience segment;
2. The best profiles use qualitative research as a source; and
3. Seeing themselves in the messages helps motivate them to take action.

If the information gathered in the situation analysis lacks detail on any audience segments, you might need to conduct additional research to address the gaps. For example, for all health provider audiences, it may be especially important to conduct formative research around provider attitudes and other drivers of their behavior (such as policies, training, supervision, or resources). Such information can be used to better inform the audience profile and the strategy.

Priming:

What words have positive associations Example smart in Nepal can be associated with global thinking and new technology. Smart household – primes audience to associate the household with intelligence and potential.

Heuristics:

heuristics—mental shortcuts to make decisions under constraints. When people see behaviors modeled for them, they develop a mental image that reduces the cognitive cost of doing that behavior.

Reminders:

Based on formative research of e.g., households caring about having toielts for guests, aim reminder campaigns at times of holidays when multiple guests are expected to arrive.

Campaign: son returns from Kathmandu and is unhappy with father for not having built toilet?

Example from HC3:

Underlying this success is an approach that uses not only creative, **strategic and evidence-based social and behavior change communication (SBCC)**, but also **behavioral economics.** Focusing on young couples, whose contraceptive use is lower than older couples, HC3 used formative research and pretesting to **identify the deep-seated motivations** that drive fertility management behavior.

It started with the fundamental 'why' behind fertility management behavior. In the words of respondents, fertility management provides their children with better care, a good home and education. In short, they wanted their children (and themselves) to survive and thrive both socially and physically. With these insights into couples' self- and parental investment motivations, HC3 designed approaches that used behavioral economics concepts and seamlessly incorporated them into a national campaign to promote delay of first birth, postpartum family planning and safe spacing of pregnancy.

The campaign set out to build on deep-seated motivations for fertility management and to make the means to that end—that is, the choice and use of contraceptive methods—*easier* for young couples. According to behavioral economics, choices that require less deliberation have a "lower cognitive cost" and people are more likely to make them. For the Smart Jeewan campaign, priming, heuristics (mental shortcuts we use to make decisions) and reminders reduced the cognitive cost of choosing family planning methods.

FINDINGS from reaserch / Some background assumptions

Barriers found from 46 studies:

Lack of available physical handwash resources

High cost of supply and material

Traditional knowledge, beliefs, behaviors

Ineffective handwash station design

Heavy weight and long distance to handwash resources

Competing priorities of household tasks and time

Inadequate household/community infrastructure

Lack of time for handwashing

Facilitators

Health promotion programs (10)

Hygiene knowledge/beliefs/values

Education on hand hygiene

Convenient location/placement of handwash supplies

Easy-to-use handwash station design

Easy-to-use handwash station design

Favourable soap quality and characteristics

Emotions that drive the need or desire to handwash

Accessibility to handwash facility

Ezezika O, Heng J, Fatima K, Mohamed A, Barrett K. What are the barriers and facilitators to community handwashing with water and soap? A systematic review. PLOS Glob Public Health. 2023 Apr 19;3(4):e0001720. doi: 10.1371/journal.pgph.0001720. PMID: 37074999; PMCID: PMC10115288.

What are the barriers and facilitators to community handwashing with water and soap? A systematic review - PMC (nih.gov)

We conducted qualitative analyses to identify factors related to the sustainability of sanitation coverage in Bhutan, Kenya, Nepal, and Zambia, 2 years after completion of the Sustainable Sanitation and Hygiene for All program.

Our data revealed behavioral, contextual, and service delivery factors that were related to the sustainability of sanitation improvements. Service delivery factors included follow-up hygiene promotion, access to construction materials, local government commitment postimplementation, functioning monitoring systems, private sector uptake of supply chain improvements, and capacity for innovation. Contextual and behavioral factors included poverty, soil type, road networks, social cohesion, desire for improved latrines, maintenance and cleaning, and knowledge of sanitation benefits.

Key Findings

- Innovative construction approaches, local government commitment, and adequate resource allocation can help address geographic and environmental challenges, including soil type and heavy rains that cause low-quality toilets to collapse, that hinder sustainability of household sanitation coverage.
- Community health worker programs, which represent local capacity for implementing demand generation and behavior change programming, enabled the sustainability of household sanitation coverage improvements through adapting programs based on cultural norms and dynamics. Community health workers were supported by tailored trainings led by SNV and local governments.

