

CIVIL SOCIETY
WATER, SANITATION
AND HYGIENE FUND



Hygiene Behaviour Change in the Civil Society WASH Fund



SYNTHESIS REPORT FROM THE FUND LEARNING AND REFLECTION EVENT

1-4 AUG 2017 | BRISBANE, AUSTRALIA

The Civil Society WASH Fund is supported by the Australian Government and managed by Palladium

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- Australian Red Cross
- Habitat for Humanity
- iDE (International Development Enterprises)
- International Rescue Committee
- Live and Learn Environmental Education
- Plan International
- Save the Children
- SNV (Netherlands Development Organisation)
- Thrive Networks
- United Purpose (formerly Concern Universal)
- WaterAid
- Welthungerhilfe
- World Vision

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Editors: Mark Ellery (FLARE WASH Facilitator) and Bronwyn Powell (Fund Knowledge and Learning Manager)

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Cover photo: A Hygiene Motivator from WaterAid partner NTF trains hygiene members of village Water and Sanitation Committees in Liquica, Timor-Leste. Photo credit: WaterAid/Tom Greenwood

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Contents

	Acronyms & abbreviations	iv
	Executive Summary	1
	Background	2
	Introduction	3
1	Chapter 1: Significance of hygiene behaviour	5
	1.1 Chronic implications of poor hygiene	5
	1.2 Acute implications of poor hygiene	6
	1.3 Acute and chronic implications of poor hygiene	7
2	Chapter 2: Understanding hygiene behaviours	9
	2.1 FOAM Framework	9
	2.2 Behaviour Centred Design	10
	2.3 Human Centred Design	11
3	Chapter 3: Changing hygiene behaviours	12
	3.1 Community Led Total Sanitation	12
	3.2 PHAST and CHAST	13
	3.3 Hygiene Behaviour Change Communications	14
	3.4 Aspirational Marketing	14
	3.5 Healthy Islands Concept	15
4	Chapter 4: Innovating, measuring and sustaining hygiene behaviour change	16
	4.1 Evo-Eco in Bhutan	16
	4.2 Nudges	16
	4.3 Sanctions and incentives	17
	Future opportunities	18



Acronyms & abbreviations

ARC	Australian Red Cross
BCC	Behaviour Change Communication
BDRCS	Bangladesh Red Crescent Society
CLTS	Community Led Total Sanitation
CHAST	Children Hygiene and Sanitation Training
CSO	Civil Society Organisation
CS WASH	Civil Society Water, Sanitation and Hygiene Fund
DFAT	Department of Foreign Affairs and Trade
DHS	Demographic Household Survey
EED	Environmental Enteric Dysfunction
FOAM	Focus, Opportunity, Ability, Motivation
FLARE	Fund Learning and Reflection Event
FMF	Fund Management Facility
HWWS	Handwashing with soap
iDE	International Development Enterprises
IRC	International Rescue Committee
HfH	Habitat for Humanity
K&L	Knowledge and Learning
L&L	Live and Learn Environmental Education
LSHTM	London School of Hygiene and Tropical Medicine
ODF	Open Defecation Free
PHAST	Participatory Hygiene and Sanitation Transformation
PNG	Papua New Guinea
SaniFOAM	Sanitation Focus, Opportunity, Ability, Motivation
SCA	Save the Children Australia
SNV	Netherlands Development Organisation
STBM	Community-based Total Sanitation / Sanitiasi Total Berbasis Masyarakat
USAID	United States Agency for International Development
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
WV	World Vision

Executive Summary

Recognising the importance of good hygiene in safeguarding the health impacts of improved access to water and sanitation services, hygiene promotion was a requirement of Civil Society Organisations (CSOs) supported by the [Civil Society Water, Sanitation and Hygiene Fund](#) (CS WASH, ‘the Fund’). Linking to the Fund’s broader Theory of Change to strengthen and support the capacities of local WASH service duty bearers, or ‘change agents’ for more sustained interventions, CSOs were also encouraged to work with change agents to ensure the scale and sustainability of their hygiene behaviour change approaches.¹ Some CSOs independently developed hygiene behaviour change approaches with the aim of it being replicated by change agents. Other CSOs proposed to work with and influence the government policies and processes and the private sector from the start, while others worked to demonstrate how to effectively implement already existing government policies.

Experiences within the Fund have reinforced the difficulties of hygiene behaviour change. One of the approaches used to influence change agents to achieve scale and sustainability was to generate knowledge of and increased understanding of hygiene behaviour change. Across the Fund, CSOs pursued various hygiene

knowledge frameworks on a range of different hygiene behaviours (e.g. disposal of infant faeces, handwashing with soap at critical times, installation and use of sanitary latrines) and identified motivators be they rational (e.g. FOAM and SaniFOAM), emotional (e.g. Evo-Eco), environmental (e.g. nudges) or product (e.g. Human Centred Design) centric.²

Improved knowledge of the motivators of hygiene behaviour has generally been followed by the development and testing of processes and products to effect hygiene behaviour change. While the Fund has contributed to improvements in hygiene behaviour knowledge and practices there is still a need for greater focus on measuring the impact of hygiene behaviour change.

This synthesis report summarises the lessons learnt by implementing CSOs and partners in understanding the determinants of hygiene behaviour and the tools and approaches used to assess and change those behaviours. This Synthesis Report draws on the Hygiene Behaviour Change [e-Discussion](#), [webinar](#) and workshop sessions associated with the [Fund Learning and Reflection Event](#) (FLARE).

The CS WASH [Fund Learning and Reflection Event \(FLARE\)](#) was an integrated learning platform made up of [e-Discussions](#), [a webinar](#) and a face-to-face event for Fund CSOs and their partners. FLARE discussions were structured around priority WASH themes including, but not limited to: gender and social inclusion; hygiene and sanitation behaviour change; and strengthening enabling environments. A synthesis report has been produced for each of these three themes, of which this report is one. All materials (e-discussions, webinars, program and presentations) are hyperlinked in this report and available online: www.cswashfund.org/learning-events/events/fund-learning-and-reflection-event.

