THEMATIC DISCUSSION SERIES COMPILATION

sustainable sanitation alliance

sustainable sanitation alliance forum

Imprint

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Foreword
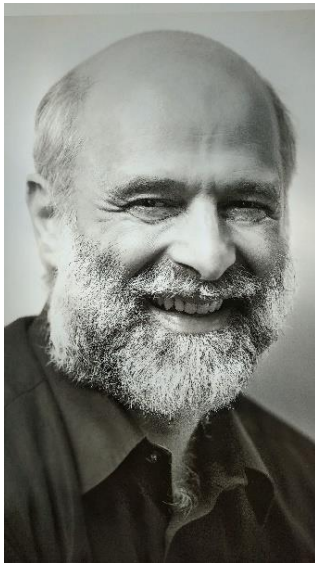
The *right to sanitation* was recognized by the United Nations as a distinct human right. Still today, billions of people around the world continue to lack of access to safe and equitable sanitation services. Sustainable sanitation, which takes the entire sanitation value chain into account, continues to be an even more elusive goal. In order to achieve the renewed sanitation goals put forth by the United Nations Sustainable Development Goals (SDGs), extraordinary measures are essential.

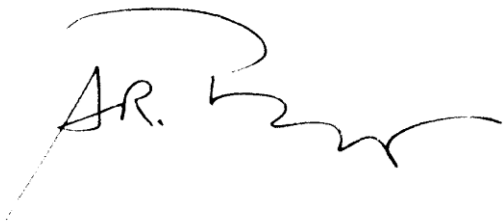The Sustainable Sanitation Alliance (SuSanA) aims to contribute to these goals, in particular SDG 6 on various levels. One is to foster consensus building around controversial and emerging topics in the broader area of sustainable sanitation. The SuSanA Discussion Forum is an online space where a plethora of sanitation topics are discussed, but the discussion threads and interesting conclusions can be easily lost. Therefore, the idea to use the Forum for structured thematic discussions, which results in summary publications around selected topics came up. I am very happy that a range of SuSanA partners absorbed this idea, facilitated and populated the Forum with a considerable number of such thematic discussions supported by the SuSanA secretariat.

It is great that many of the outstanding sector experts were ready to contribute substantially so that the discussions grew into opportunities to receive in-depth summaries from high-level experts as well as first hand experiences from the ground practitioners around the world - a true reflection of what SuSanA embodies.

The compilation uniquely presents the outcomes of an innovative approach for acquisition of otherwise hard to come by facts and an in-depth analysis on the different components of the sanitation service chain. I hope you find the result useful in your work. May these discussion help us gradually fill the gaps in the sanitation service chain, so that we can effectively play our part in the achievement of the sustainable sanitation goal.

Dr. Arne Panesar
On behalf of the SuSanA Secretariat

Eschborn, August 2018

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Executive Summary

SuSanA – a platform for dialogue and exchange in the SDG era

Despite intense activity and some considerable achievements, the Millennium Development Goal (MDG) on safe drinking water and basic sanitation was not met by the 2015 deadline. In 2017, 4.5 billion people lack access to safely managed sanitation according to WHO and UNICEF.

The Sustainable Development Goal on sustainable water and sanitation management (SDG 6) aims at giving access to water and sanitation to all by 2030 and is much more comprehensive and ambitious than the MDGs. The targets under SDG 6 address sanitation beyond toilets, including aspects of excreta management and reuse. Furthermore, adequate sanitation, hygiene and wastewater management are fundamental to achieving many of the other SDGs.

Business as usual will not work to achieve SDG 6 and all actors are required to strengthen their efforts in order to promote large-scale sanitation rollouts and to "leave no one behind". The Sustainable Sanitation Alliance (SuSanA) is committed to facilitate the development and discussion of advocacy, decision making, planning and monitoring tools for scaling up of sustainable sanitation and creating an enabling environment. The many linkages between sanitation and targets across all SDGs offer opportunities for SuSanA to reach out and cooperate with other sectors to facilitate an integrated approach to implementation. As a network of organizations working along the same lines, SuSanA offers an inclusive platform for stakeholders to reach consensus and to bring together both intra- and cross-sectoral dialogue and collaboration.

SuSanA's Thematic Discussion Series

Against this background, SuSanA initiated its Thematic Discussion Series. The Thematic Discussion Series is an initiative to engage actors from interconnected areas of expertise. The discussions take place on the SuSanA Forum, are limited to 2-4 weeks and are guided and led by thematic leads. At the end of each discussion, a synthesis paper was generated improving knowledge management, building consensus and helping practitioners move forward in their field.

Since 2015, more than 10 Thematic Discussions have taken place on the SuSanA Discussion Forum, including thematic discussion from the SuSanA India Chapter. A range of SuSanA partner organizations have approached us and organized an online discussion on a topic of their interest. They brought together actors from different sectors and discussed the mechanisms for scaling up sanitation in many different contexts. The results of the discussions were summarized and publicly made available. Often they have been used for advocacy activities or fed into further publications such as policy papers.
This compilation brings together the synthesis papers of SuSanA's Thematic Discussion Series that were hosted on the Discussion Forum until May 2018. We thank all SuSanA partner organizations and SuSanA members that have contributed to the discussions.

Enjoy reading!

SuSanA Secretariat

SuSanA – Sustainable sanitation for all

SuSanA works for a world in which all people have access to adequate sanitation, regardless of gender, age, income, culture or location. Sanitation systems are important contributors to broader sustainable development.

We believe that sustainable sanitation is the key to realizing this vision. That means that sanitation systems should be economically viable, socially acceptable, technically and institutionally appropriate, and protect health, the environment and natural resources.

The SDGs and the many interlinkages between sanitation and other goals make the work of SuSanA more important than ever.
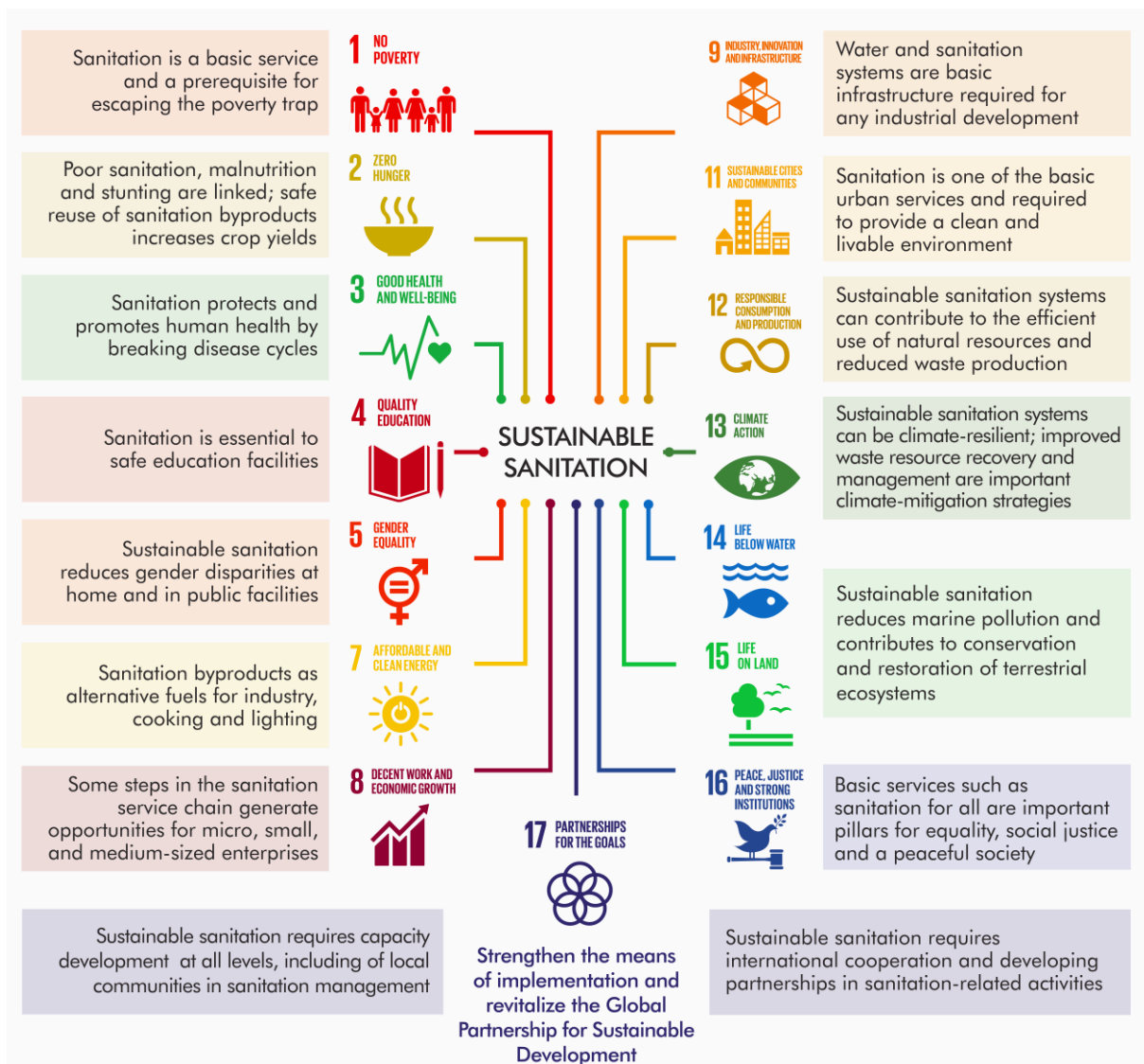

Figure 1. The linkages of sustainable sanitation to the SDGs beyond SDG 6 (Source: SuSanA)

Content

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Thematic Discussion Series in the SuSanA India Chapter
(to be published in summer 2019)

On the way to a "clean India" – 2 years of Swachh Bharat Mission (Gramin/rural)
Organized by ISC •
Thematic leads: Naina Kidwai (ISC); Sanchita Ghosh (WSSCC); Sujoy Mojumdar (UNICEF India); Siddhartha Das (WaterAid)

On the way to a "clean India" – 2 years of Swachh Bharat Mission (Urban)
Organized by ISC •
Thematic leads: Naina Kidwai (ISC); Sanchita Ghosh (WSSCC); Sujoy Mojumdar (UNICEF India); Siddhartha Das (WaterAid)

Corporate Engagement in Sanitation
Organized by ISC •
Thematic leads: Jayanti Shukla (United Way); Neeraj Jain (PATH); Cheryl Hicks (Toilet Board Coalition); Sandhya Tenneti (Samhita Social Ventures)

Faecal Sludge Management – The Pathway to 'Clean India'?
Organized by ISC •
Thematic leads: Antoinette Kome (SNV); Dirk Walther (GIZ); and India Sanitation Coalition (ISC)

Case studies are signposts for recognition and encouragement
Organized by ISC •
Thematic leads: Girija Bharat (Mu Gamma Consultants Pvt Ltd); Aprajita Singh (PSI); Robin von Kippersluis (World Bank)

WASH in Schools: What Next After 100% Coverage
Organized by ISC •
Thematic leads: Mahesh Nathan (World Vision India); Arundhati Muralidharan (WaterAid India); Srinivas Chary (College of India)

Innovations in WASH
Organized by ISC •
Thematic leads: Paramita Dey (NIUA); Vipul Kumar (Ennovent India)

From missing market incentives to misaligned incentives. What is choking India's rural sanitation progress?
Organized by ISC •
Thematic lead: Aprajita Singh (PSI)

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The Sanitation Ladder: Next Steps

Thematic leads: Patrick Bracken (GIZ); Elisabeth Kvarnström (Urban Water Management, Inc.), Ricard Gine (Universitat Polècnica de Catalunya)

Contents:

- Why a functional sanitation ladder (FSL)?
- Defining new roles for the FSL
- Context of the FSL in global processes
- Considerations for integrating functionality and SDG indicators in the FSL
- Incorporating aspects into the FSL
- Complementary frameworks and tools to the functional ladder
- Further suggestions for steps forward

This first thematic discussion addressed the role of the Functional Sanitation Ladder in the WASH-related post-2015 landscape, where discussions and negotiations are currently taking place to determine the targets and indicators of the Sustainable Development Goals (SDGs) for 2015-2030.

The discussion was led by three thematic experts, Patrick Bracken, Elisabeth Kvarnström, and Ricard Gine on the SuSanA Discussion Forum from 9-27 February 2015 with weekly topics of:
Week 1: Evolution and Further Development of the Sanitation Ladder
Week 2: The post-2015 agenda & emerging monitoring challenges in the sanitation sector
Week 3: The way forward…adaptation of the sanitation ladder to the post-2015 period

As the discussion unfolded, several of the **key issues** were discussed, including: implications of the SDG indicators on a Functional Sanitation Ladder; including equity, human rights and schools and health centres in the framework; defining "safe" sanitation; complementary ideas to a sanitation ladder; and adopting the Functional Sanitation Ladder.

The following is a synthesis of the posts, which took place in the discussions and does not necessarily represent the views of all contributors or SuSanA. A list of contributors to the discussion can be found on the last page of this chapter.

Why a Functional Sanitation Ladder (FSL)?

The discussion was introduced as starting from the basis of the publication of the paper "The Sanitation Ladder: A need for a revamp?" (2011) which describes a function-based seven-step ladder sanitation ladder (see the next table for the ladder) as a "revamp" to the technology-focused sanitation ladder which is currently the monitoring framework used at a global level for the WHO/ UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP) monitoring of global development goals.

There was discussion, which focused on the reason for the shift to a functional ladder approach, including the aim that the outcome and impact of a functioning sanitation system should be the focus of sanitation monitoring and thus be technically neutral. For example, the focus would be on:

- ➢ lower rungs: health protection (first step as excreta containment)
- ➢ higher rungs: progressively added issues of environmental protection and the integrated resource management of different flow streams in sanitation systems

The technology-focused and function-based sanitation ladder images are on the next page.

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Proposed function-based sanitation ladder (Kvarnström et al., 2011)[1]:

Table 2 | Suggested function-based sanitation ladder*

		Function	Indicators	Management needs
Environmental functions	7	Integrated resource management	Indicators will differ and depend on flowstreams from the full environmental sanitation system (urine, faeces, greywater, faecal sludge, wastewater as below but also including water provision, stormwater management and solid waste management) and context	
	6	Eutrophication risk reduction	Indicators will differ and depend on flow stream from the sanitation system (urine, faeces, greywater, faecal sludge, wastewater)	
	5	Nutrient reuse	(i) X% of N, P, K excreted is recycled for crop production, (ii) Y% of used water is recycled for productive use	
Health functions	4	Pathogen reduction in treatment	Indicators will differ and depend on flow stream from the sanitation system (urine, faeces, greywater, faecal sludge, wastewater) and also whether the flowstream will be used productively afterwards or not	
	3	Greywater management	(i) No stagnant water in the compound, (ii) no stagnant water in the street, (iii) no mosquitoes or other vectors	
	2	Safe access and availability	(i) 24-hr access to facility year-round, (ii) facility offering privacy, personal safety and shelter, (iii) facility is adapted to needs of the users of the facility	
	1	Excreta containment	(i) Clean facility in obvious use, (ii) no flies or other vectors, (iii) no faecal matter lingering in or around latrine, (iv) hand-washing facility in obvious use with soap, (v) lid, (vi) odour-free facility	

*Note that moving up the ladder means that the functions below have also been fulfilled!

Technology-focused sanitation ladder (JMP, 2008)

Pros and Cons of the Functional Sanitation Ladder (FSL)

Several comments were made regarding general benefits and criticisms of the sanitation ladder, as well as more specifically about the Functional Sanitation Ladder, both of which are outlined here:

- ▲ (ladder) simple to understand
- ▲ (ladder) Linear concept: appeals to aspirational desire to move up the "social ladder"
- ▲ Priority setting: only those systems that satisfy the requirements of the previous rungs go through, with the primary priorities as containing excreta and assuring privacy, access, and acceptability
- ▲ Supports a move towards more sustainable sanitation frameworks that fulfil service expectations
- ▲ can cover dimensions to ensure the realisation of the multi-dimensional benefits of sanitation
- ▲ recognizes the context, and that a one-size fits all technological approach can be limiting to new technologies, and successful technologies in a context-specific way
- ▲ eases the framework for upscaling of new sanitation technologies
- ▲ Because ladder concept is accepted and well-known, can impact existing monitoring and inspire change to a function-focus (from a technology focus)
- ▲ concentrates on the function of the entire system, not just the user interface
- ▲ it has been applied in practice to support monitoring of sanitation interventions carried out by different development partners
- ▼ (ladder) Linear concept: reality often not linear - the ladder does not reflect multiple dimensions; and different functions are not always viewed in a culturally euro-centric concept of "climbing up"
- ▼ (ladder) Aspirational appeal: spontaneous advancement rare in a community, often due to: affordability, lack of awareness of next steps, satisfaction with current step
- ▼ Can fade out local priorities and stakeholder preferences
- ▼ Perspective that for some, if they aim to start at the bottom of the ladder, they may possibly miss out on opportunities to start higher up the ladder
- ▼ More complicated to understand for policy-makers than the technology-based ladder

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[1] While the FSL (image on left) moves up the ladder from bottom (excreta containment) to top (integrated resource management), the JMP ladder (right) moves from the top, with simpler sanitation solutions, and has more advanced solutions at the bottom of the ladder.

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▼ More information required for assessment and analysis than for the technology-based ladder (TBL)

▼ Top rungs (which relate to other SDGs) are more academic than pragmatic, while lower rungs don't discriminate among those people with poor access to sanitation (at least, 35% of world's population)

▼ Possible negative reactions from "flush toilet" no longer always being the top spot

Defining new roles for the FSL

The use of the ladder has changed, with roles in monitoring (nation-wide and global), advocacy, influencing policy, and as a resource for implementation. For example, a municipality may use the new ladder to: assess the status quo, compare to other neighbourhoods/ cities in an objective fashion, identify gaps, and based on this, lobby for funds and propose new sanitation interventions.

Examples of use of the Sanitation Ladder

The Functional Sanitation Ladder has been adopted and adapted for implementation and use; see Box 1 and situations including:

Welthungerhilfe 6-Rung Functional Ladder	**IRC's WASH Cost Project (2008-2013)**	**Spanish Draft of the Sanitation Ladder**
Used a 6-rung function-based ladder to monitor progress in the sanitation and hygiene status of partner communities to specifically consider their project environments.	IRC's working paper "Assessing sanitation service levels" which outlines a costing perspective for different sanitation and hygiene service levels where different ladder rungs can be translated to different service levels.	A Spanish draft of the functional sanitation ladder can be found here.

Context of the FSL in Global Processes

A considerable amount of discussion concerned the current environment of change from the shift from the MDGs (2000-2015) to the negotiation process for the SDGs (to be implemented for 2015-2030). In particular, the relevance of a Functional Sanitation Ladder in the current climate, and how it would fit in with indicators and targets of the post-2015 agenda. The negotiations in 2015 in relation to the SDGs will be based on the OWG recommendations, but inputs from other parallel processes will be also considered.

FSL Adaption:
SKAT's framework from Moldova

This example highlights a country-specific approach used by Skat (a Swiss funded water and sanitation organisation) in Moldova. See post #12011 for diagrams and the full post.

Context of Moldova

The situation in rural areas is has pit latrines in poor shape as the standard sanitation type, few sewers and wastewater treatment non-existent. Perspectives of government and funders range from sewers or nothing, supporting the MDGs and JMP ladder, and environmental protection via wastewater treatment.

Adapted sanitation ladder framework + service levels

The adapted ladder addresses different functions of sanitation independently, and treats them as different dimensions of the same thing rather than steps of a ladder, to define objectives, priorities and direct resources.