Sakas Z, Uwah EA, Bhattrai RK, Garn JV, Gc KH, Mutta A, Ndlovu K, Nyaboro F, Singh RP, Rinzin U, Snyder JS, Wangdi K, Freeman MC. Assessing Sustainability Factors for Rural Household Sanitation Coverage in Bhutan, Kenya, Nepal, and Zambia: A Qualitative Analysis. Glob Health Sci Pract. 2022 Dec 21;10(6):e2100724. doi: 10.9745/GHSP-D-21-00724. PMID: 36951284; PMCID: PMC9771455.

Assessing Sustainability Factors for Rural Household Sanitation Coverage in Bhutan, Kenya, Nepal, and Zambia: A Qualitative Analysis - PMC (nih.gov)

his paper reports on an evaluation of a water, sanitation and hygiene (WASH) intervention in mid-western Nepal, with particular focus on the drivers and barriers for handwashing with soap/ash and elimination of open defecation. The research was conducted during October–November 2014, two and half years following the intervention's end-point. Qualitative data were collected from the target community (n = 112) via group discussions, interviews and drawings/stories of ‘most significant change’. Households' handwashing/water facilities and toilets were observed. Analysis was informed by a model that highlights environmental, psychosocial and technological factors that shape hygiene behaviours across multiple levels, from the habitual to the structural (Dreibelbis et al. 2013). Findings indicate the intervention has supported development of new norms around hygiene behaviours. **Key drivers of sustained hygiene behaviour were habit formation, emotional drivers (e.g. disgust, affiliation), and collective action and civic pride; key constraints included water scarcity and socio-economic disadvantage. Identifying and responding to the drivers and constraints of hygiene behaviour change in specific contexts is critical to sustained behaviour change and population health impact.**

Drivers of sustained hygiene behaviour change: A case study from mid-western Nepal - ScienceDirect

WHY the need to go beyond awareness and knowledge:

The intervention proved scalable and effective in raising hygiene awareness. There was some evidence of an impact on soap use but not on the primary outcome of handwashing at key times. However, the results do not exclude that changes in knowledge and social norms may lay the foundations for behaviour change in the longer term.

Germ awareness increased as well as reported handwashing (a possible indicator of perceived social norms). Observed handwashing with soap on key occasions was rare (6%), especially after faecal contact (2%). Observed handwashing with soap on key occasions did not change 4 weeks after the intervention in either the intervention arm (-1%, 95% CI -2%/+0.3%), or the control arm (+0.4%, 95% CI -1%/+2%).

DO NOT believe reported norms – observation is the only way to go.

How we measure change…. Needs redoing. E.g., 'observed changed in behaviour' the goal instead of current results framework?

The effect of a soap promotion and hygiene education campaign on handwashing behaviour in rural India: a cluster randomised trial - PubMed (nih.gov)

Biran A, Schmidt WP, Wright R, Jones T, Seshadri M, Isaac P, Nathan NA, Hall P, McKenna J, Granger S, Bidinger P, Curtis V. The effect of a soap promotion and hygiene education campaign on handwashing behaviour in rural India: a cluster randomised trial. Trop Med Int Health. 2009 Oct;14(10):1303-14. doi: 10.1111/j.1365-3156.2009.02373.x. Epub 2009 Aug 25. PMID: 19708896.

Another example of where hyiene behaviour change campaign (by Unilve, aimed at schoolchildren and their m'thers) produced no observable difference in behaviour.

Effect of a School-Based Hygiene Behavior Change Campaign on Handwashing with Soap in Bihar, India: Cluster-Randomized Trial - PubMed (nih.gov)

Lewis HE, Greenland K, Curtis V, Schmidt WP. Effect of a School-Based Hygiene Behavior Change Campaign on Handwashing with Soap in Bihar, India: Cluster-Randomized Trial. Am J Trop Med Hyg. 2018 Oct;99(4):924-933. doi: 10.4269/ajtmh.18-0187. PMID: 30105966; PMCID: PMC6159589.