1 Civil Society WASH Fund (2016) *Monitoring & Evaluation Note 2: Actor Analysis*

2 See also Civil Society WASH Fund (2016) *Monitoring & Evaluation Note 8: Behaviour Change*



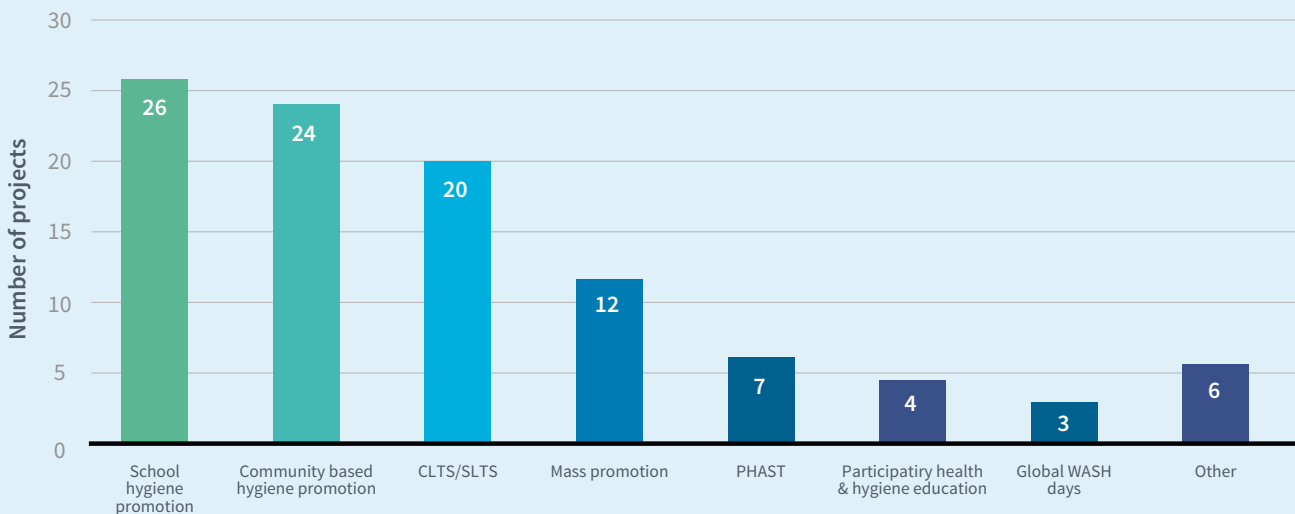
Background

Hygiene behaviour change is a significant aspect of the CS WASH Fund, with each participating CSO required to include a hygiene component in recognition of associated health outcomes. In fact, CSOs deliver more outcomes in the key result area ‘Changes in hygiene practices’ than in any other of the 18 key result areas targeted within the Fund. Closely aligned to this is the significant focus of CSOs on the delivery of outcomes in the key result areas ‘Changes in demand for sanitation facilities’ and ‘Changes in the use of improved facilities’. Sixty four per cent of hygiene deliverables are directly changing hygiene practices amongst project beneficiaries, with the remainder focussed on hardware provision (i.e. handwashing facilities). While some projects target change agents, generally through training-of-trainers and awareness raising, others support the broader enabling environment through policy / strategy development or implementation support.

Although CSO projects adopted a range of approaches, almost all projects target hygiene promotion in schools and most have community-based hygiene promotion activities (i.e. health clubs and community-wide health promotion by village health workers). More than two thirds of the projects use Community Led Total Sanitation (CLTS) and many have invested in development of health promotion materials primarily for the use by health workers or in schools.

The Fund initially targeted the extension of handwashing facilities to an additional 1,583,000 people but this target has been revised upward to over 2,088,000. The Fund has supported research and innovation in hygiene behaviour change.

Figure 1: Number of projects adopting particular sanitation and hygiene behaviour change approaches. There are 29 projects in the Fund so many projects adopted multiple approaches.



Ref: Bailey, B. (2017) FLARE presentation: [Hygiene Behaviour Change Fund-wide Data and Trends](#)

Introduction



Community planning in Northern Bangladesh. Photo credit: Habitat for Humanity

Good personal hygiene is widely recognised as one of the most effective public health interventions³. The reasons for this are that:

- **Good hygiene is highly efficient:** Interventions that occur close to point of potential faecal consumption reduce the risk of recontamination. For instance, the handling of drinking water within the household can easily either contaminate or purify water.
- **Good hygiene is easily verifiable by the individual:** While there are challenges in external verification, individuals will always know the status of their own hygiene practices. For instance, while it is difficult to verify whether someone else washed their hands after using a latrine, everyone will know whether they washed their own hands or not.
- **Good hygiene is generally low cost:** Hygienic water safety and food safety practices may require more time and care but the cost is generally low. For instance, the covering of water jugs or the rinsing of uncooked food in safe water or the washing of hands are extremely low cost.

However, while good hygiene practices by individuals are efficient, verifiable and low-cost in reducing public health risks, changing bad hygiene practices remains a significant public health challenge.

While the knowledge of good hygiene behaviour is generally high and the self-reported compliance with good hygiene behaviours is also generally high, observational evidence shows that this does not always translate to good hygiene behaviours⁴. For instance, it appears that most people know when they should wash their hands with soap and will say that they always do so but observation shows a common tendency to bypass the washing of hands with soap.

While hygiene options are increasingly affordable and available to households, they are often not maintained appropriately. For instance, while households may have handwashing facilities and may have soap, observation shows that the soap is often not available at the handwashing facility⁵.

³ www.betterhealth.vic.gov.au/health/conditionsandtreatments/personal-hygiene

⁴ Vivas A. et. al. (2010) *Knowledge, Attitudes, and Practices (KAP) of Hygiene among School Children in Angolela, Ethiopia*, *Journal of Preventative Medicine and Hygiene*. 2010 Jun; 51(2): 73–79

⁵ VNSO (Vanuatu National Statistics Office) and SPC (Secretariat of the Pacific Community). *Vanuatu Demographic and Health Survey*, 2013



Seen together, this suggests that while most people have been told about the importance of good hygiene behaviour, they generally don't see the difference between good and bad hygiene behaviour in their day-to-day life. As a result, people bypass good hygiene practices and in the absence of obvious negative consequences justify the future gamble against good hygiene practices.

Hygiene promotion has traditionally followed messaging and education approaches based on an assumption that increased knowledge equates to changed behaviours. The failure of such approaches in changing hygiene behaviours has led to a divergence in opinions regarding the effectiveness of health knowledge in changing hygiene behaviour. On one side is the school of thought that health messaging is not sufficient in prompting hygiene behaviour change⁶. This has resulted in a greater focus on other motivators for hygiene behaviour change such as pride, nurture, social affiliation and disgust, and hygiene promotion initiatives are being designed to respond to these incentives. On the other side is the school of thought that raising health knowledge must underpin any effective hygiene behaviour change to reduce the risks of perverse consequences. Within this context of these divergent approaches, and a need for more evidence of successful approaches, the difficulty of hygiene behaviour change is widely recognised.

This report is structured around the following topics:

1. Significance of hygiene behaviour
2. Understanding hygiene behaviours and behavioural determinants
3. Changing hygiene behaviours
4. Innovating, measuring and sustaining hygiene behaviour change

The first of these topics, significance of hygiene behaviour, draws primarily on theory and recent research⁷, while the remaining three topics draw heavily on CSO project experience.



Boy sits on new latrine products in the sanitation marketing yard.
Photo credit: WaterAid/ Jyoti Bhushan

⁶ www.wvi.org/clean-water-sanitation-and-hygiene-wash/wash-hygiene-behaviour-change

⁷ The plenary presentation on hygiene behaviour change was presented by FLARE WASH Facilitator, Mark Ellery.

