Title of abstract: **Solutions to cultural challenges in scaling up dry sanitation in Nepal** Author's name and affiliations: Sanna-Leena Rautanen, Chief Technical Adviser* Contact name: (above) Postal address: c/o RWSSP-WN II, Pokhara, Kaski District, Nepal E-mail address: sannaleenar @ gmail.com Skype: sannaleenar

The Government of Nepal has the vision of universal sanitation coverage for its citizens by 2017. This entails that open defecation should end in all 75 districts. The Rural Water Supply and Sanitation Project in Western Nepal Phase II has contributed to the sanitation movement from the beginning. Out of its 14 working districts, eight have declared the complete district as Open Defecation Free (ODF). Out of 713 Village Development Committees (lowest tier of local government) in our working districts, 490 have declared themselves ODF by December, 2014. This success builds on the people's own drive to construct, use and maintain their toilets. The effort cannot be supply (subsidy) driven given the sheer amount of missing toilets. For this purpose, the sector stakeholders in Nepal have widely adapted various behaviour change communication and triggering tools. There are still millions of people defecating in the open, regardless of the relative success.

The purpose of the study was to explore how the existing behaviour change communications strategies could be used as a solution to address challenges linked to dry sanitation in Nepal. This was done by seeking insights and do-able recommendations on how to improve the present strategies, practices and tools that do not seem to encourage dry sanitation solutions at the moment. The choices continue to be water-flushed two-pit or one-pit solutions. This study also explores the work done with sanitation marketing and post-ODF support.

This study used the Water and Sanitation Program's (WSP) theory of sanitation behaviour as the external frame of reference. According to WSP, programs wishing to bring about large scale and sustainable sanitation behaviour change must seek to bring about the following:

- **Demand for improved sanitation**: Do those who do not use improved sanitation have the opportunity to change? Are people aware of a dry sanitation options, and have opportunities to change accordingly? Do people have the *ability* to change? Do those who do not use improved sanitation have the *motivation* to change, what would motivate them to choose dry sanitation? What are some of the incentives that make dry sanitation an attractive choice?
- An *effective sanitation supply chain*: Are latrine building service providers and suppliers able to provide affordable and desirable solutions? How aware is the market on options such as dry toilets and safe use of urine in agriculture? How complex does the existing sanitation supply chain make the sanitation shopping process, especially for dry sanitation options? Do implementers have the opportunity, ability, and motivation to carry out their work?
- *An enabling environment for sanitation programming*: Do decision makers understand the program and prioritize dry sanitation? How do policy-level choices influence the technology choice?

The study was guided by the above questions. For the purposes of this study, the primary behaviour of interest was simply *Ending Open Defecation*. This means that people should want to construct improved (dry) latrines at home by themselves. This study explored the behaviour change determinants and barriers as identified during the field work done in those communities where some households were using dry sanitation solutions, or at least urine diverting options, even if the livelihoods aspect was not the primary focus of the study.

BEHAVIOUR CHANGE COMMUNICATIONS, NEPAL, DRY SANITATION MARKETING

1. INTRODUCTION: THE STUDY CONTEXT

The Government of Nepal has the vision of universal sanitation coverage for its citizens by 2017. This entails that open defecation should end in all 75 districts. The overall objective, which the Rural Water Supply and Sanitation Project in Western Nepal (RWSSP-WN) supports the Government of Nepal (GoN) to achieve, is improved health and fulfilment of the equal right to water and sanitation for the inhabitants of the Project area. The target set for sanitation is to end open defecation across all working districts. This is in line with the human rights based approach that calls for inclusion of all: all have rights and also responsibilities with regards to sanitation. The RWSSP-WN Phase II Project Document estimated that about 975,000 people in the three Terai districts will benefit from the open defecation free (ODF) status in their respective Village Development Committees (VDCs) and districts.