Reporting not to be trusted, Total Sanitation papers also not to be used for monitoring but as a nudge

This study confirms structured observation as the method of choice for the study of handwashing behaviours. The sticker diary method may be useful in large-scale surveys. Sticker diaries may overestimate HWWS at important occasions, but probably less so than conventional questionnaire tools.

Comparison of structured observation and pictorial 24 h recall of household activities to measure the prevalence of handwashing with soap in the community - PubMed (nih.gov)

Schmidt WP, Lewis HE, Greenland K, Curtis V. Comparison of structured observation and pictorial 24 h recall of household activities to measure the prevalence of handwashing with soap in the community. Int J Environ Health Res. 2019 Feb;29(1):71-81. doi: 10.1080/09603123.2018.1511772. Epub 2018 Aug 27. PMID: 30146894.

Challenge of achieving change in toilet use behaviour

he intervention included innovative and digitally enabled campaign components delivered over 2 days, promoting the upgrading of existing toilets to achieve use by all household members..

The study highlights the challenge in achieving high intervention intensity in settings where the proportion of the total population that are potential beneficiaries is small. Responder bias may be

minimised by masking open defecation questions as a physical activity study. Over-reporting of toilet use may be further reduced by avoiding repeated surveys in the same households.

Schmidt WP, Chauhan K, Bhavsar P, Yasobant S, Patwardhan V, Aunger R, Mavalankar D, Saxena D, Curtis V. Cluster-randomised trial to test the effect of a behaviour change intervention on toilet use in rural India: results and methodological considerations. BMC Public Health. 2020 Sep 11;20(1):1389. doi: 10.1186/s12889-020-09501-y. PMID: 32917160; PMCID: PMC7488773.

Cluster-randomised trial to test the effect of a behaviour change intervention on toilet use in rural India: results and methodological considerations - PubMed (nih.gov)

A focus on emotions:

We tested whether a scalable village-level intervention based on emotional drivers of behaviour, rather than knowledge, could improve handwashing behaviour in rural India.

At the 6-month follow-up visit, the proportion handwashing with soap was 37% (SD 7) in the intervention group versus 6% (3) in the control group (difference 31%; p=0·02).

This study shows that substantial increases in handwashing with soap can be achieved using a scalable intervention based on emotional drivers.

Effect of a behaviour-change intervention on handwashing with soap in India (SuperAmma): a cluster-randomised trial - PubMed (nih.gov)

Biran A, Schmidt WP, Varadharajan KS, Rajaraman D, Kumar R, Greenland K, Gopalan B, Aunger R, Curtis V. Effect of a behaviour-change intervention on handwashing with soap in India (SuperAmma): a cluster-randomised trial. Lancet Glob Health. 2014 Mar;2(3):e145-54. doi: 10.1016/S2214-109X(13)70160-8. Epub 2014 Feb 27. Erratum in: Lancet Glob Health. 2014 Apr;2(4):e207. PMID: 25102847.

Emotions - Increasing emotional empathy promotes hand hygiene behaviour, also in hospitals. Besides providing new impulses for the design of effective interventions, these findings bear theoretical significance as they document the explanatory power of empathy regarding a distal explanandum (hand hygiene).

A person-oriented approach to hand hygiene behaviour: Emotional empathy fosters hand hygiene practice - PubMed (nih.gov)

Sassenrath C, Diefenbacher S, Siegel A, Keller J. A person-oriented approach to hand hygiene behaviour: Emotional empathy fosters hand hygiene practice. Psychol Health. 2016;31(2):205-27. doi: 10.1080/08870446.2015.1088945. Epub 2015 Oct 15. PMID: 26359676.

Social beings

Having other people nearby after going to the toilet, increased handwashing by 30% in on eobservational study at a primary school

A challenge to find info on sustained behviour change

Additional consideration needs to be given to developing behaviour change models that emphasise factors related to sustained adoption, and how they differ from those related to initial adoption.