CHAPTER 1

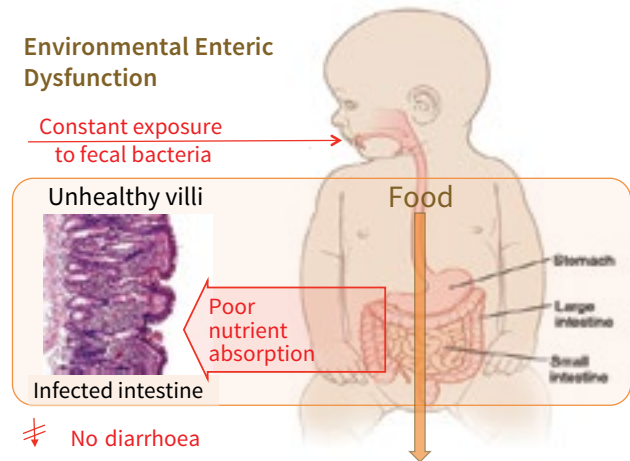
Significance of hygiene behaviour

1.1 Chronic implications of poor hygiene

It is well known that poor sanitation and hygiene can lead to acute symptoms such as diarrhoea and a loss of weight. It is less well known that constant exposure to faecal bacteria can lead to gut infections and stunting of the villi in the lower intestine hampering the ability of the gut to absorb nutrients. This subclinical medical condition known as Environmental Enteric Dysfunction (EED) is not associated with acute symptoms like diarrhoea or the loss of weight but it is associated with chronic undernutrition⁸.

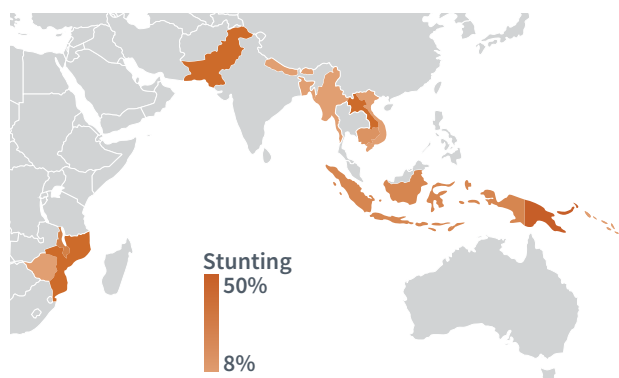
Chronic undernutrition or stunting evidenced as faltering in the growth of the height of children has irreversible effects on the physical and cognitive development of children. Writ large this impedes human development and the broader economic potential of a nation. While stunting has decreased from 33% to 23% globally since 2000, childhood stunting rates have increased in the Pacific and the number of stunted children has risen in Africa⁹. Today, the rates of stunting in the Pacific are the highest in the world and almost half of stunted children live in Asia. Of the 19 CS WASH Fund countries (Figure 3), only Fiji and Sri Lanka have stunting rates less than 20% while East Timor and Papua New Guinea (PNG) have stunting rates around 50%¹⁰.

Figure 2: Long-term implications of faecal ingestion.



Ref: Ellery, M. (2017) FLARE presentation: [SDG 6: Implications for future WASH programming](#)

Figure 3: Incidence of stunting in children under five years old in the 19 CS WASH Fund countries.



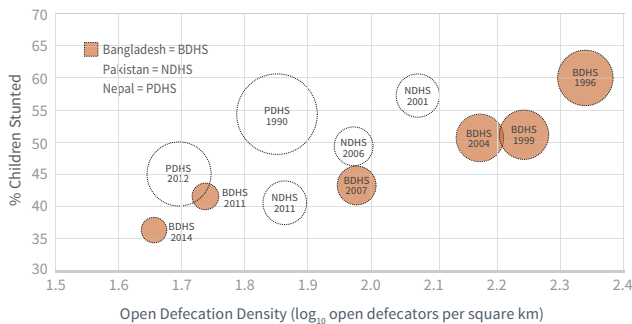
Ref: Ellery, M. (2017) FLARE presentation: [SDG 6: Implications for future WASH programming](#)

8 Mbuya M.N. et al. (2016) *Preventing environmental enteric dysfunction through improved water, sanitation and hygiene: an opportunity for stunting reduction in developing countries*, Maternal and Child Nutrition, 12 (Suppl. 1), pp. 106–120

9 UNICEF, WHO, World Bank Group (2017) *Levels and Trends in Child Malnutrition*

10 UNICEF, WHO, World Bank Group (2017) *Joint Monitoring Program Dataset* (May 2017)

Figure 4: Open defecation density mapped against childhood stunting in Bangladesh, Nepal and Pakistan.



Ref: Data sourced from ICF International, 2015. The DHS Program STAT compiler (funded by USAID).

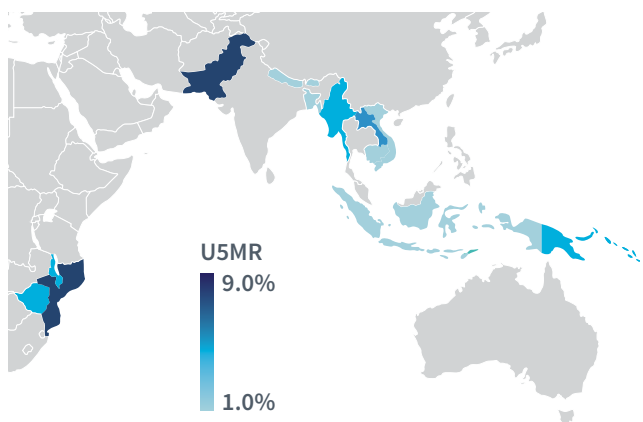
Secondary data analysis has revealed a strong correlation between faecal exposure and chronic undernutrition in children. Demographic Household Survey (DHS) data shows a striking correlation between the reduction in the number of open defecators and the reduction in stunting. Bangladesh provides a clear example showing the number of open defecators (represented by the size of the circles) gets smaller, resulting in a reduction in the density of open defecation (moving to the left) that is positively correlated with a reduction in the percentage of stunting.

1.2 Acute implications of poor hygiene

Since 1990, the under-five mortality rate has halved and the number of deaths due to diarrhoea has more than halved. However, there is little evidence to suggest that this is a result of improved WASH services. This is because the incidence of diarrhoea in <5 children has been static (with only a slight decline from 3.4 to 2.9 episodes/year) while the rates of wasting in <5 children have also been static (with only a slight decline from 9% to 8%)¹¹. This suggests that the reduction in deaths from diarrhoea is primarily a result of the expansion in the use of oral rehydration salts rather than a reduced exposure to faecal bacteria from improved water, sanitation or hygiene.

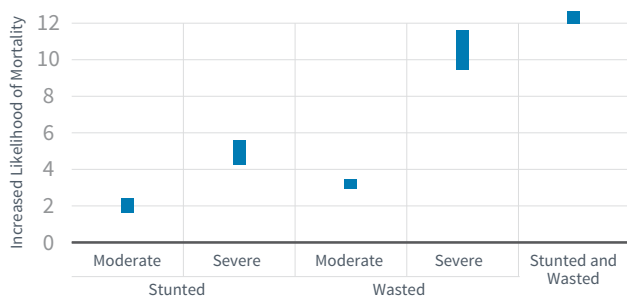
Acute undernutrition characterised by low weight-for-height significantly increases child mortality risks. This places a major public health burden on households, communities and nations. The mortality risks associated with severe acute undernutrition are more than double the risks associated with severe chronic undernutrition according to data from USAID. Today, more than half of all wasted children live in South Asia and almost half of the CS WASH Fund countries (Figure 5) have wasting rates >10%¹² (which is classified by the World Health Organization (WHO) as a public health emergency).