RWSSP-WN has contributed to the sanitation movement in Nepal from the beginning. Out of its 14 working districts, eight have declared the complete district as Open Defecation Free (ODF). Out of 713 Village Development Committees (lowest tier of local government) in our working districts, 490 have declared themselves ODF by December, 2014. This success builds on the people's own drive to construct, use and maintain their toilets. The effort cannot be supply (subsidy) driven given the sheer amount of missing toilets. For this purpose, the sector stakeholders in Nepal have widely adapted various behaviour change communication and triggering tools. The challenge in the RWSSP-WN working area is to reach out to all those about one million people who still defecate in the open, regardless of the relative progress made over the past years.

RWSSP-WN's sanitation and hygiene component covers the whole rural population in the Project area. The challenge is two-fold: first to trigger people to build the toilet, and to ensure that they are so triggered that they will also continue to use and maintain the toilet. The achievements with regards to sanitation are not to be taken for granted. Phase II is also the phasing-out phase of RWSSP-WN and Finland's bilateral presence in the region. For sanitation this means that we need to pay more attention to such as private sector and local media, both in terms of continued sanitation promotion and in terms of sustaining the behaviour. It also means that the VDC-wide WASH Coordination Committees (V-WASH-CCs) and District-wide WASH Coordination Committees (D-WASH-CCs) need to internalize a number of functions. Their Terms of Reference are given in the Nepal National Sanitation and Hygiene Master Plan. (Government of Nepal, 2011).

The above sets the frame of reference for this study. We need to think beyond the project as well as out-of-box when promoting specific technical options while the approach is essentially about behaviour change and there are no hardware subsidies. What triggers anyone to *want* to build, use and maintain something that is not amongst the immediate felt priorities?

2. PURPOSE, OBJECTIVES, SCOPE AND METHODOLOGY

The purpose of the study was to explore how the existing behaviour change communications strategies could be used as a solution to address challenges linked to dry sanitation in Nepal. This was done by seeking insights and do-able recommendations on how to improve the present strategies, practices and tools that do not seem to encourage dry sanitation solutions at the moment. There are also locations where these tools are not encouraging *any* type of sanitation solutions. Those who do choose to act, tend to choose the water-flushed two-pit or one-pit latrines that are widely used in the South Asia region.

Behaviour change communications are continuous work in progress in RWSSP-WN. This study used the Water and Sanitation Program's (WSP) theory of sanitation behaviour as the external frame of reference. (Devine, 2009). The study builds on the review and assessment of RWSSP-WN's present

approaches to BCC made by Gerwel-Jensen & Poudel in December 2014. (Gerwel-Jensen & Poudel, 2015). The questions below stem from their study, here being directed to address dry sanitation. The conclusions and recommendations are inspired by the transtheoretical model by Prochaska & DiClemente (Transtheoretical model, web-site accessed 12.04.2015).

According to WSP, programs wishing to bring about large scale and sustainable sanitation behaviour change must seek to bring about the following, these being the research questions for this study:

- **Demand for improved sanitation**: Do those who do not use improved sanitation have the opportunity to change? Are people aware of a dry sanitation options, and have opportunities to change accordingly? Do people have the *ability* to change? Do those who do not use improved sanitation have the *motivation* to change, what would motivate them to choose dry sanitation? What are some of the incentives that make dry sanitation an attractive choice?
- An *effective sanitation supply chain*: Are latrine building service providers and suppliers able to provide affordable and desirable solutions? How aware is the market on options such as dry toilets and safe use of urine in agriculture? How complex does the existing sanitation supply chain make the sanitation shopping process, especially for dry sanitation options? Do implementers have the opportunity, ability, and motivation to carry out their work?
- *An enabling environment for sanitation programming*: Do decision makers understand the program and prioritize dry sanitation? How do policy-level choices influence the technology choice?

The study was guided by the above questions. For the purposes of this study, the primary behaviour of interest was simply *Ending Open Defecation*. This means that people should want to construct improved (dry) latrines at home by themselves. This study explored the behaviour change determinants and barriers as identified during the field work done in those communities where some households were using dry sanitation solutions, or at least urine diverting options, even if the livelihoods aspect was not the primary focus of the study. This study also explores sanitation marketing and post-ODF support services as solutions to address challenges in scaling up dry sanitation.