Sustained adoption of water, sanitation and hygiene interventions: systematic review - PubMed (nih.gov)

Martin NA, Hulland KRS, Dreibelbis R, Sultana F, Winch PJ. Sustained adoption of water, sanitation and hygiene interventions: systematic review. Trop Med Int Health. 2018 Feb;23(2):122-135. doi: 10.1111/tmi.13011. Epub 2017 Dec 8. PMID: 29160921.

Changes in water treatment, hygiene practices, household floors, and child health in times of Covid-19: A longitudinal cross-sectional survey in Surkhet District, Nepal - PubMed (nih.gov)

tkhis study evaluates the impacts of one of the largest WASH programmes ever attempted in a low-income country, the Sanitation, Hygiene Education and Water Supply in Bangladesh Programme (SHEWA-B). SHEWA-B was a 5-year programme that launched in 2007 and targeted 20 million rural people, aiming to improve hygiene practices, sanitation and safe water supply. SHEWA-B received $100 million in funding, which amounted to less than $1 per target individual per year. A key component of SHEWA-B was training community hygiene promoters (CHPs) to deliver WASH messages to households. CHPs are distinct from hired CHWs in that they are considered volunteers with a modest stipend. After 18 months, a midpoint evaluation revealed no significant effects on most behaviours or childhood illness [18].

n response to the failure to achieve midline targets, the SHEWA-B implementers made changes to the health promotion intervention, including: (1) focusing on households with children <5 years, (2) assigning CHPs to specific wards, and (3) rewarding high-performing CHPs.

In addition, the team added a nationwide mass media campaign to deliver radio and television messages across both SHEWA-B control and intervention areas in 2011 and 2012 [20]. An evaluation of the mass media intervention comparing the households before and after the campaign reported an increase in recall of WASH messages, use of soap and water during handwashing, and availability of soap and water at handwashing stations [20].

After 5 years, the SHEWA-B community-based WASH promotion intervention did not have the intended effect on knowledge, behaviour or childhood diarrhoea despite changes made to the intervention at the midline. Comparing endline to baseline, the intervention group showed minimal improvement compared to the control group in WASH knowledge. The intervention group showed an increase in observed handwashing before preparing food and after cleaning a child's anus at the endline compared to baseline, but not when compared to the midline. The analysis found no reduction in diarrhoea among children in intervention households in either phase. Thus, the modifications to the CHP component of SHEWA-B after the midline evaluation were ineffective at achieving the programme's goals.

SHEWA-B's lack of impact on knowledge, behaviour, or health may reflect sub-optimal implementation. An evaluation of SHEWA-B implementation demonstrated that only 47% of intervention households surveyed in 2011 and 2012 had met a CHP, suggesting that the programme was not available to everyone in intervention clusters as intended [32]. When asked, only 47% of CHPs could recall all key programme messages [32].

CHWs, the government- or NGO-hired counterparts to SHEWA-B's CHPs, tend to be more effective when they have a manageable workload, organised tasks, reasonable goals, supportive supervisors and community respect [33]. A qualitative study in Bangladesh found that financial incentives and feeling needed by the community were among the top factors cited for continuing as a CHW [34]. In contrast to the ideal CHW set-up, SHEWA-B's CHPs had a considerable workload, with a target of reaching 2000 individuals every 2 months. They were paid approximately one-half the payment of an unskilled labourer working full time [18]. Thus, the sub-optimal quality of CHPs could be due to insufficient training, supervision, targets or incentives for performance [32].

There is limited evidence on how to best scale WASH promotion interventions to achieve health outcomes. While current evidence is mixed, evaluations of large programmes have generally failed to show health benefits. The Global Scaling Up Handwashing Project in Peru improved knowledge, availability of soap, and handwashing, but did not improve diarrhoea or pathogen prevalence [14]. Similarly, studies on the Total Sanitation Campaign in India did not show changes in child health outcomes, including diarrhoea, parasitic infections, anaemia or growth [35, 36].