Figure 5: Incidence of mortality in children under five years old in the 19 CS WASH Fund countries.



Ref: Ellery, M. (2017) FLARE presentation: [SDG 6: Implications for future WASH programming](#)

Figure 6: Mortality risk from wasting and/or stunting



Ref: Data sourced from ENN USAID (2014)

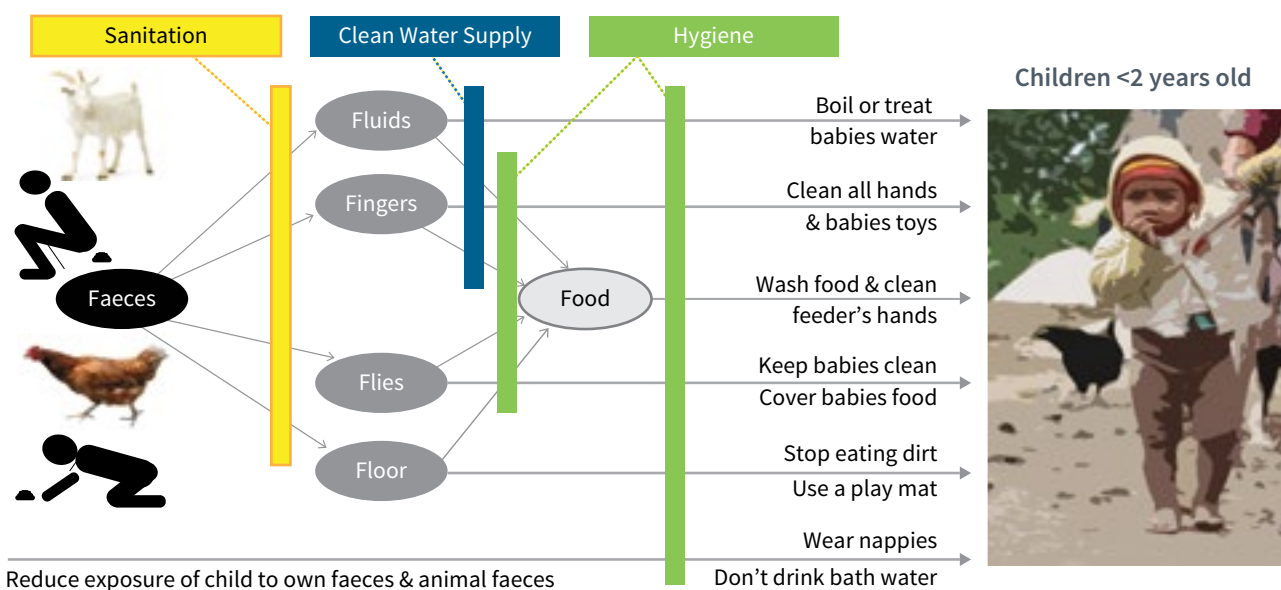
1.3 Acute and chronic implications of poor hygiene

Given the low awareness of the chronic health impacts of poor hygiene and the complex interaction between the acute and chronic impacts of poor hygiene, there is a danger that the absence of acute symptoms may be associated with acceptable levels of exposure to faecal bacteria. However, poor hygiene practices not evidenced by acute symptoms may be masking an increase in chronic symptoms. For example, in some places mothers believe that exposing their children to some faecal contamination helps the child to adapt to their environment because there is a gradual reduction in acute symptoms (i.e. diarrhoea and wasting) where in fact there are increased chronic symptoms (i.e. EED and stunting). This raises the imperative to prioritise hygiene behaviour practices that limit children's exposure to faecal bacteria. Identifying potential risks at the point of faecal ingestion and working backwards to identify hygiene practices that break the faecal-oral cycle (Figure 7) is the most likely means of eliminating all faecal exposure routes for children.



Washing hands with a tippy tap in Zimbabwe.
Photo credit: CS WASH FMF/ David Brazier

Figure 7: Possible pathways for faecal ingestion by babies under two-years old and hygiene barriers that can be put in place to prevent this.



Ref: Ellery, M. (2017) FLARE presentation: [SDG 6: Implications for future WASH programming](#)

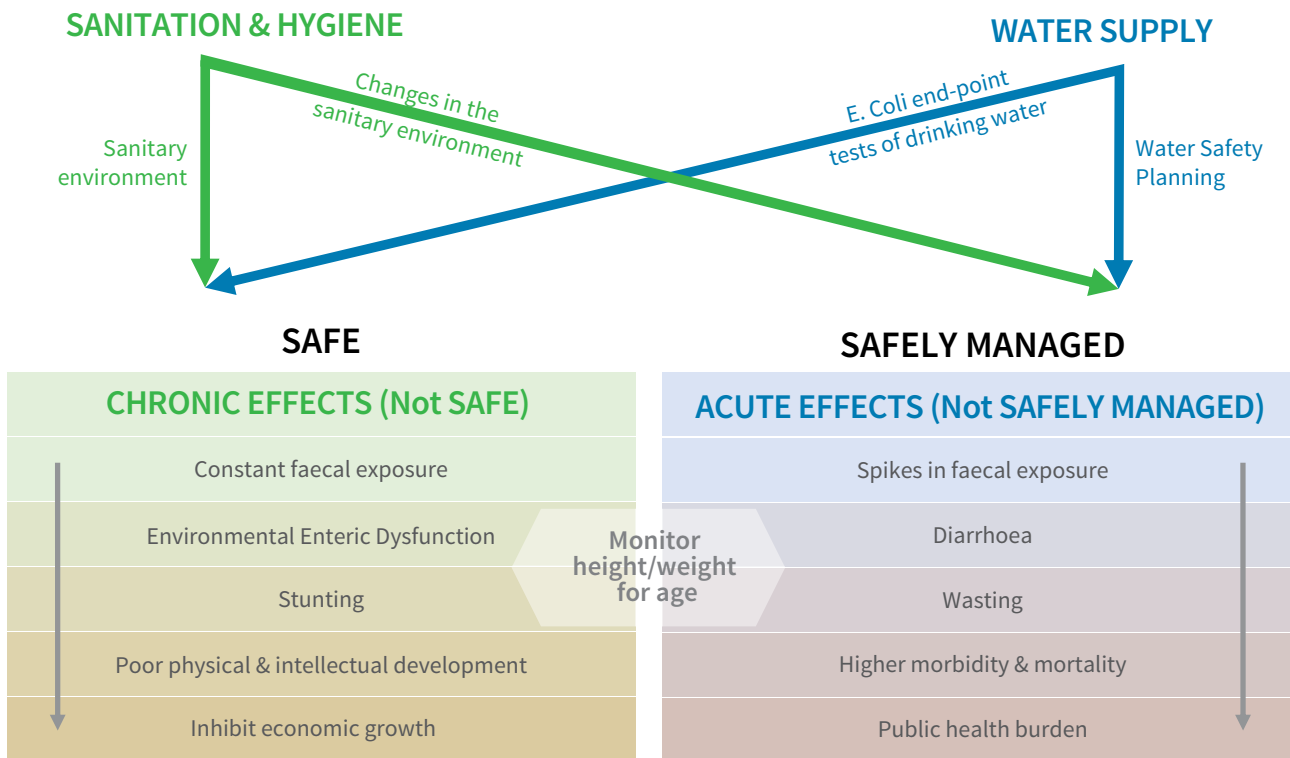


Community participation in water pipe laying in Namphone, Myanmar. Photo credit: Save the Children

In changing hygiene behaviour it is important to recognise that while poor hygiene behaviour can have both acute and chronic symptoms, the causes and the effects are slightly different (see figure 8).