The framework described service levels in sanitation as: Protection of health; Protection of the environment; Dignity, comfort and status; and Human rights. The existing sanitation systems and technologies were ranked on the different dimensions and plotted on a two-dimensional graph (see diagram) of the axes of dimensions of service levels.

A key aspect that it addresses is that progress in one function does not necessarily mean progress in another, and thus has a shift from the linearity of the sanitation ladder.

Criticism included: that the functions/ dimensions of service levels plotted were not linked to each other; and that it does not incorporate a dimension for future benefits/ costs.

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Formulation of indicators and targets Post-2015:

Open Working Group on Sustainable Development Goals has proposed two different targets specifically related to sanitation. One"core" indicator is currently planned for each target. The drinking water and sanitation-related targets are:

Target 6.1 by 2030, achieve universal and equitable access to safe and affordable drinking water for all

Target 6.2 by 2030, achieve access to adequate and equitable sanitation and hygiene for all, and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

Target 6.3 by 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and increasing recycling and safe reuse by [x] per cent globally

Each core indicator will be supported by "supporting indicators". The OWG formulations of suggested sanitation-related SDGs aim at a high level, including transboundary water management, restoration of water eco systems. For more information, see http://goo.gl/mxH09v.

Roles of the JMP and the WASH Sector in the post-2015 process

The **JMP**, based on the above targets, has coordinated a consultative process to define more specific WASH post-2015 targets and indicators. At this point, the JMP will continue to monitor and report on all levels of the ladder.

JMP WASH professionals come from an expansion of the MDG perspective, where hygiene, equity, excreta management are in focus. Service delivery (rather than technology) is the aim and focus. The WASH Sector is currently recommending 33 core indicators for targets 6.1 and 6.2.

What is still being discussed at a global level:

- **Indicators**
- **Safely managed concept:** more ambitious than "basic sanitation" (under JMP: "improved sanitation") as basic sanitation needs to be achieved to have safely managed. Baseline will be challenging, and a call instead for "basic access" as more realistic, with a 50% improvement on safely managed by 2030.
- **Human rights:** including the commitment to human rights and equity, with the latter possibly monitored outside the SDG indicators
- **Measuring affordability:** keep separate from the ladder concept?

A list of key JMP definitions can be found in post #12075, including for basic sanitation, basic handwashing facilities, and safely managed sanitation.

Some JMP Provided Definitions for Target 6.2:

access (for all) - Implies facilities close to home that can be easily reached and used when needed

to adequate - Implies a system which hygienically separates excreta from human contact as well as safe disposal of excreta in situ, or transport to a treatment plant

and equitable - Implies progressive reduction and elimination of inequalities between population sub-groups

sanitation - Sanitation is the provision of facilities and services for safe management and disposal of human urine and faeces

and hygiene - Hygiene is the conditions and practices that help maintain health and prevent spread of disease including hand washing, menstrual hygiene management and food hygiene

for all - Suitable for use by men, women, girls and boys of all ages including people living with disabilities

end open defecation - Excreta of adults or children are: deposited (directly or after being covered by a layer of earth) in the bush, a field, a beach, or other open area; discharged directly into a drainage channel, river, sea, or other water body; or are wrapped in temporary material and discarded

Considerations for integrating functionality and SDG indicators in the FSL

Question

Are there different assessments at different boundary levels?

With a movement to look at the entire sanitation system and applying wider boundaries with the FSL in areas with varying levels of sanitation service, system boundaries may be set at different levels, for example:

Individual sanitation project level: with varying sanitation provision, even a small % of people practicing ODF could affect the health of everyone else – would the poorest form of sanitation in a community determine safety?

City/town/settlement level: particularly if Shit Flow Diagrams are used as a tool to assist monitoring. The edges are blurred of what the JMP might consider "safely managed sanitation", with a move towards looking at the system (including users, collection, transport, treatment etc.) and functionality, and what happens when different systems overlap.

Some approaches to address this may be:

Prioritise those practices that pose the greatest risk

Community mechanism for self-monitoring within the ladder, possible use as an indicator for ODF (taking into consideration, for example, this graph here: bit.ly/2A63EDH)

Defining the Terminology

Building from the JMP's definitions for targets, discussion continued on the incorporation of the proposed SDG targets and indicators in a functional framework. See for an exercise, which discusses how the definition of target elements could apply within target language see post #12223; and how they could apply to rungs of the Functional Sanitation Ladder:

Rung 1 (Excreta containment): proposed indicator "*Safely managed sanitation*...where excreta is safely disposed in situ or transported to a designated place for safe disposal or treatment."

Rung 2 (Safe access and availability): target 6.2 "*access* (for all) to *adequate* and *equitable*"

Rung 3 (Greywater management): target 6.3

Rung 4 (Pathogen reduction in treatment): proposed indicator "*Safely managed sanitation*"

Considerations of implementation of the FSL for monitoring

As current JMP monitoring is based on the technology-focused sanitation ladder, discussion arose around which factors need to be considered to develop indicators for future monitoring (JMP or not). The following factors were considered as considerations with the implementation of a functional ladder:

Source of data: Population-based surveys and national censuses may not be enough and other sources to collect data may be necessary. Shift to more qualitative data may be necessary.

Cost of data collection: Cost estimate of data collection for the JMP for the 169 SDG targets at $254 billion for 2015-2030, <1 cost-benefit ratio (see URL). And other issues include: capacity constraints, buy-in from stakeholders and ethics of spending. Would more information and data be needed to be collected?

Other uses of data: For example, for the type and number of toilets built and information on cost, lifespan, trends and effectiveness of new technologies.

Dimensions covered in the post-2015 targets: Sanitation dimensions have largely focused on health, and sanitation also has the potential to achieve other SDG targets as well.

Relation to the SDGs: The most recent SDG proposal seems to be measured against approximately rung 6 of the ladder (see post #11971 for image of ladder), whereas the MDG targets were more like rung 1 because they focused on separation between the human and its faeces, but did not include hygiene (hand washing was not included), so the MDG targets did not even meet the first FSLrung.

Collecting data through large surveys: Large surveys can only handle structured questions. Therefore, a limited number of categories in the technology-focused sanitation ladder made it easier to perform disaggregated analysis.

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Incorporating aspects into the FSL

Human Rights

Some questions which can be raised when considering human rights inclusion:

Should some communities be prioritized (ex. based on socio-economic/ demographic factors)? How to develop a special focus to identify and prioritize the most vulnerable population?

Implications of declaring HRWS before defining safe sanitation

Question raised: Is there value of declaring the HRWS without first defining what is an acceptable level of safety to which all persons on the planet should have access?

Doing so could have the following implications for:

- Those without full civilian rights (ex. refugees, illegal immigrants) as part of the Universal Declaration of Human Rights the provision of sanitation is a legally claimable right.

- Priority setting is based on the "greatest common good" (not necessarily in favour of minorities/ marginalized populations) vs. "no one left behind" (human right) concept in decision-making.

Progressive Realisation of Human Rights

Rather measure "rate of change" (need a baseline value) and not "level of achievement". A country can be evaluated based on the efforts it makes and improvements it achieves (see this article on developing an index for progressive realization of human rights)

Equality and Equity

Can the sanitation ladder reduce inequalities? How can it be integrated?

Argument: that the sanitation ladder approaches the 'advantaged' populations while the disadvantaged (vulnerable, marginalized) populations are omitted, where cost factor is the highest priority, and marginalised communities have little say in the decision-making process.

Flexibility is needed in the functional ladder, so if sanitation is a public good, marginalised population are financially supported to reach this public good (and not further marginalised by receiving badly implemented systems "just" for the poor)

How can equity be integrated into the ladder concept for monitoring?

For example, "new arrivals" in slums in planning cycles who are shunned on service provision. Progressive realization of rights includes the dimensions of economics, enabling environment and equity. *Equity* (defined to comprise these 3 dimensions) could be added to rungs 1 & 2 of the functional ladder viz., excreta containment and safe access and availability.

From a monitoring perspective, current JMP reports already attempts to report on wealth-based differences and rural/urban disparities; and the UN SR will be supporting the development of monitoring of equity

Considerations for measuring and monitoring equity

Need for several measures: ex. gender, income, features of geographical location, caste/community, special situations like conflict/ disaster situations). A Lorenz curve or Gini coefficient is the standard statistical measure of equity.

Disaggregated analysis: Sanitation access relates to rungs 1 & 2, the information for which is collected from large population surveys and national censuses. Therefore, disaggregated analysis (and provision of information) is required along with ensuring that the survey forms address equity (ex. addressing risk factors that result in inequity).

From post #12117, according to the First Consultation Report on monitoring WATSAN

Human rights do
- define the criteria against which enjoyment of the right can be assessed viz., availability, safety, acceptability, accessibility, affordability, participation, non-discrimination, accountability.
- require all groups to have access, over time, within the maximum extent of available resources.

Human rights do not mean:
- service must be free
- that private sector participation is prohibited
- everyone is entitled to a tap and flush toilet tomorrow

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Safe Sanitation

What is considered as safe/ adequate sanitation? The JMP plan moving forward seems to keep their technical definitions of "access to improved sanitation". And expand upon this by looking at if it's "safely managed sanitation" (defined as the population using an improved sanitation facility which is not shared with other households and where excreta is safely disposed in situ or transported to a designated place for safe disposal or treatment) with a specific mention of services.

This represents a shift from a minimum target of improved sanitation in the MDGs (about rung 1 of the FSL or below rung 1 – as hand washing was not included), to safely managed improved sanitation, **perhaps rungs 1 to 4**, including excreta containment; safe access and availability; greywater management; pathogen reduction through treatment dependent on context.

Sanitation Access of Schools and Health Centres

Should targets prioritize settings beyond the household? Rungs 3 & 4 of the FSL are important for health centres (ex. pathogen destruction, pharmaceutical drug presence, safe treatment of greywater), and adequate sanitation access could be covered in rungs 1 & 2.

Is a separate sanitation ladder necessary for schools and health centres? As per JMP definitions, basic sanitation includes shared facilities between not more than 5 households or 30 persons, whichever is lesser. A separate sanitation ladder is necessary if the above dimensions (e.g. waiting time, geographical distance, needs of users etc.,) are significantly different from shared facilities for households. However, integration into one ladder (although possibly with separate reporting), could be useful for simplicity of explaining concepts to stakeholders, harmonization of terms and comparative analysis.

Health-related targets and pathogen reduction

What indicators could be used for pathogen reduction? WHO Guidelines for reuse and the use of treatment proxies (time temperature etc.) Measure health-related targets: Instead of directly measuring pathogens, instead measure some health-related target, for ex. incidence of watery diarrhoea per thousand people or representative spot checks for common pathogens in stool samples. But, will not point to the cause of the illness, affected by the way it is recorded and confounding factors, and measures the outcome, not the output (which is what the SDG indicators measure)

Points of consideration include: the measurement for pathogen reduction in actual practice (vs. just the technology, ex. in an area with high monsoons), how would the data be collected, public health risk of agricultural reuse and food safety, including hygiene.

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Complementary frameworks and tools to the functional ladder

The discussion explored other frameworks and complementary frameworks to the FSL.

Index Approach

An index approach which allows various dimensions of sanitation to be combined (weighted and aggregated), whereas with the ladder, all the dimensions are aggregated using a multiplicative function meaning one cannot climb a ladder rung unless all dimensions are fulfilled (which is advantageous with one or two functions).

An example idea for an index approach is a **Scorecard system** (see post #11995)

This multi-dimensional score card would be a semi-quantitative monitoring system based on an index approach with a generic service level scoring at the end, or 4 to 5 core indicators to encourage stakeholders to optimise systems according to circumstances, in a flexible, simple format. Based on, for example, "Sanitary assessment forms" (WHO) and "Community Score Cards" (World Bank), the TAF, Aguasan sustainability assessment framework.

Another example was to develop **multi-part core monitoring indicator** (see post #12263). To develop one measurable, robust indicator for monitoring & reporting on each SDG target, as sanitation has several key dimensions and key elements in the targets. Functional ladder could be condensed into a 3-part code: for example – sanitation coverage, equity, costs and health + environment benefits, reading as "x% of sanitation coverage with y equity in access achieved at z cost-effectiveness ratio". This would quickly and compactly show performance on four key dimensions of sanitation provision.

Service Level Approach

Each level would define the minimum service need for that level, and in order to proceed to the next level then these minimum requirements need to be fulfilled. Different households or communities decide on the desired, appropriate service level for them (and thus not a "linear development", although lower levels of service may have more benefit to the household, while higher levels, more to the community in general). Sanitation systems could be ranked in a country according to the different dimensions, resulting in service levels for the different functions.

Good practice database and case studies

Good practice databases and case studies as a tool to accompany the sanitation ladder to fill the gap from a Functional Sanitation Ladder on pragmatic advice for decision-makers towards a role in implementation. The good practice approach is already used in health (for example, European Portal for Action on Health Inequalities), and case studies in sanitation have been published by SuSanA using a grading format which has potential to be adapted into a system using a numerical score from an index of factors which are relevant to the ladder rungs.

Further suggestions for steps forward

Suggestions from the discussion for the functional ladder

- Clarify who is served, who is not served
- Focus on a 4 to 5 rung ladder: as the first four steps are usually in focus and achieved
- Focus on the level of service delivered and relate them to a function-based approach: Currently the functions and rungs of the ladder do not allow all the differentiation between different service levels accessed by different households.

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- Can the FSL be used in developed and low-income countries (is it more useful for monitoring basic sanitation?
- Can the FSL be simplified to include aspects which can be considered as major concerns in settings that have no or limited sanitation, for example, including a rights approach conceptual framework (thus including issues of availability, physical accessibility, safety, acceptability, affordability)
- Possibility of including two (or more) dimensions to the sanitation ladder to make it less linear? This would perhaps be more stair-based rather than ladder based.
- How to practically incorporate the SDG targets and indicators in a way that will be pragmatic to achieve.

A Continued Call on Adaptations of the Functional Ladder

From the discussion, it would be helpful to further develop examples, which have oriented the functional ladder to the needs of practitioners, with indicators that measure towards "safely managed sanitation" to be able to use it towards target 6.2 and 6.3, which organizations can use locally in their sanitation work.

Next Step: of SuSanA Members and Discussion Participants

There were several mentions of the need to get involved in the OWG process, and to have a voice in developing indicators, particularly from a functional perspective. One suggestion was to prepare a recommendations report, a draft of which can be found here, and a role which this synthesis also takes.

Next Step: of the Thematic Leads

The leads emphasized that the thematic discussion has provided an impetus towards making the originally proposed functional ladder more practice-oriented and more relevant in the post-2015 context.

Their next steps will be to review the original functional ladder and produce a new version of the functional ladder. This brings it up to date to the post-2015 landscape that may be of use to implementers, providing them with a clear reference framework for their interventions and for monitoring, which conforms to the demands of the SDGs, and the development of the require tools to agree upon, conceive, design, and implement sanitation systems.

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Contributors

The following contributors made one or more posts on the forum. There were over 60 posts made by the participants during the three-week period. The contributors are listed in order of first posting.

Name of contributors (country)
Patrick Bracken (Germany)
Julius Krischan Makowka (Germany)

NAME OF CONTRIBUTOR	COUNTRY OF REGISTRATION
Patrick Bracken	Germany
Julius Krischan Makowka	Germany
Joe Turner	UK
Elisabeth Kvarnström	United States
Ricard Gine	Spain
Florian Klingel	Switzerland
Dorothee Spuhler	Switzerland
Sowmya Rajasekaran	India
Roslyn Graham	Germany/ Canada
F H Mughal	Pakistan
Elisabeth Von Muench	Germany
Marijn Zandee	Nepal
John Brogan	Switzerland
Fabiola Garduno	Mexico

Urban Sanitation Finance: From Macro to Micro Level

Thematic leads: Catarina Fonseca (IRC); Guy Norman (WSUP) (Theme I);
Sophie Trémolet & Goufrane Mansour (Trémolet Consulting) (Theme II);
Antoinette Kome (SNV); Kumi Abeysuriya (ISF-UTS) (Theme III)

This thematic discussion addressed the role of finance for achieving successful sanitation outcomes for urban areas. In particular, the role of taxes both at the national and local level was examined, microfinance models for households and small businesses were evaluated and the question of how cities can achieve full cost recovery of sanitation services by blending different forms of finance was discussed. Moreover, participants highlighted how the different levels can come together to sustainably finance every part of the sanitation chain. Finally, they located finance within the broader eco-system that is required to achieve sustainable sanitation outcomes.

From 23 June to 21 July 2015, sanitation finance at the macro, meso, and micro level was discussed on the SuSanA Discussion Forum.

Theme 1: Public
    Topic 1: Public Finance at National Level
    Topic 2: Public Finance at Local Level
Theme 2: Microfinance
Theme 3: City Level Sustainable Cost Recovery

Source: Sanitation chain icons taken from http://www.sanitationwindow.com/sanitation-value-chain

The discussion started out by looking at public finance through taxes at national level. Participants engaged in the question of why we actually need the national level, i.e. domestic public finance for sanitation, looked at the current levels of domestic finance at national level and proposed suggestions for how to successfully advocate for improved tracking and monitoring of government expenditures for sanitation.

Continuing the discussion on taxation, topic two of "Theme 1: Public Finance" focused on local taxation. While many issues regarding the need for the use of taxes to finance sanitation apply to both national and local taxes, the debate on local taxes[2] focused on the particular benefit of collecting taxes at the local level and dis-cussed in closer detail how (local) taxes can be used to finance sanitation.

From the macro level, the discussion moved to the micro level by taking a closer look at the issue of micro-finance. Approaching the topic of the role of households and small businesses in financing sanitation, the discussion started out by analysing the relevance of microfinance for financing sanitation before looking at the field of microfinance in closer detail and what it comprises. Focusing on microfinance institutions (MFIs) in particular, participants discussed their role and what motivation they

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[2] A tax is an obligatory payment, not directly related to a service one receives. Local taxes for urban sanitation could include: (i) a sanitation tax raised by the municipality, (ii) a sanitation tax collected through water bills (sanitation surcharge), and then disbursed either by the municipality or directly by the utility, (iii) a sanitation tax component raised by some other means, e.g. as a component of property tax, (iv) general non-remarked local taxes which are then allocated to sanitation.

might have to offer sanitation loans. Finally, Forum Members debated what it would take to develop the microfinance market for sanitation beyond piloting.

Financing sanitation at the city level, finally, focused on the question how cities can blend different sources of finance to achieve sustainable full cost recovery for the sanitation services they provide. Looking at different sources of finance and how the challenge of financing upfront investment and securing funds for the full-lifecycle can be achieved. This part of the discussion encouraged participants to think about new and creative ways to bring together different sources of finance to cover the three dimensions of sustainable full cost recovery: finance for sanitation services for (1) the entire city and its population; (2) the entire sanitation value chain; and (3) the full life-cycle.

How these three levels come together and interconnect is outlined in the subsequent section before addressing challenges and opportunities for sanitation beyond finance. The summary ends with some food for thought from the discussion leads. A list of contributors can be found on the last page.

The following is a synthesis of the posts published during the discussions. The synthesis does not necessarily reflect all the viewpoints expressed in the discussion nor can it take up every issue raised during the four weeks of debate. If you are interested in participants' postings in closer detail, please refer to the weekly summaries that were compiled for each topic or the respective discussion thread on the SuSanA Discussion Forum.

Macro Level: Domestic Public Finance

Funds derived from taxes raised at the national or local level are understood as domestic public finance. Domestic public finance, i.e. general taxation, can provide funds to finance sanitation services. Let's take a closer look at what participants regarded as the argumentative basis for its use, its potential as well as the challenges associated with it:

Why do we actually need national level, domestic public finance, for sanitation?