NUDGE

Nudges focus on the ‘choice architecture’ surrounding a given behaviour, aiming to alter the context in which a behaviour occurs rather than the conscious decision-making process related to the behaviour **37**. Nudges target automatic processes that may be more effective in promoting behaviour change than conscious reflection and informed, knowledge-based decision-making **38**. There are a variety of nudges, from policy programmes to opt-out retirement policies to simple changes to the physical environment that cue or prompt a specific behavioural outcome. For the purposes of this study, we focus on these environmental nudges that serve as a cue or trigger to an intended action. Although nudge research has primarily focused on high-income countries, the successful applications of environmental nudges to health behaviours are encouraging, with topics ranging from the promotion of healthy food choices **39**, **40**, reducing teen pregnancy **41**, promoting stair-use and walking **42**, **43** and reducing energy consumption and carbon emissions **44**-**46**. In low- and middle-income countries, environmental cues intended to trigger specific health behaviours have been tested in combination with messaging and promotional strategies, such as ‘kitchen makeovers’ consisting of eye-level decorations in celebration of new food hygiene behaviours combined with motivational and knowledge-based messaging in Nepal **4rr7**. However, few studies have attempted to isolate the effect of nudges on behaviours.

HANDWASHING FACILITY PLACEMENT

PLACE FACILITIES NEAR OR CLOSE TO LOCATIONS WHERE HANDWASHING SHOULD OCCUR.

› **This means:**
- near toilet facilities for use after visiting the toilet,
- near the lunchroom for use before eating, and
- near school entrances and exits to encourage use when students arrive and leave the school grounds.

PURPOSELY POSITION THE HANDWASHING FACILITY IN CLOSE PROXIMITY TO THE ACTIVITY THAT YOU WANT TO LINK TO HANDWASHING SO THAT IT IS DIFFICULT TO AVOID.

› **For example:** Place the handwashing facility directly in front of the toilet exit or next to the entrance of the lunchroom. If this is not possible, make a clear link between the two places, for example by using footpaths leading directly from the toilet to the handwashing facility.

PLACE FACILITIES IN AREAS THAT ARE VISIBLE TO OTHERS.

› Social pressure can have a positive influence on handwashing behaviours.

› Studies have shown that when handwashing facilities are visible to others, they are more likely to be used [22].

› **For example:** Consider using brightly coloured materials to build your handwashing fac or install brightly coloured soap dispensers.

MAKE HANDWASHING FACILITIES APPEALING.

› **For example:** Add mirrors above the handwashing facility.

ENSURE THAT THE HANDWASHING FACILITY IS ACCESSIBLE TO ALL (AGE, GENDER, DISABILITY).

› **For example:** Make handwashing stations child friendly and accessible to wheelchair users by adjusting the height and size.

› Ensure taps are easy to open and close.

ENSURE SOAP IS EASILY ACCESSIBLE.

› Attach a soap holder or soap dispenser to the handwashing facility that is clearly visible and easy to reach.

ENSURE THE FACILITY DESIGN CHOSEN IS AFFORDABLE AND EASY TO MAINTAIN.

› Choose a design that is appropriate for the resources available and can be maintained once installed.

CONSIDER HOW THE FACILITY DESIGN CAN ITSELF CONTRIBUTE TO BREAKING THE TRANSMISSION CYCLE OF DISEASE.

› Consider installing hands-free taps if possible, such as those that can be controlled with an elbow or foot, or if feasible, sensor activated taps and soap dispensers.

WHAT TYPE OF COLOURS, MESSAGES OR OTHER ELEMENTS WOULD BE EYE-CATCHING AND ENGAGING TO YOUR USERS?

- **For example:** Painted footpaths should be in a colour that clearly stands out from the colour of the surface they are painted on.

WHAT IS APPROPRIATE FOR YOUR TARGET USERS?

- Consider what is appropriate for the age group you are targeting.
- Consider what is, and is not, culturally acceptablein your context.

WHAT RESOURCES ARE AVAILABLE IN THE CONTEXT?