3. FINDINGS & DISCUSSION

3.1 Demand for improved sanitation

RWSSP-WN's approaches the call for 'ODF' through community-led sanitation behaviour change. In this approach the first target is to trigger sanitation behaviour change at the household level. The aim is to stop open defecation, hence, *the target is behaviour, not hardware*. Construction and consistent use of any type of toilet is acceptable at this stage. Triggering behaviour is about triggering demand for sanitation – demand that stems from the individual people themselves.

The aim truly is that there is no open defecation observed anywhere – this in turn means that all household members also <u>use</u> the toilet. This is not to be taken for granted either – there are many cultural and social taboos that may prevent certain people from using the toilet even if they wanted to. For instance, in some communities the daughter-in-law cannot use the same toilet than the father-in-law. Menstruating women may be forbidden to 'pollute' the toilets, hence, they should not use them either. Some feel that small children just do not *need* to use the toilet, it is completely acceptable that they defecate where they like. Some people cannot bear the thought of always defecating in the same place; latrine is simply disgusting from that point of view. Also accessibility may be a challenge to many differently-able persons – in some communities it is not desirable to have the toilet anywhere near the house. Or the available land is simply limited, or non-existent. These people who cannot use the latrine are in addition to those people who just will not use the toilet, no matter what, for any given reason!

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Behaviour change is achieved via 'trigger-based' approach. This is applied at both community and individual levels. Here the challenge is the sheer number and diversity of people to be reached: how many 'triggerers' need to be trained and effectively mobilized to trigger one million people? This is one million people with a range of reasons why they are not using the toilet already, some of which have any range of reasons that they will not use even if they could. Triggering is different from the traditional 'education' approach that was based on lecturing about health issues and related benefits. Knowledge alone does not 'trigger'. Behaviour change triggering aims to trigger at another level, not only intellectual. It aims to trigger feelings: feelings of shame and feelings of joy and convenience, feelings of 'something nice', feelings of prestige, feelings of safety and dignity, even feelings of beauty. Sometimes also negative feelings are triggered, making people feel threatened, ashamed, and guilty, 'not a good person'.

Behaviour change triggering tools applied in Nepal are used for a wide range of improved sanitation and hygiene practices among rural populations. The behaviour being triggered need to be clearly defined; it could be such as latrine construction, hand washing with soap, and construction of improved cooking stoves to decrease indoor air pollution. There are several specific triggering tools. In addition RWSSP-WN has introduced the Small Doable Actions approach to bring about the above mentioned targeted changes in behaviour. Attention remains at the household level and increasingly, on physical changes that should reflect the changes in behaviour. The Small Doable Actions approach seeks to bring about behaviour change via the following process:

- 1. Identify feasible incremental steps that move people from the current hygiene and sanitation practice toward the ideal practice
- 2. Identify existing hygiene and sanitation good practices to be reinforced and congratulate the householder
- 3. Identify practices to be improved and negotiate the options
- 4. Visit families to find out how families are able to practice the new behaviour

The approach relies on the fact that there are natural leaders, lead mothers, teachers, health workers and volunteers & social activists who are in the position to lead changes in their respective communities. They are trained on how to implement the Small Doable Actions, and are expected to proceed to visit each household. The intended final outcome is total sanitation and hygiene behaviour change. The attention remains in behaviours that apply to all – not in individual technology choices. Figure 1 shows the cyclic process that these triggering activities are intended to lead into, here described as a cyclic process, something where the successful positive change triggers the next cycle of change, moving first towards communities declaring ODF and then total sanitation behaviour change.