- While chronic symptoms of poor hygiene are associated with constant faecal exposure, acute symptoms will generally be associated with changes (i.e. increases) in faecal exposure.
- While acute symptoms (i.e. diarrhoea and wasting) of poor hygiene are generally obvious, chronic symptoms (i.e. EED and stunting) are generally not obvious.
- While the acute effects of poor hygiene are borne as costs by households and the public health system, chronic effects are borne in the form of the failure of individuals and nations to achieve their intellectual and physical potential.

Figure 8: The long-term implications of chronic versus acute effects of faecal exposure.



Ref: Ellery, M. (2017) FLARE presentation: [SDG 6: Implications for future WASH programming](#)

CHAPTER 2

Understanding hygiene behaviours

While it is recognised that some drivers of behaviour may be universal, there is increasing emphasis on understanding the social, environmental and local determinants of hygiene behaviours. This has led to evolution of various frameworks to understand and influence individual and collective hygiene behaviours. To better focus hygiene activities, many CSOs undertook formative research and baseline studies to assess hygiene behaviours utilising frameworks such as FOAM, SaniFOAM, Evo-Eco and Human Centred Design.

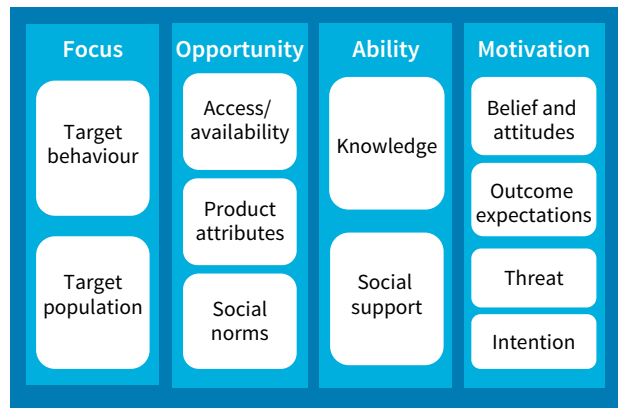
2.1 FOAM Framework

The **FOAM framework** is used to understand local determinants of hygiene behaviours and defining determinants under these headings:¹³

- **Focus:** Who is the target audience and what is the desired behaviour?
- **Opportunity:** Does the individual have the chance to perform the behaviour?
- **Ability:** Is the individual capable of performing the behaviour?
- **Motivation:** Does the individual want to perform the behaviour?

The Netherlands Development Organisation (SNV) gained considerable experience in formative research applying the FOAM and SaniFOAM frameworks. This increased the awareness within the project of the importance of local formative research on understanding hygiene behaviours and behaviour

Figure 9: Foam Framework



Ref: SNV (2016) *Behaviour Change Communication Guidelines*

change practices and the importance of looking beyond barriers of knowledge. This has also led to the realisation that the successful application of behaviour change frameworks requires strong support in the analysis phase to ensure the useful interpretation of the findings of formative research¹⁴.

SaniFOAM refers to the specific application of the FOAM framework to the use of latrine facilities. In the East Sepik in PNG, WaterAid had identified poor infant faeces management as a major hygiene risk. Formative research applying the SaniFOAM was undertaken to understand the focus, opportunity, ability and motivation that sustain existing practices and could potentially be leveraged to improve infant faeces management practices.

This research identified that while the knowledge about good hygiene practices is strong, the disposal of infant faeces in the open is still widely practiced in part due to cultural beliefs that baby faeces is clean.

13 Coombes, Y. and J. Devine (2010) *Introducing FOAM: A Framework to Analyze Handwashing Behaviors to Design Effective Handwashing Programs*. Water and Sanitation Program (World Bank).

14 SNV and IRC (2015) *Behaviour Change Communication for Sanitation and Hygiene*. Asia Regional Learning Event, Sustainable Sanitation and Hygiene for All Program.

Change in the safe management of infant faeces was identified to be:

- Primarily the responsibility of women
- Influenced by nurture, pride, cleanliness and environmental cues
- Best reached through a mix of household and community level communication channels.

Communication materials and mobilisation processes have subsequently been developed and their effectiveness is being piloted before their application in the project areas.

Figure 10: The five safe steps for safe infant faeces management.



Cover of the Infant Faeces Management Behaviour Change Campaign Toolkit (WaterAid PNG, 2017).

2.2 Behaviour Centred Design

SNV Bhutan applied Behaviour Centred Design¹⁵, or Evo-Eco, approach building on the work of the London School of Hygiene and Tropical Medicine (LSHTM). Evo-Eco has evolved from the fields of evolutionary biology and ecological psychology and comprises of three basic components:

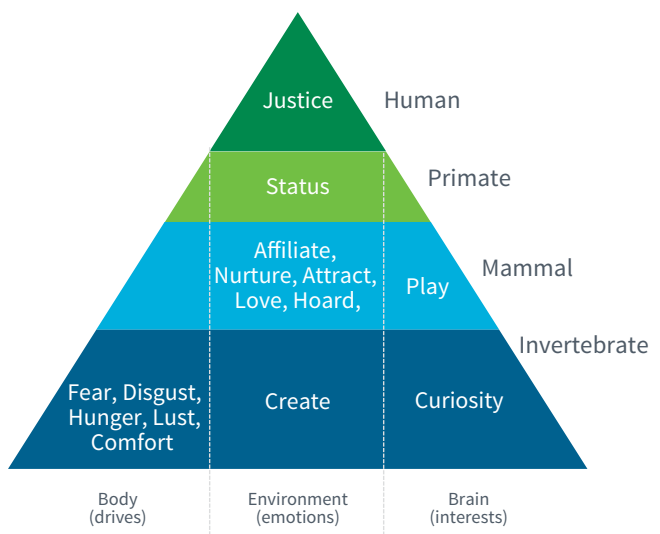
1. **The environment**, which presents a challenge or opportunity to the individual
2. **The brain**, which produces potential responses to that challenge
3. **The body**, which engages in interactions with the environment (i.e. produces behaviour) or changes that environment.

Using focus group discussions in 11 countries, LSHTM identified the key motivations for handwashing to be disgust, nurture, comfort and affiliation.