Defining "urban" in Urban Sanitation Finance:

The term "urban" refers to densely populated areas and "urban sanitation" encompasses the whole sys-tem from safe containment, collection, and transport to treatment and safe disposal or reuse of human waste. Looking at urban sanitation thus means looking at small towns, peri-urban areas but also slums within urban centres. Talking about financing urban sanitation in turn involves much more than talking about financing the technologies, but also needs to address the institutions – public and private – that need to be in place to provide a sanitation service – not just a toilet.

Sanitation is a public (health) issue

Water and sanitation services are enshrined in the Human Rights to Water and Sanitation and it is the government's responsibility to provide these services. Especially for the vast majority of the poor, public finance is always necessary in order to achieve a basic level of sanitation service – and the main source of public finance is taxation. The same is true for financing larger infrastructure – and the institutions that go with it.

Sanitation services cannot be (expected to be) paid by private households

The construction of toilets can be financed at household level (although there are known issues and obstacles in slum and densely populated areas). However, households cannot be expected to pay for investment in the infrastructure for excreta collection, waste disposal and treatment, as these are issues of public infrastructure requiring public investment for a public good that go beyond urban household responsibility. The same is true for the capacity building of government at city level for sanitation. In addition, in places where pit latrines are too expensive to reach everyone, public sanitation is needed and must be publicly financed.

Using tax money for sanitation has certain advantages and is necessary at times

Using taxpayer money is the most efficient and most sustainable way forward. Taxation forms a very critical part in an accountability feedback system between government and population. Finally, redistributive taxation is needed in countries with high levels of inequality.

Urban sanitation is not a local issue to be solved by a few pennies

Instead, urban sanitation is the responsibility of government and requires leadership and appropriate long-term finance.

What are current levels of domestic finance at national level?

Current public expenditure in sanitation is extremely small. Bangladesh, for instance, spends only 0.06 per cent of its GDP on sanitation (figures from 2012), Bolivia 0.2 per cent. Furthermore, it is often almost impossible to obtain reliable figures, given a lack of financial data that is publicly available.

How to successfully advocate for improved tracking and monitoring of government expenditure for sanitation?

Participants agreed that national expenditure on sanitation needs to be tracked and the data made available to improve transparency and monitoring in the WASH sector in order to hold countries accountable to their commitments. There are several tracking and monitoring systems that are noteworthy, for example, the UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) TrackFin initiative. Moreover, under the PAS Project at CEPT University in Ahmedabad, India, performance assessment systems have been set up in three Indian states. The systems use standardised service indicators agreed upon at the national level. Overall, however, information on expenditure remains elusive. A Strategic Partnership for lobbying and capacity building to make available sanitation expenditure data is currently being developed by IRC, Simavi, Wetlands and Akvo in cooperation with the Dutch Ministry of Foreign Affairs, which is set to start in 2016. It is a lobby and advocacy partnership, which aims to strengthen the capacities of civil society organisations at national and international level to lobby for transparency in budget allocations and expenditure tracking among others.

Timing Mismatch The beneficiary population is not able to pay all the costs upfront and thus requires an "investment."

Revenue Mismatch The costs exceed affordability.

Underwrite funding Financiers may require their funding to be underwritten by an external revenue source, given that the project carries significant risk until the infrastructure has been built, has be-gun to operate and revenue collection has reached a steady state.

Why local taxes matter?

As Guy Norman highlighted in his opening post for the discussion on local taxation, local taxes for sanitation are certainly not uncontroversial. While there are arguments that can be made against them, a strong case can also be made in favour of local taxation as became apparent in the course of the discussion:

- Presently, in many countries, local taxation only generates very small amounts of money	+ Local taxation can help build the social contract be-tween local government and its citizens
- Municipalities that raise local taxes are often bloated bureaucracies with corruption problems so taxes are not spent efficiently	+ Local taxes can provide a source of revenue that bridges various types of funding
- Theory suggests that local taxation should not be redistributive	+ Successfully collecting local taxes can build a municipality's credibility in order to access donor funding
	+ If the local level is responsible for funding, chances increase that decisions about priorities are made according to the real needs of the people

The use of (local) taxes

Taxes can be used to finance three major types of expenditures:

Infrastructure creation	O&M and asset management	Software (post construction support)
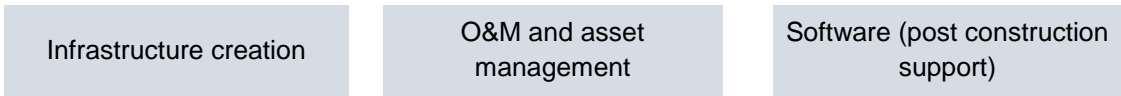
Locally raised money should be used for recurring costs, so local taxes are appropriate for paying the on-going O&M and asset management costs of treatment facilities. In addition, taxes can be used to: bridge a timing mismatch, bridge a revenue mismatch and underwriting funding.

Meso Level: City Level Sustainable Full Cost Recovery

In many countries, the responsibility for urban sanitation lies with local governments or local utilities. They are faced with the challenge of achieving full cost recovery for sanitation services so that sustainability for these services is guaranteed. For sustainable long-term sanitation services, the revenues should match or exceed the financing requirement over the lifecycle of the sanitation service.

Trade:
A Controversial
Revenue Stream

The 3Ts (tariffs, taxes, transfers) are widely accepted as a path to finance sanitation. The fourth T - trade constitutes a recent addition to the 3Ts that adds resource recovery as an additional revenue stream. Promoting the 4Ts as a way towards sustainable full cost recovery, however, is not commonly accepted within the field of sanitation finance. Whether trade is a useful addition to the 3Ts was also a matter of controversy among our discussion leads. Catarina Fonseca cautions against adding trade to the 3Ts as it constitutes a source of funds while tariffs, taxes, and transfers are funding mechanisms. Adding trade to the original 3Ts would thus result in a mix-up of terminology. In addition, there is no evidence to support extending the 3Ts by the fourth T trade, Fonseca warned.

Financing up-front investment and securing funds for the full-life cycle as major challenges

The main challenge for cities is how to finance upfront investment (e.g. treatment) if revenue streams are uncertain, given that revenues through tariffs, taxes, and trade take time to develop. In order to guarantee sustainable service systems, grants should not be solely relied upon as such a strategy poses the risk that consequently there is not sufficient incentive to develop revenue streams for O&M, let alone rehabilitation. It is not only about securing up-front investment but also about covering the full life-cycle costs. The timing mismatch between the various revenues on the one hand and the various expenditures on the other becomes apparent when looking at the following two graphs:

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Timing of Revenue Streams
a) Revenue from **tariffs** paid by users for sanitation services
b) Revenue from government (local, national) raised from **taxes**
c) Revenue from **trade**, i.e. revenue from the sale of products made out of waste, such as fertilizer or energy ("reuse")
d) Revenue from **transfers** of overseas development aid via the national government to local levels or from grants

Timing of Expenditures
a) Large upfront costs for the initial investment infrastructure
b) Ongoing costs for operating services
c) Larger intermittent maintenance requirements
d) Large costs for asset renewal as infrastructure elements approach the end of their lives.

Sustainable full cost recovery requires finding the right balance between the lifecycle costs and the possible lifecycle revenues from the 4 "T"s. This raises the following questions:
(1) How to support local governments and/or utilities to blend different sources of finance to improve or set up urban sanitation services in their city?
(2) How to overcome challenges accessing re-payable finance for urban sanitation?
(3) How to combine the 4 "T"s in order to finance sanitation services?

The three dimensions of sustainable full cost recovery

How to ensure finances for services covering the entire city, i.e. different geographical areas, different socio-economic situations, different service challenges?

How to ensure finances for services addressing the entire sanitation value chain?

How to ensure finances for services over time?

Blending different sources of finance to achieve sustainable full cost recovery

By blending different sources of finance, (full) cost recovery can be achieved, i.e. through a combination of public financing (taxes), tariffs from user services, transfers from overseas development aid (ODA) and/or other socially motivated / charitable entities (and potentially through "trade" of waste-derived products).

With regard to **tariffs**, around 1 USD per month per family is needed to achieve full cost recovery for small to medium-sized programmes comprising 5,000 to 25,000 households if scheduled desludging is a given. While most people can afford this, the question is whether they are willing to pay.

Taxes form another building block of sustainable full cost recovery, yet the ability of municipalities to collect their own taxes is limited (see section on taxes, particularly local taxes). **Transfers** can come in the form of overseas development aid (ODA). With regard to **trade**, it does not matter significantly if financial returns from reuse/"trade" are small, if they still contribute to the overall financial balance. In fact, the potential of revenue from "trade might increase in the future as sanitation waste

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streams offer a significant alternative source of agricultural nutrients, which will become increasingly important.

Commercial loans and **bonds** are another means to fund the large up-front investment for sanitation services. However, there are many challenges to municipalities gaining access to this kind of repayable finance, such as regulatory restrictions, difficulty for lenders to assess their creditworthiness, and financial market conditions. Repayable finance can provide access to large upfront capital at the time when it is needed.

Micro Level: Microfinance

Microfinance addresses the question of how households and small businesses can invest in sanitation and the sanitation sector, respectively. For households, the costs of building an improved latrine can represent a substantial part of their annual income. Similarly, sanitation service providers, such as pit-latrine emptiers, are faced with funding constraints when purchasing equipment or securing working capital. For both groups it appears essential to facilitate access to finance.

This raises the following questions:
- Why do initiatives to facilitate access to sanitation for the multitude of actors involved in sanitation still operate at a relatively small scale?
- Is there a role for financing instruments to help households and small businesses invest in the sanitation sector? Is it primarily useful in urban areas? Is it fair that households need to borrow at relatively high interest rates?
- Can microfinance play a role? What are the specifics?
- How can microfinance successfully fulfil its role in the sanitation sector?

Why is microfinance a topic worth discussing?

Access to sanitation can have beneficial health impacts and contribute to net income as households save on health expenditures. In many urban areas, this also means savings for households on payments for community toilets. Given that public funding alone will most likely be insufficient to deliver sustainable sanitation services and given that the full costs of toilets cannot be provided by government programmes or donors, the role of financing instruments to help households and small businesses invest in sanitation becomes pertinent. Without access to credit for purposes such as latrine construction, sanitation access will remain a problem.

Microfinance: Not only MFIs or loans

Microfinance is not only an issue of small credit but can include things such as (1) savings, (2) insurance, remittances and (4) community funds for example. In addition, microfinance constitutes more than just loans from microfinance institutions (MFIs) or NGO-MFIs. Rather, access to credit for households for sanitation facilities can also come from other sources, such as (1) commercial banks (public sector or private), (2) the cooperative sector (societies/banks), (3) local revolving funds, (4) self-help groups, and (5) crowdfunding platforms, for instance. However, the MFI approach is the most researched/documented approach to date.

Is selling debt to households ethical?

Given that, the average microfinance interest rate is currently over 25 per cent, can micro-finance loans be seriously promoted as a path for the poor to improve sanitation? Addressing the question, discussion leads Goufrane Mansour and Sophie Trémolet stressed that while loans for sanitation might not be "income-generating", they can be "income enhancing" as having adequate toilets can free up a considerable amount of time that can be used for productive activities.

While high interest rates constitute a worry that applies to microfinance in general, microfinance for sanitation nevertheless constitutes a pragmatic solution. In current circumstances, where access to finance is limited, households either build no toilets (defecate in the open or use public toilet blocks) or build very flimsy ones which do not last and do not provide hygienic protection, privacy and safety. As few countries have the means to massively subsidise sanitation (and for those who have done so, it has often failed), new ways to facilitate access to finance must be explored. Micro-credit is not the only option, but it is one that is growing and has the potential to grow further, the experts stated.

The Role of MFIs

The role of MFIs depends on the approach chosen. Among those mentioned in the discussion are the following:

- Seed funding can be channelled through microfinance institutions
- Grant funding can be blended with commercial funds to reduce borrowing costs
- Development banks can set up funds earmarked for MFIs to extend sanitation loans
- "Hybrid" NGOs-MFIs
- MFIs can provide bridge finance

Development banks setting up funds earmarked for MFIs to extend sanitation loans

In this model of blending public and private funds, Sophie Trémolet suggested during the discussion that public funds should be used for setting up the facility, sensitising the financial managers to the needs of the sanitation sector and providing a subsidy for poorer households to reduce investment costs. Interest rates, on the other hand, should be maintained at market rates in order not to distort the market in the long-run.

Why does micro-finance for sanitation work better* in India than in other countries?

This issue was addressed repeatedly during the discussion on microfinance and the following reasons were provided:

- An abundance of MFIs and NGOs with a microfinance arm has created healthy competition between these organisations that use sanitation loans as a way to create a link with customers.
- There is a political environment in which sanitation has been declared a priority.
- Indian households are familiar with taking, managing and reimbursing loans.
- Microfinance in India is extended by professional MFIs rather than as an add-on to a sanitation project run by an NGO (the latter being less successful with loan collection).

*It has to be noted that India still has huge sanitation problems. Also, microfinance for sanitation activities are still small compared to the size of the market (60% of the population remains without a toilet)

"Hybrid" NGOs-MFIs

"Hybrid" NGO-MFIs are chosen by many development programmes with the objective that such a model can take advantage of the access to finance options from the MFI operation after the development programme has come to a close. NGO-MFIs are also favoured as they fit well with development programme requirements. Moreover, these NGO-MFIs are often recipients of multi-donor funds that are tailored to offer subsidised financial schemes. An advantage of such NGO-MFIs is that they can use their core-funding generated from micro-finance operations to keep their programme capacities alive. Disadvantages, on the other hand, include potential operation mix-ups that can result in compliance chaos, as one participant noted. In addition, there is the concern that they might confuse loans with hand-outs and are thus less successful.

Are MFIs interested in sanitation loans? Why should they be?

Attracting new customers

MFIs seem to be willing to go beyond their traditional sectors to reach new markets considering the growing competition and are thus using WASH lending for other long-term gains. MFIs approach WASH loans in a fashion that expands their client base for more "profitable" loans: As the average WASH loan is much smaller than the typical income-generating loan, MFIs offering WASH loans are likely to attract first-time borrowers since the amount to be repaid is not as intimidating.

Existing lending portfolio can be used

Provided that MFIs understand the sanitation business, they can lend to well-organised sanitation businesses from their existing lending portfolio – i.e. they do not have to create a separate product.

Positive impact on local perceptions of MFIs

Lending for "social causes" such as water and sanitation – basic human needs – seems to have a large positive impact on local perceptions of an MFI.

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> **Why are initiatives to facilitate access to sanitation still at a relatively small scale? What will it take to develop the market beyond piloting?**

Several reasons were given during the discussion why microfinance initiatives to facilitate household access to sanitation are still at a relatively small scale:

- As sanitation loans to date are still very small, it does not make sense for the MFI to scale at the rate a development partner focused on WASH is interested in.
- MFIs have their own strategic priorities that may not include WASH at the top. Thus, WASH is competing with other social interests.
- It is not quite clear yet whether WASH loans are actually financially viable for the partnering MFIs.

Given these reasons, the experts predict that huge efforts over time are needed to develop the market beyond piloting. On the supply side, capacity building for MFIs is needed; on the demand side, households have to receive assistance in order to understand and assess their financing options.

Macro/Meso/Micro: Interconnections

Macro, meso, and micro level must each fulfil their part in achieving successful sanitation outcomes. Moreover, as the thematic discussion progressed, participants repeatedly emphasised that the three levels of finance interconnect, which is also highlighted by the repeated referrals to the other discussions over the course of the four weeks. Participants in the thematic discussion highlighted the following convergences:

Sanitation sector requires public and private sector involvement
The sanitation service sector requires both private and public sector involvement. As participants stressed, there is a place for private sector operators, however, it is the public sector's task to make sure that services are provided for all and that everyone is in compliance. In the case of sludge removal and transport services, both sectors can play a role. While the public sector must be in a position to obtain revenue from these services, this does not mean that it has to provide these services themselves. Instead, the public sector can either (1) levy licensing charges on private contractors or (2) contract private sector operators to provide services on behalf of the statutory service provider.

The design of public finance influences sanitation finance at micro level
The success of sanitation finance at micro level depends on how public finance is designed to leverage other funds. This in turn requires designing new programs that aim to leverage funds as well as advocating for policies that will attract adequate attention for sanitation. Such steps would help incentivise financial institutions to lend for sanitation. For MFIs to have policies in place that enable these institutions to have sanitation included in their social performance assessment would also be beneficial.

The 4 "T"s: Blending Funds to Achieve Sustainable Full Cost Recovery
Combining different sources of finance to achieve (full) cost recovery through a combination of public financing (taxes), tariffs from user services, transfers from overseas development aid (ODA) and/or other socially motivated/charitable, and 'trade' income from sale of waste-derived products entities highlights how the different levels come together to achieve sustainable models to finance sanitation.

Some microfinance models blend public and private funds
As seen in the section on microfinance, certain microfinance approaches blend public and private funds. In the case of "hybrid" NGO-MFIs, these are often recipients of multi-donor funds that are tailored to offer subsidised financial schemes. Similarly, in the case where development banks set up funds earmarked for MFIs to extend sanitation loans, public and private funds are also blended.

On-site sanitation

While responsibility of financing and investing in on-site sanitation is often given to site owners, it is not a private matter. Problems on the plots like leaky pits and tanks, pits/tanks not being accessible and buildings codes being violated constitute a major source of pollution which does not only affect plot owners but become a public concern and thus are not only a private matter. In these cases, it is reasonable to think that on-site sanitation should not be funded entirely by tariffs (paid for by service users) as this model does not result in satisfying sanitation outcomes.

Beyond Finance: Challenges & Opportunities

Providing sanitation services is complex. As participants highlighted, there are a great many interwoven factors that need to be simultaneously addressed – financing is just one of them. Sustainable full cost recovery is necessary but not sufficient for effectively providing long-term sanitation services. The following (broader) issues were addressed during the discussion.

Mind-set

Successfully providing sanitation services requires that people are aware that urban sanitation is a collective responsibility and that it needs to be addressed collectively, i.e. both by public officials and households. This requires building a collective consciousness around sanitation and a critical mass desiring change. This essential step cannot be bypassed or neglected. Only once this push for sanitation exists, can any financing model be successful.

Political Will & Leadership

Political will or the lack thereof tremendously affects sanitation success. The role of politics with regard to sanitation efforts played out on two levels during the discussion:

Sanitation affected by political cycles
In developing countries, public finance cannot be considered a stable and continuing source of funding due to disbursement issues but also because it is used to influence election results and thus might increase in the run up to an election but dry up quickly thereafter. However, this also provides an opportunity: recently it has been shown that sanitation has become an election tool, which provides opportunities for civil society to call for transparency of existing funds and more appropriate budgets for urban sanitation.

Communication with politicians/elites
As participants stressed, communication with politicians/elites must be improved to guarantee that sufficient funds for sanitation are mobilised and urban sanitation projects are realised. This includes presenting (economic) arguments and evidence in favour of sanitation services convincingly. For those working on the technological end of sanitation, it also means thinking about ways to get the message across to those out-side of the immediate technical field.

Financial Literacy

Financial literacy is needed at all levels. In order to be able to achieve sustainable full cost recovery for sanitation services, cities and local governments need to be knowledgeable about different financing sources, financing mechanisms and financing schemes. It is imperative to identify the most cost-effective sanitation solutions on the basis of life-cycle analysis, taking into account all costs incurred and revenues generated over the total lifespan of an investment. This requires training of personnel and capacity building.