Triggering activities are supplemented by behaviour change communication (BCC) via other channels, including street drama, rallies, and radio broadcasts. At this stage still, any sanitation option is valid, the target being in open defecation behaviour. In practice many sanitation and hygiene related messages tend to get included, and as such there would be no harm done if specific technology options were included where relevant. Declaring locations as Open Defecation Free (ODF) one by one after verification that they truly are ODF, marks the achievement and is a triggering tool in itself. At this stage any latrine is acceptable as far as there is no open defecation. While the attention to one behaviour only (no open defecation) has its merits, we need to be aware that one behaviour probably needs supportive other behaviours and the enabling external environment to truly happen. Furthermore, if the behaviours are not rooted or never were there, the location may not be ODF, or will not remain ODF, after all.

The second stage of behaviour change starts after ODF has been declared. This is called "*post-ODF*" phase. At this stage the aim is to proceed towards *total sanitation and hygiene behaviour change*. This

is critical for the sustainability, and could potentially give another opportunity to advocate specific sanitation solutions. This phase focuses on promoting hygiene and sanitation behaviours, including:

- Hand washing with soap or cleaning agent at four critical times
- Safe disposal of faeces (also of small children and babies)
- Safe handling and treatment of household drinking water
- Regular nail cutting, bathing, cloth washing, daily combing, proper tooth brushing
- Proper waste management inside and outside of the home

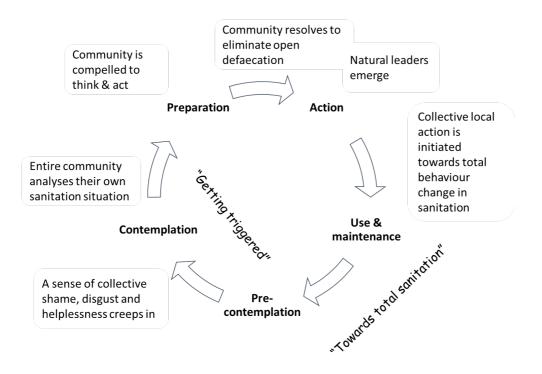


Figure 1. Application of the Community-led Total Sanitation approach

The latrine hardware choices are left with the individual households, this being influenced by both demand and supply-side realities. This is where we have the opportunity and where we also loose the opportunity if we would like to promote dry sanitation at scale. We need to ensure that those who do not use improved sanitation have the opportunity to change, that there is demand for change and people can act accordingly.

3.2 An effective sanitation supply chain

Field observation of the latrine building service providers and suppliers suggests that the materials are not available for the dry toilet if the pan set is what people expect it to be for any type of toilet – i.e. looks similar to the water-seal latrines. The urine diverting pan sets are hard to find, even for those who make an effort to find them. Their distribution is limited to pilot locations. The private sector is not able to provide affordable and desirable solutions – the overall observation is that they are hardly able to provide any type of choice even within the water seal pan sets. This is most evident in the subsidy-driven approaches where the subsidized pan sets were the same for all with no choice at all.

In most places the suppliers are not aware on other options such as dry toilets, and even less likely to be able to provide such technical guidance as "safe use of urine in agriculture" for instance. There appears to be a range of misunderstandings with regards to ecological sanitation, including dry sanitation, even amongst those who are trained WASH sector specialists. The advice given in the communities for instance on how to operate and maintain these 'non-conventional' options is simply not correct. For instance, suggesting to flood irrigate paddy with large amounts of urine led into a seriously negative experience within the farmers group who initially did have a positive attitude towards using urine in their fields.

The existing sanitation supply chain does not necessarily reach the communities. The chain is not particularly complex but rather, it is not 'long' enough. The present supply chain does not bring dry sanitation options down to the community level where toilets are now heavily associated with the pan sets. The implementers do not truly have an opportunity, ability, and motivation to carry out their work. The implementers, including our staff that trains the behaviour change triggerers, these triggerers themselves and community-level opinion leaders all need to be convinced first. The field observations suggest that we do not know enough of what motivates them, and how to motivate them to motivate. This is closely linked to triggering process: when change is triggered, motivation to act is also triggered. The challenge is that they do need to learn more than what they need to learn when they are promoting any latrine options. For instance safety concerns are always real if the instructions given are not correct. Misleading or wrong information can quickly have an anti-trigger impact.