SNV Bhutan’s creative research process identified nurture and disgust as the most powerful motivators of hygiene behaviour. Further research of three different means of associating nurture with hygiene identified the strongest association as a farming metaphor

where the growth of seeds into healthy plants mirrors the growth of children into healthy adults. Conveying this metaphor through stories was a powerful means of encouraging good hygiene practices. This was then translated into a joint commitment or pledge, “*Like how a sapling needs water to grow, my child needs good behaviour like hand washing with soap*”.

Figure 11: Pyramid of motives showing emotional motives versus rational knowledge.



Ref: PHED/SNV (2017) FLARE presentation: [Using nurture and disgust to improve handwashing practices in Bhutan](#)

15 See www.lshtm.ac.uk/sites/default/files/2017-03/BCD%20Guide.pdf

2.3 Human Centred Design

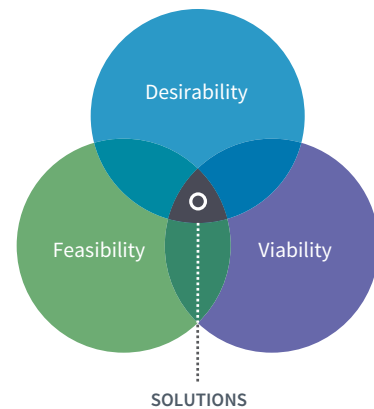
iDE adopted a **Human Centred Design** process to conduct ‘deep dive research’ to learn first-hand from households and to situate them at the centre of both product and program design. Their WASH product design process is thus to:

- **Hear:** Listen to the needs, aspirations, barriers, and motivators of everyone involved.
- **Create:** Explore multiple ideas and test them quickly to arrive at a desirable and feasible solution.
- **Deliver:** Design a viable business model that will sustainably deliver services to customers.

iDE’s Human Centred Design experiences suggest the scalable solutions tend to lie at the intersection of these three lenses:

1. **Desirability (Social):** What do users need and want? What are the drivers and barriers to adoption? What incentives drive their decisions? What is the entire user experience from initial exposure to the ongoing use and maintenance?
2. **Feasibility (Technical):** What can be done technically? Will this technology work locally?
3. **Viability (Economic):** What is financially and economically viable? Is there a financing model and incentive structure that allows this solution to be sustained for as long as it is needed?

Figure 12: Key elements of the iDE’s Human Centred Demand approach.



Ref: iDE www.ideglobal.org/story/human-centered-design



Interlocking brick toilet design for disability access latrine superstructure.
Photo credit: iDE Cambodia

CHAPTER 3

Changing hygiene behaviours

3.1 Community Led Total Sanitation

A Community Led Total Sanitation (CLTS) approach has been implemented by almost 70% of Fund projects. CLTS is a participatory methodology for mobilising communities to eliminate open defecation utilising the motivators of disgust and social affiliation. In CLTS facilitators ‘trigger’ communities to assess open defecation and mobilise participatory action to become open defecation free (ODF). CLTS triggers collective behaviour change by raising awareness that individuals’ open defecation behaviours place the collective at risk and encourages mutual support and innovation for greater local ownership and sustainability.

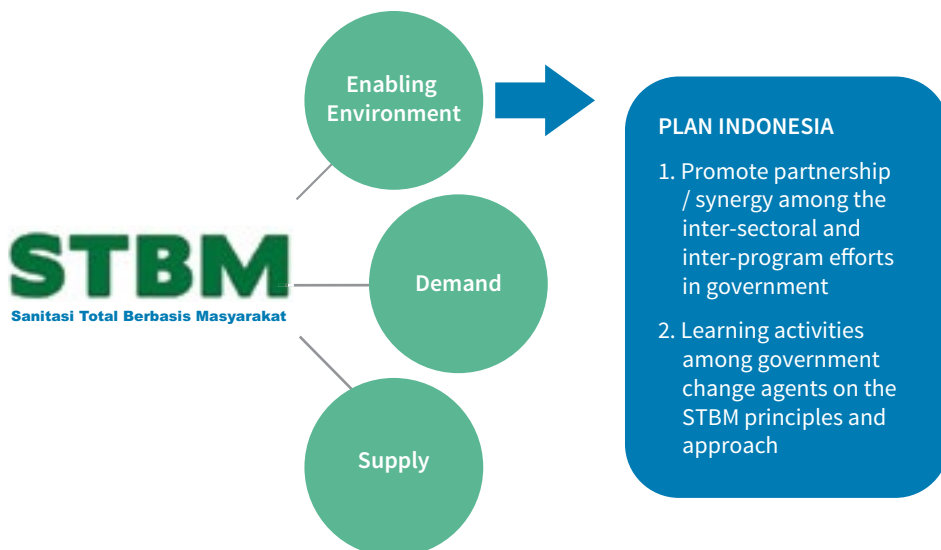
In Indonesia, Plan International has worked closely with district governments to implement the national community-based total sanitation (STBM) program. This approach targets five ‘pillars’ which include: achieving ODF (triggered by CLTS); handwashing with

soap (HWWS); treatment and storage of water in the home; and solid and liquid waste management. Plan’s partnership with the government to implement the government’s program is complemented by their work in sanitation marketing and budget advocacy.



Renae Davies from Australian Red Cross registers at the Fund Learning and Reflection Event. Photo credit: CS WASH FMF

Figure 13: Components of Plan’s STBM approach.



Ref: Plan International Indonesia (2017) FLARE presentation: [Partnership with sub-national government to implement STBM in NTT Province, Indonesia](#)

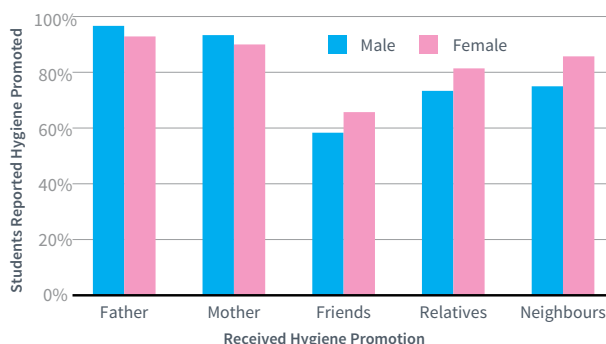
3.2 PHAST and CHAST

Almost a quarter of the projects in the Fund have applied the Participatory Hygiene and Sanitation Transformation (PHAST) approach. PHAST is an approach designed to promote hygiene behaviours, sanitation improvements and community management of water and sanitation facilities using specifically developed participatory techniques. PHAST relies on the understanding and believing of people to ensure a lasting change in their hygiene behaviour. The approach applies specific participatory activities for community groups to discover their faecal-oral contamination routes for diseases, analyse their own hygiene behaviours and plan how to block the major contamination routes.

Bangladesh Red Crescent Society (BDRCS) adapted this into a demand responsive, gender sensitive and child friendly approach called Children Hygiene and Sanitation Training (CHAST). This approach has been predominantly deployed in schools with students

to change hygiene and sanitation behaviour and practices. The approach treats students as change agents for school and community, with student surveys reporting the dissemination of hygiene messages in the household (>90%) to neighbours and relatives (>80%) and friends (>60%).