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Yet financial literacy is not only required on the meso and macro level. Households have to receive assistance in order to understand and assess financing options. Similarly, capacity building is needed for MFIs to gain knowledge about the special demands of the sanitation sector. Finally, NGOs have to become literate regarding financing options in order to assess the right path for financing sanitation on the micro level.

Good Governance

Factors that broadly relate to good governance have to be taken into account.

Management

Effective management, administration and decision-making processes are needed to achieve sanitation out-comes efficiently. Once achieved, good practices and processes need to be maintained to avoid backsliding. Effective management extends to the efficient collection of taxes as well as the efficient utilisation of available funds. Finally, good management practices are those that try to achieve gradual steps of improvement without losing sight of the ultimate goal of full sanitation services.

Institutional Set-up

The success of local taxation depends on the administrative and fiscal systems in place. The degree of decentralisation affects local taxation measures. In centralised systems, all revenue basically goes to the central budget and is then transferred to local entities. As Guy Norman argued during the discussion on local taxation, in cases where centralisation of public revenue management is extreme, it should be viewed as flawed instead of being accepted uncritically. Rather than being considered a valid choice by the government, it should be seen as a model that needs to evolve. Even in a relatively centralised system, some degree of local control over tax revenues is essential for effective city management.

> **Financial Analysis**
>
> The "Interactive Septage Management Toolkit" provides helpful support for analysing finances for septage management.

> **The next five years are critical**
>
> "The next five years need to be used to generate national leadership, building the necessary alliances, creating the required capacity, testing the models and tools and above all securing the financing (and developing the financing mechanisms) that will, over the subsequent 10 years bring us to full coverage."
>
> From: Fonseca, C. and Mori-arty, P. "We only have five years to achieve clean water and safe toilet for all." *Guardian* 1 July 2015.

Breaking the vicious cycle of distrust, unwillingness to pay and poor services

Participants in the discussion repeatedly pointed to the following vicious cycle: users will only pay for a system that works, but how can a system that is worth paying for be developed with no money? Several suggestions for breaking the cycle were made:

Incentives

People need to be motivated to pay. Motivation can include (1) negative incentives (e.g. the threat of regulatory enforcement actions or fines), which, however, are often ineffective and (b) positive incentives. Positive incentives should be built into every aspect of septage management programmes. As sanitation expert Antoinette Kome argued, the urban sanitation sector ultimately requires a combination of stick and carrot. Local governments should work on smart enforcement and incentives for users and service providers, and national governments should use stick and carrot to motivate local governments to make progress on sanitation.

Services have to be improved first

As several participants argued, in order to overcome the deep distrust that many citizens have in their government, transparency, integrity and trust are critically important for the relationship between service providers and users. As an important step in this direction, services should be provided first and only on this basis should tax collection be mobilised to keep the services going. This means that there is the need for national and local governments to make the capital investment to improve sanitation and for these investments to be written off without the expectation that users or reuse/resource recovery will pay back the capital, participants stressed. Investment that "stretches" to initially subsidise O&M is also required as are international transfers.

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Appropriate eco-system is needed

Overall, participants emphasised that an appropriate eco-system is needed, comprising awareness, technology options, finance options, etc. Finance is just one part, albeit an important one. A holistic approach is needed that both develops demand for sanitation and strengthens the supply side in order to reduce the financial bur-den for households and the costs for building latrines.

Food for Thought

The next five years are critical for sanitation

A complete transformation of the water and sanitation sector is needed as well as a transformation of how it is financed. Something has to be done about finance in particular, as the current model of WASH financing based on charity and aid is incapable of delivering universal access to services. In order to bring us to full coverage within the 15-year time frame of the SDGs, the next five years are critical for various reasons, Catarina Fonseca argued.

Redistributive government finance has to be increased

Local Taxation is in many contexts a key element of sanitation finance. Development agencies should be striving to increase redistributive government finance for urban sanitation, be it from central or local government. Donor finance is not a sustainable solution, market finance is not going to resolve the sanitation problems of dense urban habitats and not facing up to the challenge of supporting public finance solutions will simply con-tribute to continuing failure.

Learning about and creating alternative solutions to financing sanitation

More piloting and documentation of different financing models and under different conditions have to be done. There is a need for gathering and sharing learning around these alternative solutions to facilitate access to finance. This is not only true for the micro level but also relevant for the city level where creative new ways of "balancing" of expenditure (cost) and revenue (finance) have to be found.

After all, sustainable full cost recovery is not a new and radical idea: Public hospitals and schools are routinely financed through combinations of tariffs, taxes and transfers (the 3 "T"s) in most places. Is this accepted with regard to hospitals and schools because we recognise that hospitals and schools provide enormous public benefit and that these services are too costly to be financed through affordable and equitable user fees/tariffs? Can we say the same about sanitation?

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Contributors

The following contributors made one or more posts on the forum. There were over 60 posts made by the participants during the three-week period. The contributors are listed in order of first posting.

NAME OF CONTRIBUTOR	COUNTRY OF REGISTRATION
Catarina Fonseca	Netherlands
Rainer Sibum	Zambia
Krischan Makowka	Philippines
Marijn Zandee	Nepal
Giacomo Galli	Netherlands
Jonathan Parkinson	UK
Elisabeth von Muench	Germany
Esther Shaylor	Philippines
Christoph Platzer	Brazil
Florian Klingel	Switzerland
Sowmya Rajasekaran	India
Cécile Laborderie	France
Hanns-André Pitot	Germany
Meera Mehta	India
Guy Norman	UK
F H Mughal	Pakistan
Sophie Trémolet	UK
Frank Wright	Botswana
Goufrane Mansour	UK
Lesley Pories	USA
Reza Patwary	Bangladesh
Raymond Serios	Philippines
Valentin Post	Netherlands
Otto Gonzalez	Guatemala
Mauricio Villagra	Nicaragua
Satya Choubey	India
Yi Wei	Cambodia
George Drummond	Uganda
Susan Engel	Australia
Antoinette Kome	Indonesia
Kumi Abeysuriya	Australia
Kevin Tayler	UK
Mordecai Musonge	Uganda
Dave Robbins	USA
Delphin Hararawe	Burundi

SDGs: Enough to end the sanitation crisis?

Thematic Leads: Rose Osinde Alabaster (Water Lex); Martin Gambrill (World Bank); Louisa Gosling (WaterAid); Graham Alabaster (UN-HABITAT); Hanna Woodburn (Global Public Private Partnership for Handwashing); Tim Brewer (WaterAid); Eddy Perez (Emory University)

Contents:

- SDG Indicators on Sanitation
- Civil Society & Data Collection
- Prioritising those most in need
- Basic v. Safe Sanitation
- Sanitation in the broader SDG context
- Food for Thought Contributors

This thematic discussion series organized by End Water Poverty[3] addressed the Sustainable Development Goals (SDGs) with regard to whether they will be able to provide momentum to ensure successful sanitation outcomes within their 15-year time period. In particular, the discussion examined the SDG indicators on sanitation, efforts to prioritise those most in need within the SDG process, civil society's role in monitoring the outcomes as well as basic sanitation versus safely managed sanitation. From 1 September to 14 September 2015, sanitation in the context of the Sustainable Development Goals was discussed on the SuSanA Discussion Forum and led by several sanitation experts:

Theme 1: SDG indicators

Rose Osinde Alabaster, Operations Desk Officer: Water Lex

Martin Gambrill, Lead Water and Sanitation Specialist, Water and Sanitation Program, World Bank

Theme 2: Prioritising those most in need

Louisa Gosling, Programme Manager for Principles: WaterAid

Theme 3: Civil society's role in monitoring

Graham Alabaster, Programme Manager: United Nations Human Settlements Programme (UN-HABITAT)

Hanna Woodburn: Global Public Private Partnership for Handwashing

Theme 4: Basic v. safe sanitation

Tim Brewer, Policy Analyst: WaterAid

Eddy Perez: Center for Global Safe Water, Sanitation and Hygiene at Emory University (Former Lead Sanitation Specialist, Water and Sanitation Program, World Bank)

The individual themes were running concurrently on the SuSanA Forum and, indeed, the individual topics show many interconnections that this synthesis aims to highlight. The following graph visualizes the main points addressed during the discussion.

Progressive realisation

Health

End open defecation

Hygiene

Safe versus basic sanitation

SDG indicators

Adequate Sanitation

sustainability

Global indicators   National indicators   Equitable access

Universal access   Gender

Prioritising those most in need

Monitoring ladder

Civil society's role in monitoring

Data collection   Community-sourced data

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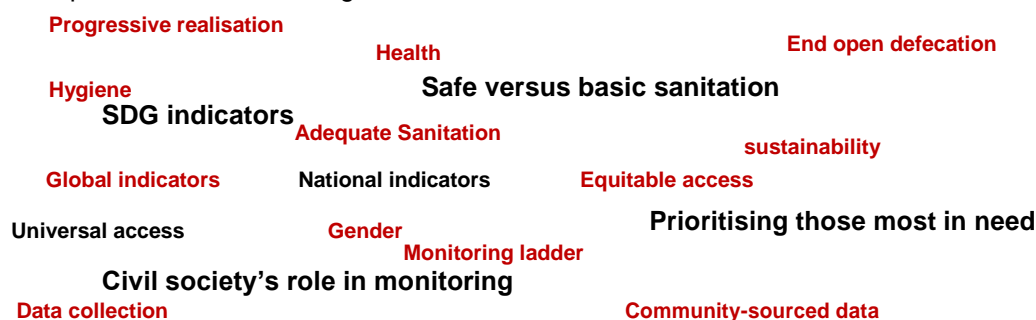
[3] End Water Poverty is a global civil society coalition made up of more than 340 members from around the world, all working toward ending the water and sanitation crisis. More info: www.endwaterpoverty.org

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The discussion on SDG indicators addressed the question of whether the current indicators are adequately phrased to enable countries to effectively deliver on the target with regard to sanitation in Sustainable Development Goal 6 on water and sanitation. Looking at the terms "equitable access" and "universal access", among others, participants investigated in closer detail, which concrete actions have to be taken to deliver on these key terms.

Looking at data collection, monitoring and the role of civil society in these areas, the discussion called for enhanced data collection, the integration of monitoring frameworks and new partnerships in monitoring. Participants evaluated the potential of using community-sourced data and investigated the concept of "monitoring ladders" to track progress on the SDGs.

How we ensure that the SDGs prioritise, and monitor progress, for those most in need of safe sanitation was another issue addressed during the thematic discussion series. Looking at the potential barriers, the discussion highlighted that a multitude of factors interact to result in exclusion from basic rights to water and sanitation and also critically assessed the claim that those most in need should be prioritised.

Trying to achieve universal coverage, basic sanitation services have to play an important role, participants stressed. Yet how can this strategy be reconciled with the aim to increase access to safely managed services? This seeming conflict was addressed during the discussion on "Basic v. Safe Sanitation" which concluded that both forms are needed in order to progressively realise universal access to safely managed services.

The synthesis ends by taking a closer look at sanitation in the broader SDG context and provides some food for thought from the discussion leads. A list of contributors can be found on the last page. The following is a synthesis of the posts published during the discussions. The synthesis does not necessarily express all the standpoints expressed in the discussion nor can it take up all the issue raised during the two weeks of debate. If you are interested in participants' postings in closer detail, please refer to the weekly summaries.

SDG Indicators on Sanitation

Given that the MDGs did not succeed in ensuring that everyone has access to safe sanitation, a discussion on whether the SDGs will be able to end the sanitation crisis requires looking at the SDG indicators on sanitation. In addition, asking the question whether they will increase progress to ensure that everyone has their right to water and sanitation realised.

17 Sustainable Development Goals

Goal 6: "Ensure availability and sustainable management of water and sanitation for all."

Target 6.2: "By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations."

Indicators: (a) Percentage of population using safely managed sanitation services
(b) Percentage of population with a hand washing facility with soap and water in the household*

*This indicator is not yet agreed upon and has not been supported by the IAEG as a mandatory global indicator at this point.

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As Rose Osinde Alabaster highlighted, there is broad support for further disaggregation of all indicators used for SDG reporting by location, age, sex, ethnicity, disability, migration status and other local forms of disadvantage. WHO/UNICEF's Joint Monitoring Programme (JMP) for Water Supply and Sanitation proposes to progressively disaggregate indicators by affordability, place of residence (rural/urban) and socioeconomic status (wealth, affordability) in all countries. Disaggregation by other stratifies of inequality (subnational, gender, disadvantaged groups, etc.) will be made where data permit.

Are the indicators[4] adequately defined/phrased?

Are the [two] indicators (and the additional indicators) adequately defined to enable countries to effectively deliver on the three key aspects listed in Target 6.2, namely:

Access to adequate and equitable sanitation and hygiene for all	End open defecation	Paying special attention to women, girls and those in vulnerable groups

To be able to effectively measure Target 6.2., in accordance with the normative and procedural framework of the Human Right to Water and Sanitation, it is important to unpack the language of Target 6.2. That means the precise meaning of terms employed in the definition of targets has to be determined.

Example: Equitable access

Achieving equitable access will require progressive reduction and elimination of inequalities between population sub-groups over the 15-year implementation period of the SDGs. This includes addressing inequality in coverage between the poorest and the richest, between rural and urban populations, and between ethnic groups, among others.

JMP data shows that in many countries, the gap in access between the bottom 40% and the top 40% income groups is wide both in terms of access but also in terms of the level of sanitation service provided to each group from along the sanitation ladder.

How can equitable access be achieved?

Establishing a baseline
As a first step to achieving the SDGs, countries will need to establish a baseline to help determine the existing structural, process, and outcome indicators that correspond to the SDG target on sanitation. Without the definition of a baseline, challenges may arise with respect to the definition of meaningful indicators and their subsequent development/refinement at the country level.

Need for proper targeting and prioritisation of sanitation interventions
Baselines will be useful in identifying who the different actors are and what the current provisions are in terms of budgeting and actual service delivery arrangements. This may often require a re-engineering in the planning, implementation and monitoring processes at the country level if the element of equity is to be effectively addressed. This in turn means that countries will have to be able to identify the gaps in their current indicator framework for measuring sanitation progress in order to be able to effectively implement and monitor the sanitation and hygiene targets.

WaterAid's proposal on sanitation indicators

With regard to the proposed indicator for sanitation ("Percentage of population using safely managed sanitation services"), WaterAid highlights that explicit reference has to be given to specific disaggregation to address the need for equity, progress up the service ladder and access in vulnerable situation.

WaterAid's proposal reads as follows: "Percentage of population using safely managed sanitation services disaggregated by service level (ODF, basic, safely managed) and location (home, school, health centre)."

Why is monitoring essential?

Monitoring is essential because without it we will not know the full extent of the situation and progress made, Hanna Woodburn stressed. Monitoring is the process by which governments will be held responsible for their commitments. To enable better decision-making, having a complete picture of the whole water sector is vital and this is where monitoring will play an important role.

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[4] **Two levels of indicators; Global indicators:** all countries are to report on the global indicators, **Local/regional indicators:** These indicators will be selected by countries and tailored to their specific context.

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Example: Universal access

Will the indicators as currently phrased provide the necessary incentives for the progressive realisation of universal access or do they only incentivise the highest level of service and thus ignore progress with regard to basic services, which are an essential part to achieve universal coverage? Should revised indicators be recommended to capture this nuance? As participants emphasised, it has to be ensured that global monitoring is mandated to count progress up the service ladder, by disaggregating the data by service level (according to JMPs proposed ladder) and by location (home, school and health centres as a first priority). Progress on both basic services and safely managed services should be tracked.

Preserving original thinking on SDG indicators

The challenge is to preserve as much of the original thinking on the SDGs as possible. The JMP proposals were based on an extensive period of consultation and discussion, producing some of the most considered indicator proposals across the SDG framework. The subsequent political process finalising the SDGS, however, has pushed and compressed those proposals.

A Word from JMP

Safely managed sanitation services
JMP is proposing the term "safely managed sanitation services" to include use of (not access to) improved facilities which are not shared (same as the MDGs so far) and where excreta is safely disposed in situ or transported and treated off -site. Both basic and safely managed services will be tracked and reported in JMP's future publications.

Service levels
The data collected by JMP yield information about different service levels for water supply and sanitation. The core proposed indicators for SDG monitoring of drinking water and sanitation are 'safely managed drinking water services' and 'safely managed sanitation services', respectively. JMP will also report lower service levels, such as basic water and sanitation services (similar to the 'improved' classification used for MDG tracking) and no services (e.g. open defecation or use of surface water as a drinking water source). Countries will need to reach universal coverage with a basic level of service before universal coverage of 'safely managed services' can be attained, and progress towards universal basic coverage should be seen as an important and necessary step towards reaching the SDG targets.

Location
The core proposed indicators for SDG monitoring of drinking water, sanitation and hygiene refer to services at the household level. JMP will also report on access to basic water, sanitation and hygiene services outside the home, focusing on schools and health facilities.

Civil Society & Data Collection

In order to verify whether the SDG targets on sanitation have been met, data collection is essential. This raises the question of how the numerous data sets and data collection/management systems will be harnessed in a way that allows for effective verification and in-country utilisation and what role the private sector, CSOs and other entities can play in promoting this monitoring? In particular, civil society's role in monitoring has to be addressed and the question of how civil society can contribute to the monitoring of goals and targets and how it can ensure improvements for all.

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Enhance data collection

There is the need to enhance data collection, data management systems and verification mechanisms. Effective monitoring is a prerequisite for making human rights meaningful and for ensuring accountability when laws and policies create, perpetuate or exacerbate deprivations. Consequently, data will need to be properly and effectively disaggregated, e.g. by sex, age, and wealth.

Integrate monitoring frameworks

The monitoring frameworks of the human rights world have to be harmonised with the sanitation sector monitoring frameworks (also given that the right to sanitation is derived from the group of economic, social, and cultural rights). This raises the question how the two (i.e. the Human Right to Water and Sanitation monitoring framework and the water and sanitation monitoring framework on access) can be effectively linked in a mutually reinforcing way as part of in-country capacity strengthening

Concept of "monitoring ladders"

To monitor the proposed indicators, Member States will be able to start their monitoring efforts at a level appropriate to their country's capacities and capabilities. They can then gradually ascend the "monitoring ladder." Thus, if a complex indicator is very difficult to measure, it is better that countries start to measure a few parameters and progressively advance up the ladder, Graham Alabaster suggested.

Partnerships in monitoring are called for

Monitoring is not free. It will require investment, mainly funded by governments, in addition to technical assistance. The implementation of good monitoring frameworks will need to be driven by national governments and ownership is critical. The idea of governments becoming progressively engaged is regarded positively. At the same time, there is also the need for community-collected information and data, which can easily be updated in real time to web-based platforms together with more formal monitoring.

Community-sourced data

Using community-sourced data and seeing where it can effectively be combined with more traditional forms of data collection to link the pieces of the jigsaw will constitute an important resource with regard to monitoring, discussion participants agreed. Communities can thus play a key role in both ensuring the details of the indicators are not forgotten and in seeing how they can contribute to measuring. There is thus a need for both sorts of monitoring, a combination of community-collected information and data, which can easily be updated in real time to web-based platforms together with more formal monitoring.

❖ **Why is community-sourced data important?**
Using community-sourced data is important as information becomes available that otherwise would not have become available at all or to such a detailed extent. Not taking into account such community-collected data, in turn, results in communities (e.g. slum communities) remaining

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CHALLENGE: MONITORING AT COUNTRY LEVEL

As one participant wrote, the real challenge with the achievement of the targets specified for sanitation is the dynamics of monitoring at country level. As the participant argued, all the monitoring efforts at the moment are placing more energy on impact level type of indicators, yet change at government level can only be realised if the monitoring process also tracks the inputs, processes, outputs, outcomes, and of course at a later stage, the impact. Monitoring processes with the sole focus on impact will be a futile exercise in the first three years of the implementation of SDGs because governments may not have started realising the much-desired results of their effort at impact level.