3.3 Enabling Environment for Dry Toilets

Policy-level choices do influence the technology choice, and will continue to have an impact also later on – the path dependency is easy to see. Decision makers and opinion leaders, including numerous WASH sector actors themselves, do see the water-seal latrines as the only real and permanent, ultimate, choice. This does not create an enabling environment from their part.

What we do not fully understand is the multidimensional context of what constitutes the "enabling environment" for dry sanitation. We tend to deal with the different levels or layers of enabling environment one at the time, and target the activities accordingly. Yet, the system is obviously complex: vertically we need to understand the enabling environment at individual, at household, at community, at local government, at district, at regional and at country level; and horizontally we need to understand it across the various sectors. While the WASH sector is fragmented as it is with regards to policies and enabling environment (water, health, education, infrastructure, land use planning, drainage, housing code), adding dry toilet into it adds more fragments to consider (agriculture, food security, waste management). Is the enabling environment evident in all these sectors for dry toilets? To what extent the other sectors are relevant in terms of being a strong barrier to change and such, something that we should be able to address at the policy level?

3.4 From pre-triggering to triggering to post-triggering

This chapter takes the transtheoretical model by Prochaska & DiClemente as the point of entry for elaborating the above findings within 'one picture' (Transtheoretical model, website accessed 12.04.2015). This chapter also utilizes the recommendations made in the review and assessment of RWSSP-WN's present approaches to BCC (Gerwel-Jensen & Poudel, 2015). The review focused on sanitation BCC in Tarai only, looking at how to trigger people to build, use and maintain any latrine. They suggested that while the behaviour change triggering tools themselves do seem to work, more attention is needed before and after the triggering events. Figure 2 is adapted from the figures presented by Gerwel-Jensen & Poudel (2015), originally adapted from Prochaska & DiClemente (Transtheoretical model, website accessed 12.04.2015). For this study, I have added the dry toilet relevant items into the overall behaviour change process, showing that the picture gets increasingly more complex when more than one behaviour to change (open defecation) is added. These can also be considered positive hitherto under-utilized opportunities. In the case of dry toilet, the use &

maintenance aspects will need more serious and multi-sectoral attention that in the other options, should we aim to promote such as kitchen gardening and other productive end-uses.

Even if we do wish to promote a specific technical option that makes sense from many points of view, the ultimate aim in a country with large population defecating open, is *to stop open defecation*. Hence, in Figure 2, the leading theme is ending open defecation. At first stage the behaviour to change is not the use of water seal latrines, but rather, use of *no latrines*. The next stage is where this behaviour is changing but as individuals and clusters of households move ahead at different pace, not all have permanently changed and those who have, may not have done so permanently. The third stage is where the behaviour is sustained, latrines are long-lasting and there is no open defecation. This is the policy choice foundation needed in such a working context as RWSSP-WN's. As long as we have one million people defecating in open, we cannot focus on changing the existing toilets but rather, we need to focus on those who have no toilets and on those who have toilets but are not using and/or maintaining them.

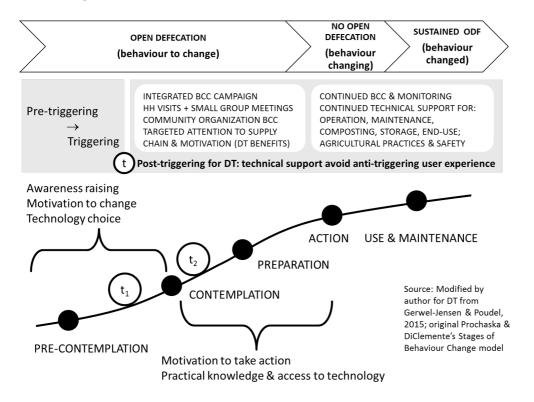


Figure 2. Behaviour change for ending open defecation with dry toilets

The pre-triggering stage takes place in the localities where we assume that people are at '*pre-contemplation*' stage, i.e. that they are not ready for change, or at '*contemplation*' stage, i.e. they are getting ready to change but have not done so yet. Triggering those at the contemplation stage first can have a triggering effect on those that are on the pre-contemplation stage. Hence, the triggerers need to know at what stage the target community and individuals within it are. In addition, since triggering event is a unique event that is not likely to work twice, it is an *opportunity* that is not to be lost simply because the triggerers did not know who they were triggering.