Figure 14: Self-reported data on extent to which students promoted hygiene messages with others.



Ref: BDRCS (2017) FLARE presentation: [WASH in schools: Hygiene promotion approaches in Bangladesh](#)



Girl participants on Global Handwashing Day, Llayya District. Photo credit: Plan Pakistan

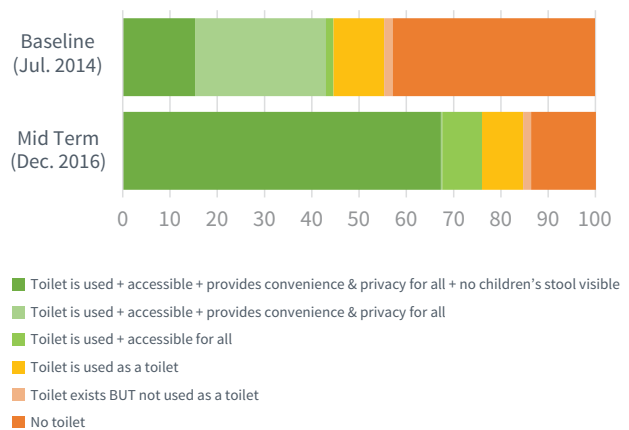
3.3 Hygiene Behaviour Change Communications

Hygiene Behaviour Change Communication (BCC) is an interactive process with individuals and communities to understand and establish communication modalities to identify and promote hygiene behaviours appropriate to their setting. This provides an environment through which will people can initiate, sustain and maintain positive hygiene behaviours.

In Nepal, SNV applied the BCC approach to support the efforts of the government program to go beyond ODF to achieve 100% sanitation. This comprised a systematic process beginning with formative research and behaviour analysis, developing the BCC campaigns based on known motivators and barriers (previous research, known norms) and the development and testing of the communication modalities and messages. This involved the prioritisation of difficult areas (i.e. districts in the Terai region which lags other regions and where people are considered stubborn), the targeting of two behaviours (i.e. the hygienic use of toilets and handwashing with soap), the segmentation of the audience (i.e. the disabled, the stubborn rich, the hard to reach poor) and the application at various times (i.e. as a part of ODF campaigns, post-ODF follow-up and total sanitation interventions) in Village District Committees.

This has contributed to a significant improvement in the effectiveness of sanitation coverage in the target districts with the availability, accessibility, use by all, privacy for all and safe disposal of child faeces increasing significantly from 15% to 67%. The focus on “use by all at all times” helped identify the structural issues which prevent all family members from using a latrine at all times.

Figure 15: Assessment of sanitation effectiveness at baseline compared to mid-term in Nepal.



Ref: SNV (2017) FLARE presentation: [Application of evidence-based behaviour change communications at different stages of sanitation progress](#)

3.4 Aspirational Marketing

Live & Learn initially used a hybrid of CLTS and PHAST approaches to behaviour change. Where most households are already practising some form of fixed point defecation, sanitation marketing approaches are more effective in assisting households to move up the sanitation ladder from unsafe to safely managed sanitation facilities. Live & Learn recognised the need to shift from disgust and shame to focus on aspirational motivations for influencing households to invest in higher quality sanitation facilities.

Live & Learn have adopted a hygiene promotion approach based on three forms of decision-making¹⁶:

- **Reactive behaviour:** A choice made without conscious thought
- **Motivated behaviour:** A choice made because of a perceived benefit or motivation
- **Executive behaviour:** A conscious choice based on information, most traditional hygiene promotion has focused on executive decision-making.

¹⁶ Aunger, R. and V. Curtis (2016) Behaviour Centred Design: towards an applied science of behaviour change, *Health Psychology Review*, 10:4, 425-446, <http://dx.doi.org/10.1080/17437199.2016.1219673>

The Live & Learn Hygiene Promotion framework is also informed by marketing theory – specifically designing health promotion messages around the concepts of:

- **Priming:** varied positive subconscious messaging on good sanitation and hygiene behaviour
- **Proximity:** ensuring sanitation and hygiene information, services and products are relevant, and nearby
- **Availability:** ensuring hygiene information, services and products are affordable and easy to obtain through Community-based Sanitation Enterprises¹⁷.

Live & Learn is promoting this approach through Community Based Sanitation Enterprises and influential community change agents, such as church leaders, to encourage households to invest in improved sanitation facilities and hygiene behaviours.

Figure 16: “Good toilet, clean hands, happy family” poster used by Live & Learn to motivate good sanitation.



3.5 Healthy Islands Concept

The Healthy Islands Concept is a holistic approach adopted widely in the Pacific focusing on development impact from collective health outcomes. The vision adopted by Pacific Island governments is where:

- Children are nurtured in body and mind
- Environments invite learning and leisure
- People work and age with dignity
- Ecological balance is a source of pride
- The ocean which sustains us is protected.

As illustrated by World Vision’s PNG Fund project, the Healthy Islands Concept framework resonates with local cultures and specific WASH approaches such as CLTS fit into this broader framework¹⁸. Utilising this participatory community engagement, planning, and monitoring approach now captured in a [manual](#), World Vision observed significant positive results with communities adopting safe sanitation hygiene behaviours and adapting their lifestyle to achieve better health and wellbeing. Communities achieving certain criteria become eligible for development investments.

¹⁷ Hollands, G., T. Marteau and P. Fletcher (2016) Nonconscious processes in changing health-related behaviour: a conceptual analysis and framework, *Health Psychology Review*, 10:4, 381-394, <http://dx.doi.org/10.1080/17437199.2015.1138093>

¹⁸ Yeung, S. and J. Selep (2016) *A tool to instigate and sustain hygiene behaviour change and link WASH with health: the Healthy Islands Concept in Papua New Guinea*. Briefing Paper. 9th WEDC International Conference, Kumasi, Ghana.

CHAPTER 4

Innovating, measuring and sustaining hygiene behaviour change

Recognising the difficulty of hygiene behaviour change, as well as the significant difference between self-reported and observed behaviours, CSOs have trialled a range of approaches and undertaken various studies to assess the effectiveness of these. This has been important in both improving the effectiveness of hygiene behaviour change programs as well as advocating with change agents for hygiene behaviour change program approaches.

4.1 Evo-Eco in Bhutan

In Bhutan the Public Health Engineering Department uses Community Development for Health (CDH) workshops as tools to create demand for sanitation amongst household members which is an adaptation of PHAST and CLTS. Workshops are conducted by health assistants to promote community action, raise hygiene awareness and stimulate improved toilet construction. With the assistance of SNV and in partnership with LSHTM, evidence based behaviour change communications to promote safe handwashing with soap – including the story of the seed, a glow-germ demonstration and household visits (CDH+) was added to the government programme (CDH) and the effectiveness assessed via a cluster randomised, controlled, intervention trial.

The [SNV-led trial results](#) showed a significant improvement in self-reported HWWS before feeding children and preparing food as compared to the CDH and the control clusters. Overall, there was a moderate increase in HWWS on all occasions from the control area of 13%, to the government intervention (CDH) of 17%, to the additional intervention area (CDH+) of 20%.