If we are to track the progress (as in "progressive realization"), then it will be important to place focus on monitoring the means of implementation (policies, capacity, finances) which would mean tracking inputs, processes (activities), outputs and to some extent outcomes.

To sum up, monitoring efforts in the first two years of implementing SDGs will require a set of indicators that probably are not being captured at the global level as the emphasis is on impact level indicators. The focus on impact level indicators excludes from view the important lower levels, the participant criticises.

Equity, Equality, Non-Discrimination, and Universality in Water, Sanitation, and Hygiene

Equity: The moral imperative to dismantle unjust differences. In the WASH context, equity requires a focus on marginalized groups, especially the poorest of the poor.

Non-Discrimination: The legal principle of non-discrimination prohibits the less favourable treatment of individuals or groups, or the detrimental impact on such individuals or groups based on prohibited grounds, such as ethnicity, sex, religion, or other status. In the WASH context, non-discrimination requires well-targeted and carefully tailored interventions to ensure no group suffers less favourable treatment or impact.

Equality: The legally binding obligation to ensure that everyone—regardless of status, race, sex, class, caste, or other factors—enjoys equal enjoyment of their rights. Equality requires a focus on all groups suffering direct or indirect discrimination in society, and substantive equality requires the adoption of affirmative action or temporary special measures when barriers persist. In the WASH context, equality necessitates progressive improvements to close gaps between those who have access at the level of an adequate standard of living and those who do not.

Universality: The foundational principle that all human beings have equal rights as human beings. In the WASH context, universality requires that services are provided to everyone—including those hardest to reach.

Source: END Working Group Final Report

under-represented and unseen in large surveys, which in turn results in inequalities between such communities and the rest of the city being obscured.

❖ **The problem with community-sourced data**

It is difficult to integrate such community- collected findings with census results because they do not constitute representative samples and might not employ a standard set of questions. This "standardisation problem" also poses a main hindrance to community-collected data finding entrance into statistical reports.

❖ **Suggestions how problems with community-sourced data can be overcome**

We need to find a way to get "official" offices of statistics and ministries to become more appreciative of community-collected data, understanding its limitations while using it to guide choices. The way ahead is to provide links between the "formal" monitoring methods with the goal of integrating community-collected data into the monitoring ladder structure. These non-traditional methods can interpolate and extrapolate in surveys that are more formal. Furthermore, despite many barriers to participation (including government non-responsiveness, technical limitation, etc.), much hope is still placed in citizen engagement using ICTs. Barriers have to be reduced and as one participant suggested, the WASHWatch Platform provides a positive example in this regard:

Example WASHwatch

The WASHwatch platform allows CSOs to share findings, which may confront or corroborate governments' reported progress on the different commitments they tabled at the global, regional and national levels. Concretely, the website displays all country commitments and there is a space for citizens to comment on governments' progresses or shortfalls, corroborated by evidence. Sector partners in various sector meetings can bring these comments to the attention of governments, and if evidence is strong, it will be hard to ignore. That way, governments are made aware of the shortfalls perceived by CSOs and a combination of public pressure and peer pressure can encourage them to take action.

Further roles of Civil Society

Civil Society has a number of additional roles to play in monitoring the SDGs. Among those are:

Advocacy	Make data available to policymakers	Identification and promotion of optional indicators	Holding governments accountable
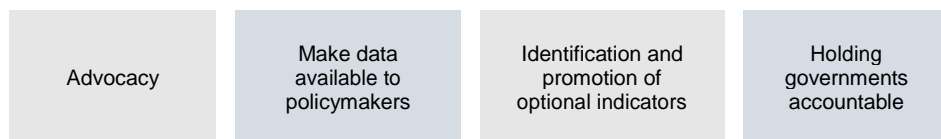
Prioritising those most in need

How do we ensure that the SDGs prioritise, and monitor progress, for those most in need of safe sanitation? How do we ensure that they realise the human right to water and sanitation? The checklist developed by the Equality and Non Discrimination (END) working group of the Joint Monitoring Program (JMP) highlights whom to focus on in the SDGs.

Suggestions for inclusiveness

One participant provided a number of concrete suggestions for inclusiveness. These are:

(a) Service Chains

Make sure that service chains (faecal sludge management, sewers, roads, etc.) do reach everyone.

(1) Promotion and awareness campaigns

For promotion and awareness campaigns,

(i) Make sure the same information is available in all languages spoken in your target area.

(ii) Make sure the gender and ethical/cast composition of your teams reflects that of the target populations.

(iii) Make sure "good examples, posters, etc." also depict the same variety of people as your target area.

(c) Indicators

Make sure that the goals for inclusiveness in your programs are reflected in the indicators for success.

> **Equality Checklist**
> When examined as a whole, do the goals, targets, and indicators:
> ✓ Prioritize basic access and focus on progressive realization toward safe and sustainable water, sanitation and hygiene for all, while reducing inequalities?
> ✓ Address spatial inequalities, such as those experienced by communities in remote and inaccessible rural areas and slum-dwellers in peri-urban areas?
> ✓ Focus on inequities, shining the light on the poorest of the poor?
> ✓ Address group-related inequalities that vary across countries, such as those based on ethnicity, race, nationality, language, religion, and caste?
> ✓ Attend to the impacts of individual-related inequalities that are relevant in every country of the globe, such as those based on sex/gender, age, disability, and health conditions imposing access constraints—as they are experienced both inside and beyond the household? Do they address menstrual hygiene management?

Are we really focusing on those most in need?

As one participant wondered, are development efforts indeed targeted towards those most in need given that market-based approaches to sanitation are prominent, yet those living on less than $1/day will not be able to invest in better sanitation services. Addressing this problem, Louisa Gosling emphasised that in order to achieve universal access the way services are designed should take into consideration the barriers that people face. Given that, there is a danger that market based approaches exclude those living on $1/day or less, the question has to be how can they be reached? What different ways of financing services will enable them to get on the first rung of the sanitation ladder? What combination of support and incentive will work in different situations? What is the role of the state in making sure services are affordable for all?

Controversy: Should those most in need really be our priority?

During the discussion, a debate erupted on whether those most in need should indeed be a priority in our efforts to improve sanitation services. Two issues were raised to rethink the claim:

Focusing on other groups first might guarantee more success

As participants noted, focusing on other groups first might guarantee more success and as a consequence make it easier to reach those harder/hardest to reach (assuming that those are equivalent to those most in need). Louisa Gosling agrees that the poorest might not be the ones that are most able to respond to triggers, which is critical for progress. Yet unless there is a focus on the most marginalised, they will continue to be left further and further behind.

Focusing on those most in need creates tensions with other parts of the population

As participants remarked there seems to be an inevitable conflict between addressing the needs of the majority and the conflicting needs of a minority. Moreover, participants noted that if we assist, financially or otherwise, the people we classify as "most in need", we probably end up excluding a large amount of people who are "much, but not most, in need." This may create tensions in communities. If you take the poverty line as a cut-off for an assistance programme, for example, you risk disheartening a very large sector of society who feels that they don't have the resources to build toilets, but who still are "too well off" to fall under your programme, a discussion participant stressed.

The latest report on the affordability of water and sanitation by the Special Rapporteur on the human right to safe drinking water and sanitation directly addresses the issue of how to make services affordable to everyone, whilst realistically covering the costs of a comprehensive and sustainable service. This is not an easy task especially with regard to prioritising the poorest, but it is up to everyone to play their part in developing models and approaches that move towards this end, Louisa Gosling emphasised.

Louisa Gosling commented on these points by emphasizing that the "hard to reach" are called that for a reason, but that the SDGs represent a global commitment to reach everyone, so the challenge must be met by practitioners, governments, development partners, and everyone involved in the delivery of

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safe services to all. While the SDGs clarify the need to prioritise those most marginalized, they do not expect everyone else to be ignored. To achieve universal access means ensuring services are for everyone, and experience shows that special attention needs to be paid to those who have been consistently left out due to their lack of voice and influence.

Problems/Challenges

Trying to address the inequalities, for example, listed in the checklist developed by the JMP END working group, several challenges arise. Among those are:

Inequalities are unaccounted for in official data

Addressing inequalities brings in many challenges precisely because so many aspects of lives affected by marginalization, poverty and social exclusion are under-reported and even invisible in official data.

- ✓ People in informal settlements
- ✓ Taboo Factors (illness, age, gender, disability, etc.)
- ✓ Specific population groups (caste, ethnic, religious groups)

Finding financing solutions for those most in need

- ✓ Reaching scale in sanitation: As a participant remarked, reaching scale in sanitation requires that supply and service chains be set up. Private sector involvement might be beneficial for the supply chain. Building a private sector based supply chain, in turn, would initially rely on customers who are able to pay, the participant suggested. Once a market exists, pro-poor subsidy programmes can work through the same supply chain. The problem of this approach is that initially those who cannot afford services are left out. On the other hand, building a supply chain for hardware around subsidies for the poor may result in a "private sector" that cannot live without these subsidies.
- ✓ Offering low cost options: Low cost options that are affordable to the great majority of the populations that people can identify with and that for environmental reasons do not pollute the groundwater have to be offered, a participant stressed.

How good should sanitation systems be for those most in need?

Addressing those most in need also means targeting open defecation. However, will this lead to a large number of people being given low quality (but cheap) sanitation facilities, which they must empty themselves (which is a high-risk activity), one participant wondered. Improving sanitation services for those most in need means that, at the most basic level, sanitation services will be provided to end open defecation. Yet how safe do these services have to be? Will access be prioritised over safety here?

Safety should be a top priority over and above cost, a participant stressed. A low cost system, which just ends up spreading material, and infection, is not worth having, he argued. Whether there are sanitation services, like ecological sanitation for instance, that can provide both is an issue of debate.

Louisa Gosling argued that the point about prioritising basic access is based on the principle of non-discrimination and equality, recognising the reality that for people who have nothing there has to be a step to something, along with a plan to incentivise and support progress towards improved services for all. States have an obligation to progressively realise human rights to water and sanitation, which means having a plan to move forward and not to slip backwards, she highlighted.

Basic v. Safe Sanitation[5]

Discussing the issue of basic sanitation on the one hand and safe/safely managed sanitation on the other, the question is what the difference between the two is, why the distinction is important and how it can be ensured that we reach those most in need.

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[5] As Rick Johnston from JMP noted during the discussion, JMP avoids using the terms "safe sanitation"/"safe water", using instead the term "safely managed services" which can be more clearly defined and measured.

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What does safe/safely managed sanitation services mean?

As Eddy Perez explained, the core principle of "safe[6]" sanitation is that it is a higher level of sanitation service that reduces the public health risks associated with human contact with faeces. The main reason that "safe" was included in the SDGs was a recognition by the global community that in particular in poor urban areas. Households may have access to "basic" sanitation (improved sanitation) at the household level but that the related poorly functioning sanitation value chain of containment, pit emptying, transport, and treatment/disposal creates a health hazard for households and communities. Hence would be considered "unsafe".

> **Shit Flow Diagrams (SFDs)**
>
> SFDs aim to provide a more comprehensive understanding of excreta management throughout the sanitation service chain. SDFs clearly and simply show how excreta is or is not contained as it moves along multiple pathways from defecation to disposal or end-use.

"Safe" sanitation also implies "safe behaviours". In rural areas, having access to basic sanitation facilities is ultimately not safe if the sanitation facilities are not used by all household members all of the time. Household, community and private sector behaviours thus also contribute to sanitation not being safe. The difference between safe and basic, in this sense, is that safe is the goal, basic is a step on the way, but if we only incentivise the goal, we may inadvertently encourage inequitable and inefficient means of getting there, Tim Brewer stated.

"Core Principle": Progressive realisation

The discussion should not be about "basic" versus "safe" sanitation as, ultimately, both forms are needed, Eddy Perez stressed. The sustainable development goals on WASH call for a complete end to open defecation and for access to "basic" sanitation for all. Moving up the ladder to safe sanitation during the next 15 years will be important but is not the main priority at this point. The core principle of the SDGs with regard to sanitation remains: basic sanitation for all as the priority – and safe sanitation for as many as possible. This implies that the sector should avoid investing in safe sanitation for some at the cost of basic sanitation for all and, instead, should work towards a progressive reduction of the equality gap between the rich and poor in access to basic sanitation.

Put differently, the definition of *success* for the WASH SDGs rightly is universal access to safely managed services. However, the definition of *good progress* should be progressive realisation of universal access to safely managed services, which should be defined as disproportionate improvements in the level of service for the poorest – so increasing the number of poor people with ODF (open defecation free) / basic services / shared safely managed is recognised as a priority, Tim Brewer wrote.

Long-term holistic strategic plan needed

As participants noted, every sanitation intervention should be part of a long-term holistic strategic plan, linking and sequencing interventions and infrastructure development to maximise the benefits and minimise the harm. Wherever possible, more time and effort need to be devoted to supporting the development of integrated plans, whether city-wide, district- wide or nation-wide, and then to ensure that all interventions, whether government-led or not, are part of the plan and not just ad-hoc. More in-depth and critical analysis that considers who wins and who loses with a given intervention may contribute to reducing unsafe situations for some groups (particularly the most vulnerable or marginalised) and could potentially highlight a better option.

If we are truly talking about sustainable development goals, then identifying who/what benefits or is negatively impacted should include environmental and social dimensions as well (e.g. protecting ecosystem integrity, guaranteeing safety for women to access at night, etc.). We need to remember that

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[6] Improved with FSM (Faecal Sludge Management)

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CHALLENGE: COUNTRY LEVEL

As Rose Osinde Alabaster highlighted at country level, drawing linkages between different goals and pursuing a multi-purpose indicator approach means: scrutiny of policies, mandates, coordinating roles and responsibilities of different sectors, explicit budget allocations to public and school sanitation, further profiling sanitation, developing holistic programming, and reviewing guidelines, among others. This is going to call for a lot of unified action not only from government sectors but also from partners in the way programming for sanitation is done. How the national planning for the actual realisation of sustainable sanitation in Target 6.2., is to be achieved is something that has not yet been discussed.

Integrated Indicators

Participants agreed that the links between sustainable sanitation and the fulfilment of other SDGS should be stressed. However, whether this should result in integrated indicators is debated. As Martin Gambrill wrote, "it would seem too complicated to me to generate indicators that cut across several SDGs." Instead, he suggested that the linkages with these other SDGs might be better used in situations of advocacy rather than for actual monitoring purposes.

the SDGs themselves are a sort of milepost in the journey towards achieving sustainable sanitation for all, rather than the destination or end-point. Keeping an eye on longer-term goals also reduces the risk of making investments that take us in the wrong direction, participants stressed.

This longer-term vision also has to be kept in mind for sanitation with FSM: Safe sanitation with FSM is fine as long as we leave allowance to progressively upgrade towards sustainable sanitation, one participant stressed. Sustainable sanitation will in turn:

(1)   keep people apart from excreta pathogens,
(2)   safeguard water resources and the environment, and
(3)   enable resource reuse.

The key challenge is how to share this longer-term vision for sanitation and holding this in mind while adopting the SDGs for 2030.

Sanitation in the broader SDG context

Linking SDG on sanitation with other SDGs

Discussion participants emphasised that there are important linkages between the realisation of sanitation targets and targets for other SDGs. Equitable access forms one example. Indeed, universal access to adequate and equitable sanitation and hygiene is essential for the achievement of other targets proposed, namely:

- Poverty (1.2.);
- Nutrition (2.2);
- Health (3.2, 3.3, 3.8, 3.9);
- Education (4.1); gender 5.2);
- Infrastructure (9.1);
- Inequalities (10.2);
- Human settlements (11.1).

Thus, the discussion on sanitation has to be broadened, participants agreed. Looking at the SDGs as a whole and not just at sanitation in isolation is essential. Doing so, it becomes apparent that the SDGs aim for a broad definition of sustainability, i.e. addressing health, gender equity, sustainable rural and urban development, sustainable production, improving water quality, conserving natural ecosystems.

Hence, what we really need to be talking about is access to sustainable sanitation, which not only cares for the different user needs but in addition protects natural environments and as far as possible safely recovers natural resources to produce these multiple benefits, e.g. improved nutrition, food security, water security, energy security.

ADVANTAGE: This opportunity can also **potentially attract new sectors and new investments to the sanitation sector**, since it can address a broad sustainable development agenda.

As participants emphasised, this is going to be even more relevant at country level since resource constraints are already a challenge in the WASH sector. Hence, an integrated indicators approach will enable the WASH sector to identify new ways of collaborating to leverage resources and attract new investments to achieve target 6.2.

Financing the SDG on sanitation

Scaling up to achieve universal coverage
Given that target 6.2. aims for universal coverage and ending open defecation, countries will need to go to scale in their sanitation programmes. It means there will be a need for enhanced capacities and additional targeted resources to ensure sustainable investments are made. This includes for wastewater management/safe disposal of effluent, for example, in addition to the provision of adequate sanitation access.

Scaling up efforts, on other hand, are accompanied by a number of challenges:

Do developing countries have the necessary capacities and resources for such scaling up efforts, and are the UN, the donors and other development partners willing to make adjustments in their approach to funding and programming in order to help the country achieve the target?

We need to look more closely at financing mechanisms that enable access for the poor

We need to be aware and work on some major challenges beyond financing (behavioural change, institutional capacity, sustainability).

Global costs of WASH-related targets
Discussing the question of the level of sanitation services, financing different sanitation options was identified as a vital issue. Distinguishing between basic (or adequate) sanitation and safely managed excreta is also critical because of the different cost implications. These different cost implications are also highlighted in a new World Bank report, conducted with JMP that estimates global costs of the WASH-related targets 6.1, 6.2 and 6.3.

In brief, adding safe faecal sludge management will cost three times as much as the cost of having basic (on-site) sanitation, one participant noted. Therefore, the discussion participant expressed doubt whether it will be possible to bring safely managed sanitation for all by 2030. While we can surely meet universal basic sanitation, we should not endanger meeting this goal. Last but not least, meeting the targets is partly a resource (and willingness to pay issue), but it is also about having institutions that set and implement the policies and regulations. In addition, to achieve this is significantly more challenging for safely managed than basic sanitation, she added.

Food for Thought

Although the indicators have not yet been finalized and we still have a little more time, it is vital to ask whether the targets have the correct wording to enable us to include all we want to monitor. National governments might find it useful and important to "unpack" the indicators further through additional disaggregation or the inclusion of additional information. This may not be reported in a global monitoring instrument but will nevertheless find its way into national monitoring frameworks. Much of this could be monitored from community-based sources. Even if a particular indicator does not "make it" to the global list there is nothing to stop a national movement from monitoring it if civil society feels it is useful for national planning, Graham Alabaster stressed.

Transforming Our World

"We resolve, between now and 2030, to end poverty and hunger everywhere; to combat inequalities within and among countries; to build peaceful, just and inclusive societies; to protect human rights and promote gender equality and the empowerment of women and girls; and to ensure the lasting protection of the planet and its natural resources. We resolve also to create conditions for sustainable, inclusive and sustained economic growth, shared prosperity and decent work for all, taking into account different levels of national development and capacities.