The triggerers need to know about barriers to change within each unique community before the triggering event. The most serious barriers need to be addressed first, before attempting to organize any triggering events. Such as expecting to get a subsidy for a toilet construction can prevent otherwise 'triggered' households or individuals within from building their toilet at their own cost as

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long as they think that there could be a subsidy (and if not from RWSSP-WN, then from somebody else!). This is where the individual and community level gets linked to enabling environment vertically. At this stage barriers to choose specific sanitation options, such as dry toilet, can easily be included together with a more general socio-cultural questions that seek barriers preventing people from constructing any type of latrine. Yet, this analysis must not be over-done to extent that it is not done at all or it is done haphazardly, or it causes unnecessary delays considering that here the focus is still in one behaviour only, not in marketing any specific technology options.

The triggering stage aims is to trigger people to preparation stage (ready for action) and then move on to action stage. In the figure 1 the t_1 refers to a triggering event that is organized for the target group that is in the pre-contemplation stage. Similarly, if the pre-triggering assessment is properly done, t_2 refers to the triggering event that is organized for a target group that is at the contemplation stage. While t_1 will need to focus on getting the target group interested in any type of toilets, the t_2 event could add more technical issues into the event, offering also dry toilets as a solution. This is also the stage where the Small Do-able Actions could include dry toilet or related specific actions, such as collecting urine for the gardening purpose. At triggering stage the supply-side issues need to be solved already as after triggering, those who want to take action, should be able to do so. Again, an opportunity to add dry sanitation into supply side.

The post-triggering stage addresses the *action* and *maintenance stages* in the transtheoretical model. In between these ODF is declared but the action is not over. This is where it will become evident whether the enabling environment is supportive and responsive, and barriers to change are truly cleared to extent possible – that people who are triggered to change, can change, and that those who are triggered and changed, can remain so and get the support needed. At triggering stage the demand gets created, and at post-triggering stage the demand created should be responded to. Here the option for dry toilets is in the supply side: there is a real need to have more options easily available. The post-triggering stage continues after the ODF has been declared as the declaration itself is not the end of it. The sustained behaviour needs to be followed up, hence, monitoring and post-ODF related BCC must be continued. The aim is to move towards Total Behaviour Change status which is obviously not possible if ODF status is not true in the first place. If dry toilets are included, these BCC effort need to do targeted marketing and explore ways of communicating technical options and such as agriculture and safety related information.

4. CONLCUSIONS AND RECOMMENDATIONS

Sanitation sector in Nepal is vibrant and actively seeking ways to improve the existing approaches and practices. There are numerous studies and pilots, many success stories and lessons learned, and concerns raised on sustainability of the present achievements. Within this movement, behaviour change communications (BCC) is a continuous work in progress for RWSSP-WN. This study was seeking solutions to cultural challenges in scaling up dry sanitation in Nepal. It used the WSP's theory of sanitation behaviour as the external frame of reference, building dry toilet relevant dimensions on the findings from a recent BCC review made in RWSSP-WN in 2014.