Figure 17: Randomised control trial of HWWS at critical times.

Outcome	Cont.	CDH	CDH+
HWWS all key occasions	13%	17%	20%
HWWS after faecal contact	20%	33%	31%
HWWS before feeding child	10%	12%	20%
HWWS before eating	8%	12%	12%
HWWS before preparing food	17%	18%	25%
Vessel with water & soap at latrine	31%	47%	54%

*p<.05, **p<.01

Ref: PHED/SNV (2017) FLARE presentation:

[Using nurture & disgust to improve handwashing practices in Bhutan](#)

4.2 Nudges

Nudge theory builds on psychological determinants of behaviour, aiming to encourage good behaviours through low-cost environmental cues. These cues aim to elicit to automatic processes that reflect quick, unconscious decision-making, rather than self-aware and controlled decision-making. Nudge approaches are commonly used in the health sector to encourage but not force people to make healthy choices and nudges are now being adapted to WASH challenges. For example, Save the Children Bangladesh trialled nudge theory to the challenge of improving HWWS in schools by providing environmental cues such as painted pathways to tap stands, and handprints on soap stations. The results of this trial showed a 70% increase in HWWS six weeks post intervention¹⁹ and this innovation won the Fund's inaugural 2016 [Civil Society Innovation Award](#).

19 Dreibelbis, R., Kroeger, A., Hossain, K., Venkatesh, M. and P. Ram. (2016) *Behaviour Change without Behaviour Change Communication: Nudging Handwashing among Primary School Students in Bangladesh*. International Journal of Environmental Research and Public Health. Jan 14;13(1)



Painted footprints to the handwashing station 'nudge' behaviour for school hand hygiene. Photo credit: Thrive Networks Vietnam

Inspired by success of this approach, Thrive Networks Vietnam undertook a research activity to test the adaptability of this school WASH approach to different contexts. They undertook nudge interventions at six schools and observed HWWS behaviour at various intervals after the intervention. Some lessons Thrive noted were the potential interference when teachers instructed students to wash hands and that lack of soap is a common barrier. [Thrive Network's study](#) found that the nudge intervention on average increased HWWS by just under 30% and that these behaviours were sustained at four and six weeks. These findings confirm that, when accompanied with adequate facilities, low cost environmental cues can significantly improve HWWS in schools, with likely implications for other settings.

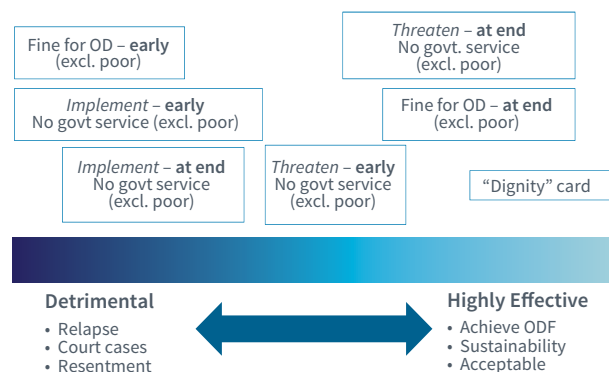
4.3 Sanctions and incentives

The overwhelming success of the movement to eradicate open defecation in Nepal has led to the identification of some second order challenges with respect to the balance of sanctions versus incentives in reaching and sustaining hygienic latrine usage. In the Terai region district governments perceived that the introduction of sanctions was the only

option to achieve government ODF targets. The types of sanctions introduced included "proceedings" against government officials without a toilet and the withholding of government services for households that had not obtained a sanitation identity card (which is granted on latrine verification). SNV did not support the introduction of sanctions on the premise that such sanctions disproportionately affect the poor who have the greatest need and a right to government services.

With growing resentment about being forced to install latrines, as well as a slippage in latrine usage and even some high profile human rights court cases raising the extent to which this disproportionately affects the poor, the government has rescinded the previous order encouraging the use of sanctions. As a result, while sanitation identity cards continue to be used, they are now promoted as a source of pride for the poor and as a means of placing social pressure on the rich households to install toilets. SNV points out that the balance of incentives versus sanctions is dependent on the stage at which a particular area is at in achieving ODF.

Figure 18: Spectrum of sanctions versus incentives in triggering and sustaining ODF.



Ref: SNV (2017) FLARE presentation: [Limitations of sanctions in achieving and maintaining ODF](#)



Future opportunities

Across the Fund there has been progress in increasing the appreciation within CSOs and their change agents about the significance of good hygiene behaviours – particularly hygienic sanitation, HWWS, infant faeces management and menstrual hygiene management. In aggregate, the Fund CSOs have exceeded their targets in increasing knowledge of hygiene behaviours, but evidence increasingly shows that this may not translate to changed behaviours.

Areas that remain to be further debated and explored include evaluating the health or development impact of hygiene behaviour change, and extent to which CSOs or others should play a role in measuring this

impact. For instance, while handwashing facilities and HWWS interventions in schools are justified based on reduced absenteeism and improved health, projects could do more to generate data on school absenteeism and child growth, and make this data available to the schools. Similarly, while menstrual hygiene facilities in schools are important to reduce female absenteeism and improve academic achievement, projects have yet to collect evidence that these expected impacts are happening. There is a need to better understand how improved hygiene practices are affecting height and weight of children and also a need to make information on the acute and chronic nutritional status of children available to parents and caregivers.



Woman in Sabu Raijua District in Indonesia uses a water filter to have safe drinking water. Photo credit: Plan Indonesia

THE EVENT

Fund Learning and Reflection Event

The [CS WASH Fund Learning and Reflection Event \(FLARE\)](#), held in Brisbane, Australia from the 1-4 August 2017, brought together 128 representatives from the 29 projects implemented in 19 countries Southern Africa, Southeast Asia, South Asia and the Pacific by Australian Red Cross (ARC), Habitat for Humanity (HfH), International Development Enterprises (iDE), International Rescue Committee (IRC), Live and Learn Environmental Education (L&L), Plan International Australia, Save the Children (SCA), Netherlands Development Organisation (SNV), Thrive Networks, United Purpose (formerly Concern Universal), WaterAid Australia, Welthungerhilfe (WHH) and World Vision (WV). This synthesis report, one of three thematic reports, is a compilation of the contributions of the 13 CSOs and their change agents, the Monitoring and Review Panel (MERP) and Fund Management Facility (FMF) throughout the various e-Discussions, webinar, presentations and face-to-face discussions that together constituted this learning event. The FLARE was part of the Knowledge and Learning component of the CS WASH Fund, a \$103m initiative supported by the Australian Department of Foreign Affairs and Trade.



Participants of the Fund Learning and Reflection Event in Brisbane, August 2017. Photo credit: CS WASH FMF



CIVIL SOCIETY
WATER, SANITATION
AND HYGIENE FUND

Level 6, 444 Queen Street
Brisbane Qld 4000, Australia
+61 7 3025 8500

www.cswashfund.org
cswashfundonline@thepalladiumgroup.com