[…]

In these Goals and targets, we are setting out a supremely ambitious and transformational vision. We envisage a world free of poverty, hunger, disease and want, where all life can thrive. We envisage a world free of fear and violence. A world with universal literacy. A world with equitable and universal access to quality education at all levels, to health care and social protection, where physical, mental and social well-being are assured. A world where we reaffirm our commitments regarding the human right to safe drinking water and sanitation and where there is improved hygiene; and where food is sufficient, safe, affordable and nutritious. A world where human habitats are safe, resilient and sustainable and where there is universal access to affordable, reliable and sustainable energy."

Source: SDG Outcome Document

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Considering that sanitation was not considered as part of the MDGs until the Johannesburg Summit in 2002, we have come a long way. There is a lot of opportunity to make similar advances over the new few years. Advances both in monitoring tools and data platforms will no doubt be necessary; as will be a more concerted effort to ensure that services are indeed inclusive. This also requires broadening our view from the technical aspects of sanitation to addressing the social and political elements of ensuring access for all. Simple technical solutions will not work by themselves. Those of us working in this sector must build on a more holistic analysis of why people are excluded from water and sanitation and other human rights in different contexts, Rose Osinde Alabaster emphasised.

In many ways, "progressive realisation" is a key term when it comes to the SDGs. It may not be possible to do everything from day one, but we should not allow "perfection" to be the enemy of "good", Eddy Perez wrote. The SDG era will be launched very soon and the indicators and ways of monitoring will certainly improve over time as the sector gains more experience civil society will have an important role to play in advocacy, measurement, and accountability. Strong networks of actors that are engaged in these topics will be important to ensuring that we implement the right solutions in the smartest way possible. Strong civil society partnerships and collaborations will be essential. Furthermore, having forums, such as the SuSanA forum, to discuss, to debate and to question, will help push us forward,

Moving forward, the challenge is to support countries in achieving the SDG sanitation goals and targets. This will include engaging governments and other stakeholders in discussions on topics, such as the difference between safe and basic, moving forward with policy and sector reforms that will be needed to implement strong programmes.

Contributors

The following contributors made one or more posts on the forum (In order of first posting).

NAME OF CONTRIBUTOR	COUNTRY
Rose Osinde Alabaster, WaterLex	Switzerland
Martin Gambrill, World Bank	USA
Joe Turner	UK
Krischan Makowka	Philippines
Graham Alabaster, UN-HABITAT	Switzerland
Louisa Gosling, WaterAid	UK
Eddy Perez, Emory University	USA
Michel Guenard	France
Hanna Woodburn, Global Public Private Partnership for Handwashing	USA
Lucy Stevens, Practical Action	UK
Dorothee Spuhler, seecon	Switzerland
Graham Knight	UK
Frank Wright	Botswana
Tim Brewer, WaterAid	UK
Claudia Wendland, WECF	Germany
Kumi Abeysuriya, University of Technology, Sydney	Australia
Elisabeth von Muench	Germany
Kim Andersson, Stockholm Environment Institute	Sweden
Marijan Zandee, GIZ	Nepal
Hanns-Andre Pitot	Germany
Elisa Dehove, WaterAid	UK
Monirul Hasan, Center for Development	Germany
Research (ZEF)	Germany
Sarah Dickin, Stockholm Environment Institute	Sweden
Guy Hutton, UNICEF	United States
Rick Johnston, JMP/WHO	Switzerland

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Sanitation and hygiene behaviour change programming for scale and sustainability

Thematic Leads: Suvojit Chattopadhyay (Consultant); Poy Dy (Santi Sena); Clara Rudholm (Global Sanitation Fund); Carolien van der Voorden (Global Sanitation Fund); Matilda Jerneck (Global Sanitation Fund)

Introduction

The Water Supply and Sanitation Collaborative Council Community of Practice on Sanitation and Hygiene in Developing Countries (WSSCC CoP) and the global Sustainable Sanitation Alliance (SuSanA) came together in late September 2015 to hold a joint three-week thematic discussion on sanitation and hygiene behaviour change programming and sustainability. It was the first time the two networks had come together to host an online collaborative learning event. Both platforms have over 5,000 members each working in WASH and other related sectors. Hence, this thematic discussion was an opportunity to bring together these two global communities to share learning and to explore links between research and practice on behaviour change.

The discussion was divided into three inter-linked sub-themes to further explore how behaviour change can be better understood and improved to ensure health and WASH outcomes are sustained. Each week was led by specialists in each theme who framed the content for debate and posed structured questions for discussion amongst online participants. The three sub-themes included:

1. **Programming for scale** – week one focused on defining scale for sanitation and hygiene behaviour change (BC) programming, sharing examples of successful scale-up (or the ingredients thereof) and understanding stakeholders' responsibilities and relationships;

2. **Sustainability for behaviour change** – the second week sought to explore the social and behavioural norms and dynamics that influence hygiene practices – specifically, handwashing and the use of sanitation facilities;

3. **Open defecation free (ODF) status and slippage** – the third and final week of the discussion focused on understanding terminology, exploring patterns of slippage and local strategies for preventing or mitigating slippage.

This summary paper brings together key discussion points from across the three sub-themes and captures key reflections on each. The author of this synthesis acted as the thematic discussion coordinator across the two online platforms; she would like to express her gratitude to everyone that shared their time and insights for this exercise.

Programming for scale

Suvojit Chattopadhyay, a consultant focused on monitoring and evaluation, led the first sub-theme by highlighting that the sanitation challenge is a complex and "wicked problem". The key challenge for the WASH sector is to induce lasting behaviour change:

> *"The very nature of careful social engineering required to bring about this behaviour change seems to run contrary to some of the factors that make an intervention scalable – an ability to standardise inputs and break programme components down to easily replicable bits."*

Suvojit called for WASH sector practitioners to: avoid target-driven hardware interventions, which will neither change behaviour, nor create social cohesion but to do construction well, with usable and lasting designs that promote local ownership. Also to learn from effective marketing (social or otherwise) to reach each and every person; recognise that conventional approaches are not working and that there should be a focus on personal and environmental sanitation and hygiene as a whole (not just ensuring that communities are ODF) and also on starting 'at scale' rather than settling for incremental coverage.

Defining 'for scale' in sanitation and hygiene BH programming

As anticipated, there was a good level of debate trying to understand what 'scaling up' means in different contexts for sanitation and hygiene behaviour change; and therefore programming for scale depends on having a clear, coherent and accepted definition – which is not necessarily understood or agreed upon by all. As Elisabeth von Muench said:

"So what is it that we are scaling up? Purely those things that do not require hardware intervention? Actually, everything, even handwashing and stopping [open defecation] OD needs some form of hardware intervention. Therefore, that cannot be it. I thought it's all about hygiene behaviour change (mainly handwashing and not doing OD when you have a toilet) - and not really about getting toilets to the people, right?"

Parallels were drawn to the challenge of defining scale-up in the context of nutrition programmes, Alexis D'Agostino said:
"… there didn't seem to be a lot of agreement within our field of what that term really meant. Expanding programming to new geographic areas? Integrating it into a local system? Both? Neither? Something else?"

Participants noted that the challenges in such complementary sectors may provide important lessons that are transferable to scaling up behaviour change programmes.

What does BH programme scale-up mean for WASH practitioners? Expanding? Integrating?
To scale up or replicate interventions on a large scale, sanitation hardware supply and hygiene education (which can lead to behaviour change) require tailored efforts as they probably will not happen at the same pace nor be comprehended together as a health improvement 'package'. This is the primary challenge when considering programming for scale – the different elements of WASH programmes do not scale up in the same way or through the same mechanisms. Plus, scale-up in one dimension may not have a causal relationship with another. For example, Roland Werchota noted that behaviour change at scale alone would not necessarily mean that scale is also reached on access to sanitation.

As Peter Bury highlighted there is a need to distinguish between but also promote integration of sanitation and hygiene (whereby hygiene education can influence behaviours and hygienic practices) and not treat them as separate activities. Similarly, participants noted that hygiene can never be sustained without adequate water – so the focus remains on water quantity too.

"Improvement in health depends therefore more on sanitation once a minimum of clean (utility) water is available." (Quote from Roland Werchota)

Dependent on the context, there has to be some water access integrated with a sanitation service (on-site, shared, and household) and behaviour change to have the impact required. Views on how interventions are sequenced, which stakeholders are involved and who leads the process (community, government, private sector, NGOs) differed among participants who highlighted the different needs in different contexts (e.g. rural, urban, peri-urban, in schools or health centres, post-conflict, internally displaced person camps, etc.).

Access to adequate and equitable sanitation and hygiene for all
This sub-theme was discussed during the same week that the UN General Assembly came together in New York to agree and finally adopt the new Sustainable Development Goals. Of relevance to this discussion is the commitment to target 6.2., which demands an acceleration of pace and practice for sanitation and hygiene:

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By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.

The mandate to achieve access for all has clear implications for programming – it reinforces the need for ensuring equitable and inclusive services as well as products, hygiene education and ongoing support or follow-up over the long term. Similarly, in terms of intended public health impact, Suvojit highlighted:

"…without the inclusion of all households in a community, gains from improved sanitation cannot be realised. Unless all families adopt hygienic sanitation practices, we will not make a dent on the incidence of disease prevalence."

Does this mean scaling up hygienic sanitation practices always means reaching 100 percent of the population? It was agreed that BH cannot happen overnight but is a gradual process that requires ongoing focus and support due to population growth, people forgetting, and the need for repeated education in schools and through media. Access for all surely implies ongoing action to ensure changed hygiene behaviours and practices are sustained.

Ingredients for successful scale-up

In the cases of successful scale-up, were programmes initiated and sustained by governmental or non-governmental actors? What are the key elements of a successful partnership? How can we strengthen national ownership?

There was an example provided of how partnerships and convergent action are central to scaling up – Anand Shekhar shared how the Ministry of Drinking Water and Sanitation, the Government of India and the Global Sanitation Fund have announced the Shillong Declaration on 'Promoting Sustainable Partnerships'. In addition, the process of achieving ODF status in Nadia District in West Bengal (see sabarshouchagar.in for more) required that stakeholders share 'key values' to ensure success at scale. These values include decentralisation, joint planning, co-financing and collective action.

Several people commented on how there is not a one-size-fits-all approach and that there is a need to look beyond the WASH sector more, to integrate efforts with those of others working on livelihoods and other sectors.

Stakeholders' responsibilities and relationships

Participants highlighted that sanitation BH campaigns need to be locally led and sustained by local governmental or collective community resources plus inter-ministry, as well as community, buy-in and coordination. Achieving this is easier said than done. For example, Anand noted that:

"Generally, programmes of development organisations are guided by values which may or may not match and converge with others. Scaling up demands scaling up of core set of values that promote sustainability of benefits."

Given the enormity of the challenge to reach scale there is a recognition that one organisation or stakeholder group cannot do everything needed to reach wider scale alone. Unless all parties have an agreed, defined understanding of what it is they are trying to achieve together, it is unlikely they will achieve their goals. The hype and rhetoric of partnership so often conceals the difficult realities of working with other organisations, especially governments.

Suvojit prompted a debate on the role of public health engineers – their role in the design and execution of services and for budget holding rather than that related to behaviour change software. Lalita Pulavarti provided an example from India:

"… In Orissa the Executive Engineers (of a joint WATSAN department) are still in charge of the sanitation program. However, this does not mean that they are paying attention to structural or

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design issues! It only means they are in charge of the money that flows in through the scheme. Sub-contracting (and the resultant kickbacks), and not giving ownership to the citizens to get the toilet built themselves (due to scale issues/labour issues [skilled masons, etc.] or any other reason) is killing the scheme. Unless this changes under SBM, we will see more of the same in India."

There is also a need to work more with non-traditional partners – such as "anthropologists, sociologists and psychologists" in sanitation programming to understand better the determinants of mass behaviour patterns. Moreover, perhaps they can assist more in raising awareness of the need for sanitation and hygiene amongst people, notably the poorest, who have so many competing priorities for their time and money. Suvojit also noted the prominent role that the private sector can play in the promotion of hygiene and sanitation campaigns and expansion of programmes: "Whether in the form of innovative communication campaigns, or financing through CSR, private sector resources need to be harnessed through mutually fruitful collaborations."

At the end of the week, Suvojit provided readers with his 'six step formula' to a successful sanitation and hygiene campaign:

1. Do not approach communities with a single message (build and use toilets), but with a comprehensive health and hygiene intervention.
2. Instead of being subsidy-averse, be ready to experiment until you get the design right.
3. Play on local power relations.
4. Allow communities to evolve their own norms around individual and collective rights and responsibilities.
5. Do not hurry into scaling up.
6. Perhaps most importantly, be conscientious about quality.

Sustainability for behaviour change

The second week explored the social and behavioural norms and dynamics that influence hygiene practices – specifically, handwashing and the use of sanitation facilities. By way of definition:

"Social norms are socially accepted or agreed values, beliefs, attitudes and behaviours – reflecting what a person considers right and expected behaviour. This is related to how people think others expect them to behave, and what most other people do." (IDS, 2015)

As the previous week focused on understanding what might be required to programme for scale in BH activities, the second week of conversations focused on how BH can be sustained once programmes are in place.

Active consideration of social and behavioural norms

Henrieta Mutsambi, the WASH Manager at the Institute of Water & Sanitation Development (IWSD) prompted the discussion by sharing her knowledge and experiences of behaviour change efforts in Zimbabwe. She highlighted that:

"Health behaviours should be engrained in one's already existing everyday culture. Scaring tactics do not work and people including children do not believe that they will 'die just like that' if they do not use a toilet or wash their hands. BUT why are we pushing for handwashing to happen – to avoid diarrheal and other related communicable diseases."

Henrieta went on to highlight some of the key ways for mainstreaming handwashing and latrine use in existing socio-cultural beliefs and norms. For example: using religious scripture to re-emphasise handwashing with different faith communities; building on traditional beliefs about hygiene (e.g. the Ndebele people in Zimbabwe do not believe in eating in public places where there are no facilities such

as handwashing); experiential learning (show visually how handwashing with or without soap cleans hands differently by using a white towel for hand- drying); and the value of linking hygiene to social status and concepts of dignity and pride which can work in some contexts (although not all). Several contributors noted the value of influencing the young so that hygienic practices become routine behaviour.

Context is key

Understanding the incentives and internal motivations for behaviour change is key to designing behaviour change techniques – such techniques must be tailored to the context. For example, Sam French described WaterAid's experience in West Africa when the organisation was taking what it had learned about CLTS from Bangladesh and tailoring it for different contexts:

"We had to learn a lot about the socio-cultural context and tailor appropriately – we soon learnt that 'shame' did not motivate communities in Nigeria to change their behaviour, but rather positive motivators such as the feeling of dignity and pride."

Nabil Chemaly shared his experience from the GIZ Water Programme in Burundi, where behaviour change interventions were designed to target mainly psychological factors and were tested and assessed in the short term (one month after implementing the intervention) and medium term (6 months after implementing the intervention) to determine scale-up potential. The sanitation behaviour change interventions consisted of a combination of the following initiatives:

- Awareness sessions to households + training for local construction workers + in-kind subsidies up to 50% of the cost of a latrine;
- Awareness sessions to households + training for local construction workers + assistance in household family planning to save enough money for the construction of a latrine;
- Awareness to households through theatre as a means of mass communication + trainings for local construction workers.

Nabil noted that many other activities were undertaken to create an enabling environment for the success of these interventions such as training health promoters to conduct awareness sessions, training pharmacists to produce chlorine, training latrine construction workers and plumbers, building demonstration latrines in pilot areas, etc. The short-term evaluation of sanitation interventions showed many valuable learning points, including that: theatre as a means of mass communication did not have a major impact on access to sanitation and therefore has a limited potential without consistent follow-up; awareness using local agents is an effective technique, but proper follow-up and monitoring from local, provincial and central sanitary authorities is necessary; and, the first awareness sessions to households were more effective than follow-up sessions planned according to the approach proposed.

As noted in week 1, BH is a long-term, slow process that does not happen uniformly – additionally; several contributors noted that the time limits of many local NGO interventions are too short.

Similarly, Franck Flachenberg noted that some programmes "just jump from behaviour change objectives straight to the activities, without giving much thought to why people do what they currently do and what may be preventing them from adopting the hygiene behaviours promoted." Analysis by 3ie showed that:

"Barriers to behaviour change depend on the stage of the project. Many studies assess the health benefits of initial uptake of safe water, hygiene and sanitation technologies and practices. However, few studies consider sustained use. The early project period may be characterised by enthusiasm over the new technology or promotional activities. Although external support ends during the early post-project period, the promotional messages may still be fresh in people's minds. However, influential household members who were sceptical may reassert their domination during this phase. And finally, in the late post-project period stock outs, technology failure or poor maintenance systems can pose a serious threat to sustained adoption."

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The 3ie-supported systematic review also found that:

"... frequent, personal contact with a health promoter over a period of time is associated with long-term behaviour change. The review suggests that personal follow-up in conjunction with other measures like mass media advertisements or group meetings may further increase sustained adoption."

IWSD, GIZ, Concern Worldwide, WaterAid and 3ie contributions all highlighted the value of taking a holistic, multi-pronged approach to increase the potential for BH to be sustained. Where there is information, education, and communication (IEC) provided to communities in various media and practical support to ensure there is an enabling environment, the techniques used appear to have more chance of success and may be better sustained. Hence, using tools that more systematically analyse barriers and drivers towards BH should be planned into programmes from the start, and subsequent BH campaigns should be based on the context.

Behaviour change techniques: examples and challenges

Hygiene promoters – who does what?
Franck Flachenberg shared Concern World wide's approach to hygiene promotion, highlighting that many WASH programmes rely on training hygiene promoters who are usually members of WASH committees that have been set up to manage infrastructure. Franck argued that for sustainability purposes, it would be better to rely on existing local networks, such as community health workers, and that hygiene promotion should be integrated as much as possible within the existing health system rather than setting up parallel systems such as WASH hygiene promoters.

Jihane Rangama agreed, providing an example from Burkina Faso, where hygiene promotion activities are performed by local volunteers (members of local women's associations for example). However, feedback showed that the volunteers' motivation decreased quite quickly, and the results in terms of behaviour change interventions were not as good as expected. Sam French added that cross sector integration is also key to a multi-pronged approach whereby schools, health centres, midwives, etc. all use and reinforce the same messages.

Tom Davis suggested however that the focus on using paid professionals for health promotion is unfounded and referred to research[7] that found that projects using Care Groups had double the adoption of handwashing with soap as projects that did not use Care Groups. Care Groups rely on volunteers. Susan Davis also contributed to this point by highlighting a study that compared CLTS to the Community Health Clubs approach (Whaley and Webster, 2011).

"Whilst both approaches effectively encouraged measures that combat open defecation, only health clubs witnessed a significant increase in the adoption of hand washing. However, CLTS proved more effective in promoting latrine construction, suggesting that the emphasis the CHCs place on hygiene practices such as hand washing needs to be coupled with an even stronger focus on the issue of sanitation brought by CLTS."

Systemising behaviour change
Ways to systematise behaviour change techniques and to understand social norms have been developed. One such system was shared by Professor Hans-Joachim Mosler from Eawag – the "RANAS" framework that seeks to provide a process for systematically mapping potential behavioural determinants (based on human psychology) and then linking them practically to specific behaviour change technologies. With such frameworks, practitioners are able to develop a tailored, context-

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[7] George et al, 2015 Evaluation of the effectiveness of care groups in expanding population coverage of Key child survival interventions and reducing under-5 mortality: a comparative analysis using the lives saved tool (LiST), John Hopkins Bloomberg School of Public Health, USA. Available at: http://www.biomedcentral.com/1471-2458/15/835

specific approach. Tom Davis also referred readers to the different determinants found for the 18 Barrier Analysis studies on handwashing with soap shown on the Food Security and Nutrition Network's Behaviour Bank.