Successful BCC needs to understand the culture of the target group. RWSSP-WN's present BCC and related triggering processes, including pre- and post-triggering stages that are now being developed, can offer several solutions to address cultural challenges in scaling up dry sanitation in Nepal. We still need to understand better what truly motivates, what the 'dream toilet' looks like in different places? Can it be dry? For dry sanitation option there are at least the following types motivations to consider:

- What motivates people who simply do not have any kind of latrine?
- What motivates people who have cultural taboos limiting the use of (any) toilet?
- What motivates people who have serious issues with resources (ultra-poor) and who also tend to be the most hard-hit measured by any kind of development indicator (illiterate, landless,

• What motivates people who are already accustomed to use a Sulabh-type of improved toilet that are the usual latrine choice anywhere in Nepal (i.e. people who have not seen other options)

We also need to be careful that dry sanitation will not get associated with the negative triggering i.e. that dry sanitation is something to be ashamed of, or is somehow the poor option, for instance. Many triggering tools work through 'negative', but for the dry sanitation 'positive' should be the leading theme: that dry sanitation *can be* convenient, desirable, modern, beautiful, practical, possible option for all. Are we ourselves convinced on this? Unfortunately many sector colleagues are not. Our role is to help target groups understand the issues and options, trigger and motivate to look for other options than the obvious one, and provide enough support to overcome their constraints to change. This call for motivate-to-motivate applies also to our unconvinced sector colleagues.

BCC is most efficient when it is focused on limited number of behaviours, preferably only one behaviour at the time. Therefore, we need to define the behaviour to target before we can understand it and try to influence it. The challenge with dry sanitation is about the definition of which behaviour to change: there are more than one behaviour if we define it as "stopping open defecation by constructing, using and maintaining dry toilet". Yet, this definition is do-able even if it is clearly more prescriptive than "stopping open defecation" without dictating how. Positive reinforcement for dry sanitation could include such as truly 'dream toilet' cases where the experience is positive with the right tools and right practices, with good results in the home gardens, responding to issues arising from the pre-triggering barrier analysis. But how to do this *at scale*? At the moment dry sanitation appears nowhere at scale, it remains as a pilot and more to it, heavily subsidized pilot.

The present behaviour change triggering and BCC in Nepal focus on creating demand, but the supplyside lacks behind. Sanitation marketing is one of the approaches that can encourage specific sanitation options *at scale*. This should not be done as a 'pilot' or be otherwise heavily subsidized project-driven exercise but rather, something that stems from the present hardware suppliers' practices and networks. We need to encourage those private sector hardware suppliers who can supply *also* dry sanitation 'dream toilet' related products. These should be something that people dream about and can pay for, preferably backed up with the right tools for the maintenance and some technical advice. There is a need to learn more about how sanitation marketing and closely related social marketing could be more meaningfully linked into BCC for dry sanitation.

Sanitation and hygiene are very private issues and consequently what constitutes as a 'dream toilet' can be hugely varied. It can also be a shared dream, something equally desirable to all. This paper recommends to develop *adaptive change management* approach that utilizes BCC, pays attention to human factor and aims to address barriers also within the enabling environment, both horizontally and vertically. Socio-cultural practices, beliefs and localized taboos, in addition to economic factors and basic priorities, do guide sanitation choices. The challenge is how to facilitate self-realization and coach individual households when there are about one million people that should immediately stop open defecation? We cannot focus on one aspect only (technology choice, for instance), we need to see it in its broader context and at scale if and when the target is to reach out to one million people who defecate in open every day in our working districts

Adaptive change management approach considers the behaviour change at individual and collective levels, encouraging these individual units to design integrated systems based on their own understanding of what is desirable and possible. Here RWSSP-WN needs to be aware of the interdependence between technologies, economic and socio-cultural factors, and formal and informal institutions. We as a project need to increase the ability of the whole system, vertically including both district, village and cluster levels, to learn and change, and to respond to change. This recommendation applies also to our water supply programmes. The communities should not be simply reacting to

undesirable impacts of change or impacts of *no* change, but take a pro-active role of their own. Learning capability together with the willingness to look for options and try new or different options are crucial. Dry sanitation is not only about technology choice, albeit this is the most tangible aspect of it that makes it different from the not-dry options for a general public.

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AUTOBIOGRAPHY



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