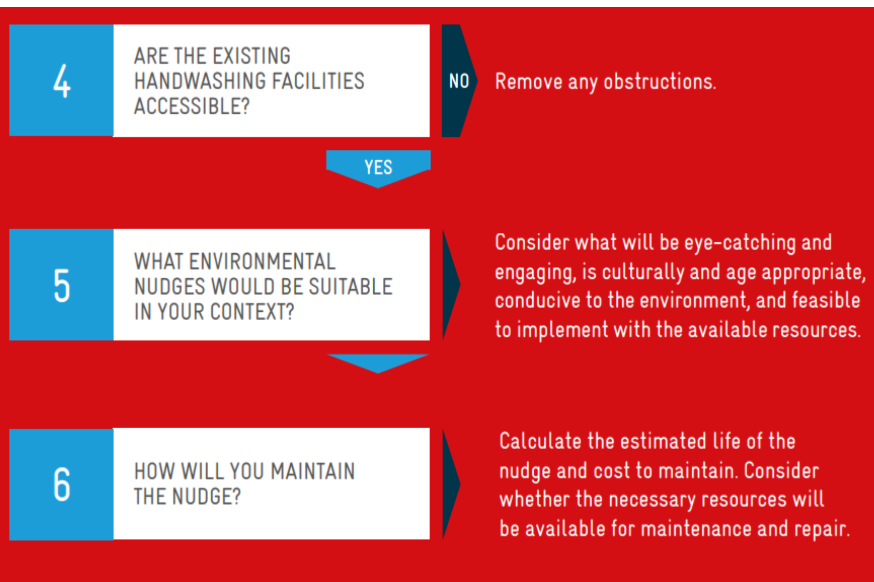
- Consider the costs of installing and maintaining the nudge and whether these are affordable.
- Consider if the materials required are available locally.
  For example: If mirrors are not widely available and affordable in this context then this is not a good option.

IS THE ENVIRONMENT CONDUCIVE TO THE NUDGE OR CUE?

- **For example:** If the ground surrounding the toilet and handwashing facility is grass then painting footprints on the floor will not be viable.
- Also consider if there is enough space available to install the nudge.

Nudges will effectively alter placement, presentation, and properties of handwashing with soap. This means that careful consideration must be given to where handwashing facilities are located in the schools, the design of these facilities, how students interact with these facilities, and how they are complemented by simple and clear messages.

FOR SCHOOLS TO DETERMINE IF IMPLEMENTING
A NUDGE-BASED APPROACH IS APPROPRIATE AND
HOW TO DESIGN AN APPROPRIATE NUDGE-BASED INTERVENTION
CONSIDER THE FOLLOWING QUESTIONS IN SUCCESSION:
1
IS THERE ACCESS TO A REGULAR SUPPLY OF WATER?
NO
Ensure this is in place before considering adding nudges.
YES
2
IS THERE SOAP AVAILABLE AND SYSTEMS IN PLACE TO MAINTAIN THE SUPPLY?
NO
Ensure this is in place before considering adding nudges.
YES
3
ARE HANDWASHING FACILITIES AVAILABLE (EXAMPLES INCLUDE SINKS, TIPPY TAPS, ETC)?
NO
Ensure handwashing facilities are available. Consider placement and design of facilities.
YES


4
ARE THE EXISTING HANDWASHING FACILITIES ACCESSIBLE?
NO
Remove any obstructions.
YES
5
WHAT ENVIRONMENTAL NUDGES WOULD BE SUITABLE IN YOUR CONTEXT?
Consider what will be eye-catching and engaging, is culturally and age appropriate, conducive to the environment, and feasible to implement with the available resources.
6
HOW WILL YOU MAINTAIN THE NUDGE?
Calculate the estimated life of the nudge and cost to maintain. Consider whether the necessary resources will be available for maintenance and repair.

Resources

Catalog of behavior change techniques (BCTs) ESI 3.1 to A practical guide using the RANAS approach Version 1.0, August 2016 - https://76ddba31-385f-4f1b-a8fc-00db654c6cbf.filesusr.com/ugd/accbe3_2540cf86e0e84a779156dd4a58aaab14.pdf

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Wilbur J, Bright T, Mahon T, Hameed S, Torondel B, Mulwafu W, Kuper H, Polack S. Developing Behaviour Change Interventions for Improving Access to Health and Hygiene for People with Disabilities: Two Case Studies from Nepal and Malawi. Int J Environ Res Public Health. 2018 Dec 5;15(12):2746. doi: 10.3390/ijerph15122746. PMID: 30563096; PMCID: PMC6313611.

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