Designing approaches

Professor Mosler also pointed out that designing context-specific approaches could be better done by engaging with creative agencies – who would also have to understand the context and audience – which is an approach that many private sector organisations use for behaviour change. It was noted that the WASH sector could do more to better understand and learn from the private sector about their experiences and expertise on the basic mechanisms or structures behind the design of large-scale behaviour change media campaigns. This is to ensure these design principles are coherently addressed in the design of WASH programmes and complement whatever is happening on the ground on personal health education and follow-up.

Having a complementary approach (mass media plus local, sufficiently long-term support and follow-up) can clearly reap rewards (as noted above). Yet, how is this systematically planned for and delivered in a project or programme cycle? Hygiene behaviour change rarely seems to be elevated to this systematic planning status in WASH programmes – despite the recognition of its importance. It also requires us to work in partnership with others that we may not usually engage with (as highlighted earlier).

Monitoring behaviour change

In terms of monitoring and evaluating BH, Franck also highlighted that "a robust M&E system is associated to each new campaign so as to be in position to assess its results in terms of effective behaviour change (and not just improvement in knowledge)."

Takudzwa Noel Mushamba highlighted that the "absence of cases or low prevalence of water and sanitation diseases is not necessarily and indicator of 'improved behaviour'". He drew attention to the epidemiologic triangle, which shows the linkages between the agent of disease, the host and the environment noting that:

> *"We are more a product of the environment than what people tell us. The same message means different things to two people. To one it means open the tap and a hand sanitizer and to another it means buy extra soap, travel to a borehole 8 km away and get an extra bucket of water and wash before you eat. Infrastructure plays a huge role not only in reducing exposure but also in fostering new behaviour."*

Finally, Hanna Woodburn[8] from The Public-Private Partnership for Handwashing (PPPH) noted that during UN discussions on the adoption of the SDGs "*when behaviour change was mentioned as being key to achieving these goals responses were often abstract*".

So monitoring efforts also need to be multi-faceted, holistic and able to change along with contextual changes and the stages of particular programmes.

ODF and slippage

In the third and final week of discussions, the conversation moved on to address what happens when changed behaviours 'slip back' or where BH programmes may require extra support.
Colleagues from the Global Sanitation Fund (GSF) that led the week highlighted the following:

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[8] Hanna also drew participants attention to the PPPH Handwashing Behaviour Change Think Tank event held at AfricaSan4 in Dakar, Senegal, which looked at three big ideas in hygiene behaviour change: emotional motivators, behavioural settings, and the science of habit.

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"Large-scale behaviour change oriented sanitation programmes often focus on supporting communities to achieve open defecation free (ODF) status, criteria for which are locally defined but often include a complete stop of people defecating in the open, access to basic but fly-proof latrines for all community members, and presence of handwashing stations with water and soap or ash close to the latrines. As these programmes mature and when the challenge shifts from bringing communities to ODF to sustaining their ODF status, many are confronted with the issue of slippage – a return to previous unhygienic behaviours or an inability of some or all community members to continue to meet all ODF criteria. However, there is a lack of clarity (or at least acceptable/universal definitions) of what slippage actually is and there is no panacea for how to come to terms with slippage, which is dynamic and context specific. What we do know is that slippage is an expected aspect of sanitation interventions, especially those at scale, and NOT a sign of a failure thereof."

ODF and slippage definitions

Two relevant comments were made in connection to GSF's definition of ODF and slippage. Kimberly McLeod agreed with the three main principles for recognizing an ODF village and reinforced that the "*presence of handwashing stations with water and soap or ash close to the latrines*" should go further and state that villagers must also be "*washing hands properly at critical times.*" Akhilesh Gautam also reflected on what period could be considered for having achieved ODF status as a "stable – sustained use" of a toilet before being construed as 'slippage'. Akhilesh noted that in his field experience in India:

"In many villages the "stable" period of sustained behaviour of toilet use was never achieved in the first place and therefore calling it slippage is erroneous and has different implications for strategy course correction in the sanitation programming."

Patterns of slippage

"Sanitation and hygiene behaviour change is a non-linear process that might look like this: a community is triggered, endeavours to reach ODF, is declared ODF, and slips back repeatedly (due to various individual/collective and internal/external factors) to non-ODF status followed by interventions to regain ODF status. A common trend seems to be that the more often interventions are repeated and follow-up support is provided, the less dramatic the slippage will be until eventually a level of maturity is met and behaviours 'stick'." (GSF colleagues)

In terms of ODF slippage experienced in different programmes around the world, there was an interesting selection of reasons for and patterns of slippage – some of which were external influencing factors (e.g. socio-cultural, environmental, financial and political aspects) and some which sanitation and hygiene professionals may have more control over (e.g. poorly designed programmes or programmatic limitations). The following bullet points summarize the key ODF slippage factors shared by colleagues on both discussion platforms:

➢ Socio-cultural aspects – communal conflict; IDPs' needs and impact on available local facilities; vulnerable people unable to meet ODF which impacts on all community; lack of peer pressure from certified ODF communities to their colleagues;
➢ Environmental aspects – seasonal or other flooding (leading to loss of latrines, fewer possibilities for follow up by facilitators); too much rain so less ash for hand cleaning and cleaning latrines;
➢ Financial / economic aspects – affordability of suitable hardware by the urban poor; poor management of funds for BH and related follow up;
➢ Political aspects – "Unhealthy competition between local governments to meet central government targets, at all (non-financial) cost";
➢ Programmatic limitations –
  • Poor or weak community-led total sanitation (CLTS) triggering facilitation;
  • Unclear messaging on hygiene and poor delivery of messages, e.g. people openly defecate outside their community for convenience indicating that the message is not fully understood,

that there's a lack of awareness and motivation, or that the message has not been passed on to the entire family / household and low levels of actual and engrained behaviour change due to low quality implementation;

- Hasty and low quality building of facilities that do not meet national standards and where there is no post-construction maintenance / repairs provision; unequal or inconsistent supply of hardware facilities to meet demand or unsuitable, inappropriate sanitation facility for the context;
- Lack of sufficient and / or well-funded follow-up, e.g. support structures, maintenance / repair options, by government, environmental health staff or natural leaders, etc.;
- Lack of sufficient engagement of the municipality.

Carolien van der Voorden shared learning from Madagascar that indicated that sanitation and hygiene practitioners must accept slippage as inevitable and respond with tools and approaches to keep encouraging behaviour change. Indeed, much like water supply and access to latrines, ODF and related hygiene behaviour change must be regarded as an 'ongoing service' and not just a one-off, supply-led event or intervention.

Again, roles and responsibilities of key stakeholders need clarification to support and manage ODF status. For example, Joséa Ratsirarson highlighted the role that WASH practitioners can realistically play in supporting ODF:

> "Once identified, facilitators should help the community to find its own solution rather than bringing external solutions to them. We, as external to the community, cannot just solve nor have all the solutions. The problem comes from within the community and therefore the solution should be community-led, our role is to facilitate the process of finding these internal solutions."

Kamal Kar and team at the CLTS Foundation provided a case study (abridged) on Kalyani Municipality in West Bengal, which was declared the first ODF urban town in India in 2009. As part of a DFID funded project, a pilot was undertaken in five slums in Kalyani in 2006 at the time when OD was rampant in these slum communities and free distributed toilets remained abandoned everywhere. Unlike rural CLTS, the intervention began at the municipal council level involving the Chairman and Ward Councillors belonging to different political parties. Once the need for the involvement of the local community was understood and local power relations/equations were sorted out, community triggering was facilitated. This involved all formal/informal leaders of a particular slum. The municipality was completely involved in the triggering process and post triggering follow up.

Within six months, these five slums were declared ODF. Soon, a spill over effect was seen in other neighbouring slums as well and by 2009, all of the 51 slums in the Municipality were declared ODF. This rapid scaling up was only possible because of the collective action that was generated within the communities and the natural leaders who emerged during this process who ensured that all the slums were made ODF. However, the rate of progress of all the slums was not the same because of the varied nature of involvement and commitment of different ward councillors.

After 6 years we saw that the communities have maintained their ODF status and many of them have upgraded their toilets using their own money. It is important to note the key facilitating role that the Municipality played in this entire change process. During the triggering, they allowed the community to take the lead and made sure that the messages for collective hygiene behaviour was sustained through the Honorary Health Workers (HHW) who belonged to the community in the follow up stages. Kalyani is a clear example that for comprehensive sanitation planning and implementation in urban/peri-urban areas, the full participation and engagement of all stakeholders, particularly the local community members at all stages of planning and services delivery is essential.

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Local strategies for preventing or mitigating slippage

Several interesting local solutions were suggested by Nanpet Chuktu from his experiences in Nigeria – all of which relate to consistent and clear follow-up activities to maintain changes. His suggestions included:

➢ **WASH Clinics** – which bring together a group of villages (20-30) that have a common heritage of administrative affinity. An appraisal of the performances of the communities is made and those performing well are praised;

➢ **Local Task Group on Sanitation** – for example, a locally based group of senior staff of the Local Government Authority, religious leaders and traditional leaders. They have been trained on the National ODF verification protocol and the criteria expected. Their role is to conduct monthly verification of ODF communities and have been used to advocate to 'stubborn' or lagging communities;

➢ **WASHCOMS** – when a community becomes ODF, they are supported to form a WASH committee (at least 6 men and 6 women). These become the vanguards in their respective communities to sustain the ODF status. These WASHCOMS now seek to ensure that households are supported to have latrines that meet the ODF criteria, help the aged and widows who otherwise cannot build one for themselves.

Dennis Alioni discussed a local strategy used by the Water and Sanitation Program in Uganda, which included CLTS triggering as part of a wider, holistic initiative that seeks to improve the enabling environment too (e.g. by introducing entrepreneurs and financial institutions into the mix "*to provide services and access to finance for improved facilities*"). This was accompanied by demand creation activities.

Joséa provided an example from Madagascar about 'living by an ODF spirit' – which occurred when good facilitation and effective support to generate a deep understanding of the benefits of ODF status led to a community in Boeny Region being able to rebuild their latrines (on their own) after a powerful cyclone.

Slippage critical threshold – impacts and monitoring

Matilda Jerneck and colleagues at the GSF asked whether there is a critical threshold for when slippage has an impact on the social or health status of the community and how slippage, as a dynamic process, can be monitored. Several contributors noted that some types of slippage are "*more critical than others depending on the context*".

As regards how slippage can be monitored, there was agreement that ways of monitoring do need to change due to the dynamic process of slippage and changed behaviours. There is a need to be interrogative and analytical to understand why slippage has happened in order to inform the next steps. Moreover, not all indicators of measuring ODF status are 'equal' – they also must be understood within the local context and responses must be tailored accordingly. Kimberly suggested that:

"There is a strong need to develop a robust evaluation system in order to maintain the status of an ODF village. In addition to sustaining the everyday routine of an ODF village, one must evaluate the village to determine where the issues are occurring or even where they are excelling. […] We propose to ask more direct questions such as 'Why is this village failing?', 'Where is the village failing', and 'What is the frequency of failure'. This way, we can better pinpoint the next steps of how to get the village back to ODF.

Concluding comments

Overall, the comments made indicated that there is still a lot to learn about how to plan for at scale BH programmes that effectively link to local social and behavioural norms and inform BH techniques in

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different contexts. The discussion provided an opportunity to share some recent and relevant lessons learned from participants' different experiences and programmes. In terms of integrating learning to improve interventions, both Kimberly and Kamal implied that there is a need to continue 'learning by doing'.

Contributors

NAME OF CONTRIBUTOR	COUNTRY OF REGISTRATION
Suvojit Chattopadhyay, consultant focused on monitoring and evaluation	India
Anand Shekhar, Global Sanitation Fund	India
Kitchinme Bawa, WSSCC	Middle/Northern & Western Africa
Peter J. Bury, Consultant	Italy
Alexis D'Agostino, John Snow Research and Training Institute	United States
Roland Werchota, GIZ	Kenya
Aisha Hamza, Sanihyg education initiative (SAHEI)	Nigeria
Anwer Sahooly, GIZ	Yemen
Lalita Pulavarti, Protects at Public Affairs Foundation	India
Godwin Kamtukule, WASH Specialist and Consultant	Malawi
Hitesh Chakravorty	India
Henrieta Mutsambi, Institute of Water & Sanitation Development	Zimbabwe
Nabil Chemaly, GIZ	Burundi
Franck Flachenberg, Environmental Health Technical Advisor	Ireland
Chhabi Goudel	Nepal
Samantha French	United Kingdom
Jihane Rangama, GIZ	France
Hanna Woodburn, The Global Public-Private Partnership for Handwashing	United States
Edith Kamundi	Australia
Prof Hans-Joachim Mosler, Eawag	Germany
Takudzwa Noel Mushamba	Myanmar
Tom Davis, Feed the Children	Switzerland
Susan Davis, Improve International	United States
Nivedita Mahotra, Urban Management Centre (UMC)	India
Tracey Keatman, Partnerships in Practice	United Kingdom
Matilda Jerneck, Global Sanitation Fund	Switzerland
Carolien van der Voorden, Global Sanitation Fund	Switzerland
Clara Rudholm, Global Sanitation Fund	Switzerland
Kimberly McLeod, Medical Care Development International	United States
Akhilesh Gautam, GIZ	India
Nanpet Chuktu, Concern Universal	Nigeria
Jonathan Ekhator, Concern Universal	Nigeria
Vincent Ouma, AMREF Health Africa	Kenya
Marijn Zandee, GIZ	Nepal
Aditya Soni, Urban Management Centre	India
Orlando Hernandez, USAID-funded WASHplus Project	United States
Tobias Omufwoko, WSSCC National Coordinator	Kenya
Dennis Alioni	Uganda
Joséa Ratsirarson, Medical Care Development International	Madagascar
Pandit Thakur	Nepal
Kamal Kar and team, CLTS Foundation	India
Ministry of Health, UNICEF and WSSCC/GSF	Benin
Renuka Bery, WASHplus Project	

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Linking WASH & Nutrition – A Roadmap towards Better Health

Thematic Leads: Rachel Lozano (ACF); Johannes Rück (GTO); Theresa Jeremias (CARE); Claire Gaillardou (ACF); Dan Jones (WaterAid); Megan Wilson-Jones (WaterAid)

Linking water, sanitation, hygiene (WASH) and nutrition has gained momentum globally. National policies and development partners' strategies in numerous countries already acknowledge the importance of adequate WASH for achieving good nutrition outcomes, and call for WASH interventions to be scaled up alongside and within nutrition actions. More broadly, achieving the Sustainable Development Goals will require better sector collaboration.

The Bonn WASH Nutrition Forum 2015 has given the dynamic yet another push. Initiated by the German WASH Network, a variety of stakeholders from academic institutions, government, members of international networks such as Scaling-Up Nutrition (SUN) Movement and Sanitation and Water for All (SWA) Partnership and non-government organisations (NGOs) across both sectors engaged in discussions during "mirror sessions" in order to identify better sector collaboration for the first time. The conference became a milestone for a number of national and international developments at the WASH-Nutrition nexus[9].

Recommendations of the Bonn WASH Nutrition Forum

1. Create further evidence on the impact of WASH interventions on nutrition
2. Outcomes of development cooperation can be significantly improved when synergies between WASH and nutrition are addressed
3. Using the SDGs to create an umbrella for sector integration
4. Using the global WASH and nutrition platforms for scaling-up
5. Identify quick wins and synergies between WASH and nutrition
6. Effectively changing behaviour is a core focus of both WASH and nutrition

Building on the outcomes of the conference, ACF and GIZ initiated the 7th SuSanA Thematic Discussion "Linking WASH & Nutrition – A Roadmap towards Better Health" (April 2016) to be found here: http://forum.susana.org/component/kunena/243-thematic-discussion-7-linking-wash-and-nutrition-acfgiz-march-2016. Over the course of two weeks, Rachel Lozano (Action Contre la Faim), Johannes Rück (German Toilet Organization), Theresa Jeremias (CARE), Claire Gaillardou (Action Contre La Faim), Dan Jones (WaterAid) and Megan Wilson-Jones (WaterAid) discussed with the SuSanA community and nutritionists.

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1. Understanding the Link – A Thematic Introduction
2. Discussion on Programming and Implementation
3. Discussion on Advocacy and Policy
4. Discussion on Capacity Building
5. Discussion on Research
6. Conclusion
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[9] Full documentation: http://www.susana.org/_resources/documents/default/3-2536-7-1461334480.pdf

1. Understanding the Link – A Thematic Introduction

Undernutrition results from a deficit in in energy intake from macronutrients and/or deficiencies in specific micronutrients. In efforts to fight undernutrition, poor WASH has been identified as one of the major underlying causes. Insufficient food intake, poor or inadequate absorption and use of nutrients, and repeated infectious diseases lead to poor nutritional status: **Stunting** (low height for age) indicates chronic undernutrition, **wasting** (low weight for height) indicates acute undernutrition and underweight (low weight for age) reflects both.
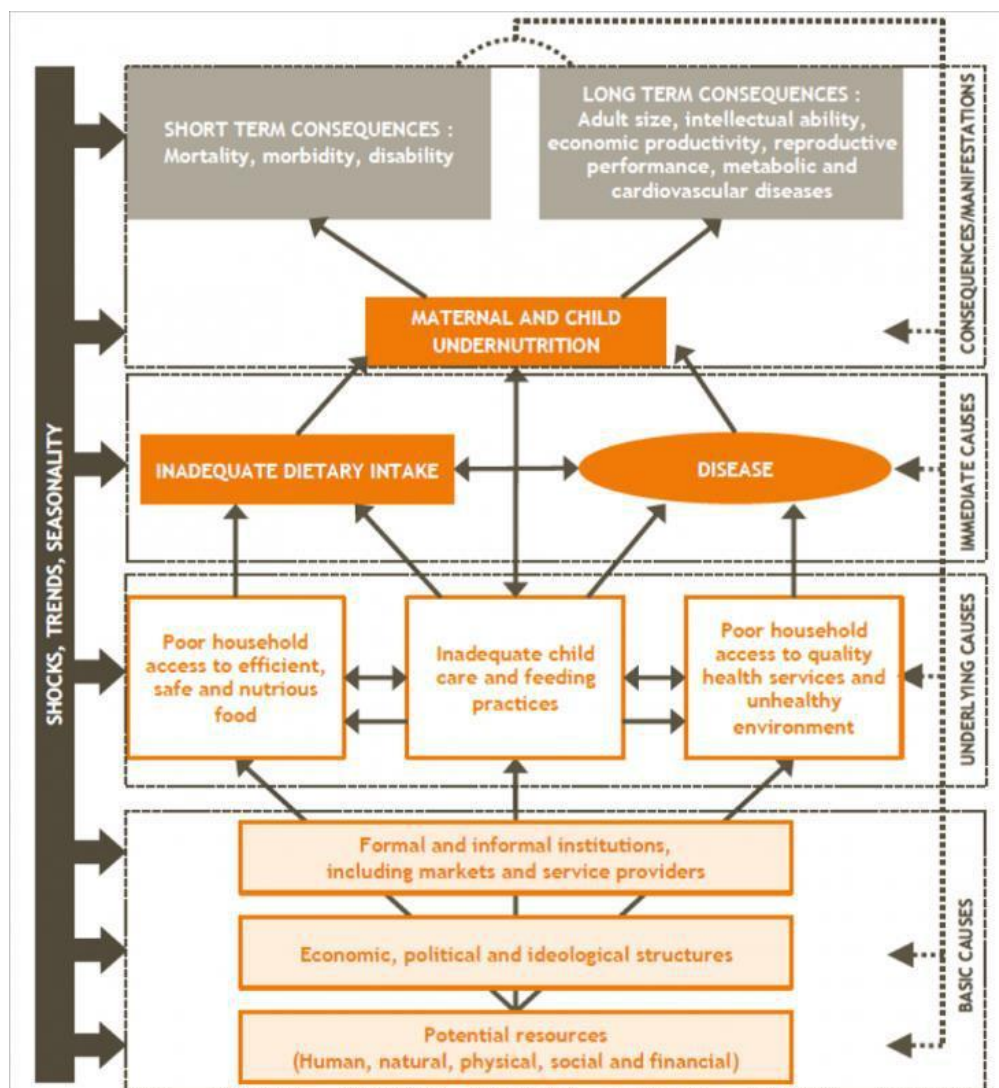
Source: Conceptual framework of undernutrition; ACF (2012) "The Essential: Nutrition and Health" adapted from UNICEF 1990

The WHO reports "undernutrition in all its forms is estimated to contribute to 3.1 million child deaths each year, accounting for 45% of all deaths of children under 5 years of age"[10]. The most critical period in a person's development are the first 1000 days - beginning with conception, through a mother's pregnancy and up until the age of two - when a child is most vulnerable to adverse effects of intestinal diseases and undernutrition. Damage done to child's physical growth, immune system and brain development during this period is usually irreversible. Exposure to faeces is recognised as key threat: The pathways along which pathogens can be transmitted are manifold, reaching from water and soil to

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[10] UNICEF, November 2015, p. 5,
https://www.unicef.org/media/files/IntegratingWASHandNut_WHO_UNICEF_USAID_Nov2015.pdf

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flies and hands. Once brought in contact with food (via fingers, flies, fluids, floor)[11], pathogens can easily affect the intestinal tract. Three common links between WASH and undernutrition are (1) repeated bouts of diarrhoea, leading cause of mortality and morbidity among children under 5 years, (2) intestinal parasitic infections, soil-transmitted helminth infections affect about 2 billons people worldwide[12], and (3) Environmental Enteric Dysfunction (EED), the inflammatory condition of the small intestine that prevents the efficient absorption of nutrients. All three links result from constant exposure to faecal pathogens.

The current understanding of integration strongly depends on the perspective from which it is looked at. Rachel Lozano brought in valuable input from a nutrition perspective. Based on the UNICEF's *Conceptual Framework of Undernutrition*, ACF adapted the diagram that illustrates the direct and indirect causes of undernutrition.

Johannes Rück brings in a slightly different perspective. Influenced by discussions at the Bonn WASH Nutrition Forum, the German Toilet Organization developed two schemes to illustrate the current perception of the link between the WASH and nutrition thematic areas.
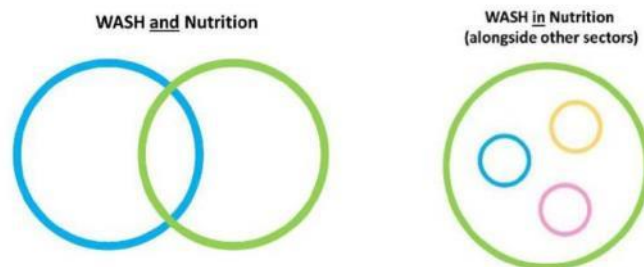
While at first, discussions focused around "sector" integration and overcoming silo thinking, the Bonn Forum as well as further exchange have shown that nutritionists rather consider nutrition as an outcome of multi-sector efforts than a sector in and of itself. This reveals that differences already start with terminology and improving understanding of each other begins with the awareness of a discrepancy in the respective self-perceptions. The two schemes therefore reflect the development of WASH and nutrition perceptions: The first scheme illustrates the two communities as equal sectors. The second scheme gives credit to nutrition being considered an outcome of several related fields of action (education, agriculture, human rights and WASH among others).

Coming up with a general definition of "integration" is difficult as it means different things to different people. "*Integration is best described as a continuum rather than two extremes - for example WASH and nutrition integration can describe both the co-location of services, as well as a programme which is funded and delivered by WASH and nutrition stakeholders with joint activities and joint indicators. There are just different degrees of integration, and it is about understanding practically how the two sectors can better work together, coordinate and collaborate at the different levels and touch points.*" (Megan Wilson-Jones) Irrespective of the term that is used (integration, collaboration, linking, bridging, etc.), she underlines the importance of both areas sharing a common vision and being aware of synergy effects and achieve better results. ACF India developed a traffic light system to illustrate the different degrees of integration:

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[11] F-Diagram: http://www.wateraid.org/policy-practice-and-advocacy/health
[12] WHO, March 2016: http://www.who.int/mediacentre/factsheets/fs366/en/

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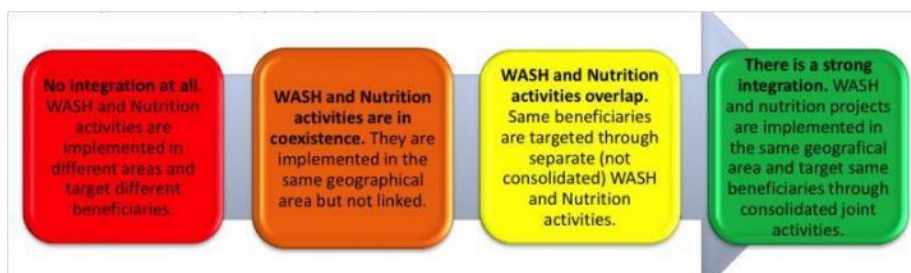
Renuka Bery (WASHplus) underlines that projects can be designed from the scratch in an integrated manner, but in order to improve impact, it often helps to adapt existing interventions and make them more sensitive to the other respectively: "(…) *we encourage programs to be 'opportunistic'… find ways to integrate wherever possible even if it is not the ideal.*" (Renuka Bery)

Even in 1990, the *Conceptual Framework of Undernutrition* from UNICEF, as well as in 1992 at the first International Conference on Nutrition, the inter-relation between poor WASH and undernutrition were demonstrated and addressed. Since then, the contexts and demands have changed. So what is new? Theresa Jeremias identifies three key elements that currently flank the discussion on the WASH & Nutrition link:

1) SDGs: Post 2015, after the MDGs, SDGs apply to all countries around the world, and are more comprehensive and focus on multi-sectoral approaches.
2) Increasing evidence: New pathways of pathogens are explored; research about WASH and stunting as well as about environmental enteric dysfunction (EED) expands.
3) Multi-sectoral strategies, technical papers and lessons learnt are available. Multilateral organisations, global networks foster integration and share experiences and national governments consider both WASH and nutrition.

Nutrition-specific interventions

- Interventions or programmes that address the immediate determinants of fetal and child nutrition and development—adequate food and nutrient intake, feeding, caregiving and parenting practices, and low burden of infectious diseases
- Examples: adolescent, preconception, and maternal health and nutrition; maternal dietary or micronutrient supplementation; promotion of optimum breastfeeding; complementary feeding and responsive feeding practices and stimulation; dietary supplementation; diversification and micronutrient supplementation or fortification for children; treatment of severe acute malnutrition; disease prevention and management; nutrition in emergencies

Nutrition-sensitive interventions

- Interventions or programmes that address the underlying determinants of fatal and child nutrition and development —food security; adequate caregiving resources at the maternal, household and community levels; and access to health services and a safe and hygienic environment —and incorporate specific nutrition goals and actions
- Nutrition-sensitive programmes can serve as delivery platforms for nutrition-specific interventions, potentially increasing their scale, coverage, and effectiveness

- Examples: agriculture and food security; social safety nets; early child development; maternal mental health; women's empowerment; child protection; schooling; water, sanitation, and hygiene; health and family planning services

Source: The Lancet (2013, p. 3)

2. Discussion on Programming and Implementation

Alignment of target groups

Targeting groups with the highest rates of undernutrition and groups that are most vulnerable to undernutrition should be the focus of WASH interventions. The "First 1000 Days" have been identified as an important entry point for increasing the impact of interventions, starting with mothers and adolescent girls. Schools, health care and community centres were mentioned as institutional entry points (Theresa Jeremias).

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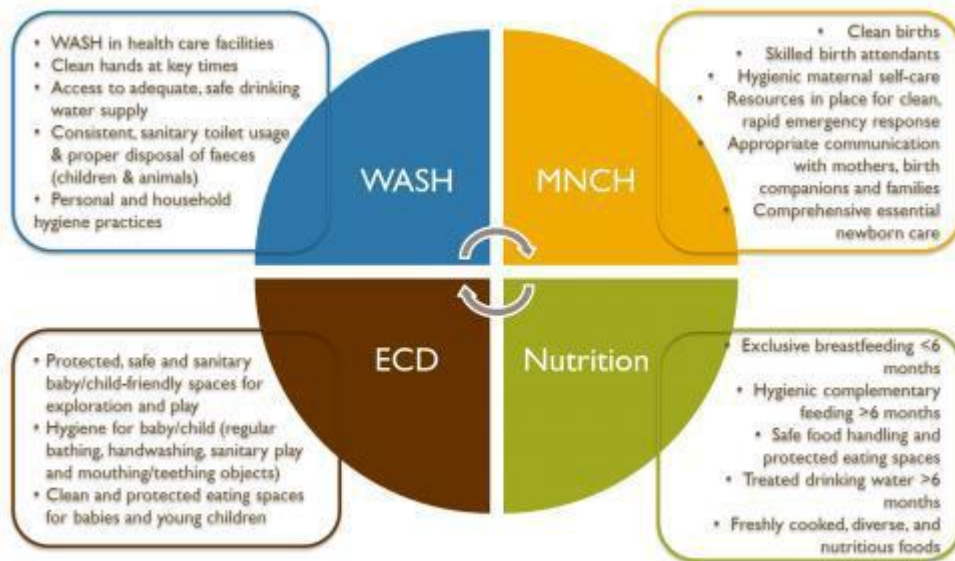
The "First 1000 Days"

MNCH: Maternal, Newborn and Child Health; ECD: Early Childhood Development
Source: www.babywashcoalition.org

The "First 1000 Days" – from the moment of conception until a child's second birthday – is considered the most critical time in a person's life: A child suffering deficiencies during this period may have irreversible effects in its physical and psychological development. Key baby WASH interventions focus around pregnancy, delivery, the first months of life, the onset of complementary feeding, and the onset of a child's mobility[13].

Monitoring & Evaluation and Joint Indicators

Nutrition-sensitive interventions are "*much harder to specify, quantify, measure and account for*" (Frank Flachenberg) than WASH-specific and nutrition-specific interventions. Experience has shown that household surveys particularly WASH-related, are not necessarily congruent with the actual behaviour. In order to ensure realistic evaluation results related to WASH, observation plays an important role in monitoring (Frank Flachenberg).

A number of stakeholders calls for a list if joint indicators (Claire Gaillardou; Cara[14]). A list of potential indicators that focuses on early childhood development was developed by the Global Public-Private Partnership Handwashing (PPPHW) and the Clean, Fed & Nurtured Community of Practice. There are several ways towards joint indicators and monitoring. On the one hand, context specific and joint indicators around health and hygiene considering the envisioned degree of integration. On the other hand, including WASH indicators in nutrition project monitoring and vice-versa as Dan Campbell flags: "*An integrated program should have a monitoring and evaluation framework with corresponding WASH and nutrition indicators. However, when WASH activities are integrated into an existing nutrition program, WASH indicators need to be added to the monitoring framework.*"

Financial Resources

The question of effective funding concerns all stakeholders: Donor structures are commonly set up in a way that they fund a specific field of activity and lack a more holistic perspective. Synergy effects that can result from multi-sectoral approaches are not sufficiently taken into account (e.g. due to a lack of

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[13] See also Thematic Discussion hosted by the Baby WASH Coalition http://forum.susana.org/component/kunena/269-thematic-discussion-11-integrating-sectors-to-address-the-holistic-needs-of-children--how-and-when-to-integrate
[14] Cross-posted from the Emergency Nutrition Network (ENN) discussion forum: http://www.en-net.org/question/2445.aspx

capacity to consider thematic interfaces and strengthen institutional collaboration). Several SUN countries are refining their nutrition expenditures. "*For example, the tracking and analysis of nutrition budgets and expenditures will increasingly highlight WASH investments by national nutrition programmes*" (Sergio Teixeira).

Behaviour Change

Going through countless (unwashed) hands per day, bank notes can be a pathway for pathogens, especially when quickly put between the lips in case both hands are busy (Cécile Laborderie), a practice that can easily be changed. While in WASH, hygiene promotion and behaviour change is one essential component (e.g. hand washing with soap at critical times), nutrition can be included into behaviour change strategies, such as food hygiene and care practices. In the WASHplus Learning Brief, *Small Doable Actions* are presented. It refers to a behaviour change that is easily adaptable and will result in household and public health improvements if practiced correctly (Renuka Bery).

Ownership and Sustainability

In order to guarantee sustainable solutions after the end of a project, it is essential to ensure that ownership for a project lies with the affected community / the beneficiaries. Bottom-up approaches are required and demand needs to be built (Theresa Jeremias). Furthermore, the *"successful establishment and finally reproduction is linked to the interest of the people in it. If having a toilet makes people feel that they reached a higher living standard, they will be willing to maintain it. If dried faeces from UDDT or co-composted faecal sludge become marketable products that farm workers are happy to work with, a demand is created*" (Susanne Wangert).

Alignment of location

Alignment of locations can bring synergy effects. On the very local level, schools can be an entry point for integrated interventions. Terre des hommes has included WASH, nutrition and gardening projects in schools (John Brogan). Midday-meal programmes in schools have also started by other organisations, they can unfold best effects, alongside WASH services, including handwashing facilities and hygiene promotion within the school setting. Community centres for logistics, participation and communication as well as health centres can function as knowledge sharing platforms and entry points for integrated interventions (Roland Frutig, Tofayal).

Enabling Environment

For integrated projects and programmes, an enabling environment is essential. This refers to local and national policies that not only allow, but also encourage multi-sectoral approaches. On the broader level, global frameworks and processes need to provide guidance and flexibility to allow joint working. "*Having a national nutrition policy that recognizes the importance of WASH for nutrition outcomes paves the way for the development of integrated programming at all levels. Donors, governments, and implementers should endorse and support an integrated approach*" (Dan Campbell).

WASH & Nutrition in Emergencies

Linking WASH and nutrition in emergency setting is a particular challenge. Claire Gaillardou introduces the "'WASH in Nut' Strategy" by the "Regional WASH Group, West and Central Africa". Building on experiences from the Sahel region during the nutrition crisis, a strategy was developed that includes a "Minimum WASH in Nut Package", indicators and possible activities (Claire Gaillardou)[15]. How to best bridge humanitarian aid and development interventions is an issue that is discussed in many other contexts as well.

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[15] "WASH in Nut" Strategy: https://www.susana.org/en/knowledge-hub/resources-and-publications/library/details/2480

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Practical examples of WASH-nutrition integration[16]

Where?	Who?	What?
Bangladesh	JADE	Homestead garden for nutrition facility and improve cooking stove
Bangladesh	WASHplus	Fixed handwashing station at the food preparation area (collaboration with nutrition-focused organisations)
Burkina Faso	ACF	Integrated school project (WASH, school gardens and canteen)
Chad	ACF	Household WASH package delivered within Community Management of Acute Malnutrition (CMAM) program
Egypt	JICA	Chicken management and hygiene
Ethiopia		Multi-sectoral platforms for alignment of interventions at local woreda level
India	Govt. of India	Midday meals in schools link to handwashing with soap
India	CDD	Project Nexus - Food Production and Settlement Hygiene in Poor Peri-Urban Regions
Mali	WASHplus	CLTS along with behaviour change activities (handwashing, breastfeeding etc.)
Somalia	SYVGA	IYCF and Nutrition hygiene mobilizations planned
Tanzania	Concern Worldwide	Nutrition baseline survey about variables correlating with stunting
Uganda	WASHplus	Development of material to emphasise food hygiene
Uganda	Welthungerhilfe	Hygiene: Promotion of shelves for storage of dishes to keep them clean instead of storing them on the ground
Zimbabwe	SHINE	EED: Impact pathway comprises the series of processes and behaviours linking implementation of the interventions with child health primary outcomes
Various countries	Concern Worldwide	Environmental hygiene promotion: promotion of play matts for children and animal enclosure
Various countries	WaterAid	Development of an analysis tool for national sector plans and policies (integrated WASH-Nutrition policies): The missing ingredients

3. Discussion on Capacity Development

Target Groups

There is an agreement that capacity building at the WASH-Nutrition nexus is needed for successful and efficient integration at all levels and in all dimensions. In order to do so, target groups need to be identified. This could be implementing staff, government officials from the respective ministries (WASH, Nutrition, Health, Finance…), local authorities, project managers, decision-makers from the donor side, local leaders, staff from multi-lateral organisations, "agents of change" (health workers, teachers…). According to the position and role, appropriate materials need to be developed and methods of knowledge transfer agreed on. Particularly, the training of implementing staff is amongst the demands for improved integration. "*Staff in both sectors need skills and knowledge to effectively implement integrated programs*" (Dan Campbell).

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[16] This table is based on practical examples given by participants of the Thematic Discussion. For further information, please read the full discussion or contact the respective organisation

This also affects the design of surveys: It was asked whether there are "*any existing training workshops to build up our capacities as WASH people or nutrition people*" available for running good surveys integrating both components (Cécile Laborderie). Broadening the understanding of traditional WASH interventions can be one component (Theresa Jeremias). On the one hand, there is a need for the collection of disaggregated data that takes into account both WASH and nutrition data. "*For example, using nutrition data to more accurately identify populations at need of WASH may improve targeting of services to those most in need*" (Megan Wilson-Jones). On the other hand, new technology is available, which can help to ease comprehensive data collection "(…) *we need to apply LiST software to get the correct mix of interventions for investment*" (Martin Mujjabi). Dealing with technology requires also a certain level of IT understanding.

Incentives

The question of incentives is continuously raised in various contexts. It shows the need for creating and using effective incentives, but simultaneously reflects a knowledge gap of what those can look like in practice. "*Cross-country experience-sharing on incentives, that catalyse and sustain inter-sectoral collaboration across Ministries and Departments, will use WASH as case subject*" (Sergio Teixeira). With regard to policy-making, Megan Wilson-Jones pointed out nutrition-sensitive interventions strongly contribute to reduce undernutrition: "*The multiple pathways through which WASH directly and indirectly impact on nutrition has provided a clear rationale for embedding WASH components into nutrition policies and plans.*

(…) *the incentives for the nutrition sector to include WASH interventions in efforts to tackle undernutrition are stronger now than ever.*" (Megan Wilson-Jones) Sometimes not as clear, but equally important are incentives to make WASH interventions more nutrition-sensitive. With regard to financial resources, integration can leverage investments across two thematic areas to maximise impact and improve cost-effectiveness. Contributing to sustained behaviour change by delivering joint messages on nutrition and hygiene is yet another incentive that takes sustainability (beyond project duration) into account.

Tools

A number of tools and materials are already available or are in the making. This includes the report developed by WaterAid "The Missing Ingredients"[17], which analyses national nutrition and WASH plans to show the level of integration. The ACF-ECHO-UNICEF Operational Manual / Guidebook[18] promises to give practical guidance on how to effectively integrate both thematic areas at different phases of the project management cycle, advocacy and more. It is also going to provide an overview of existing training material. A list of joint indicators was also shared by Bijan Manavizadeh.

4. Discussion on Advocacy and Policy

Advocating for integration is multifaceted and complex. It comprises of collaboration in new partnerships, taking influence at local, national, regional and global level and take advantage of "moments" such as conferences, publications, processes. The role of advocacy is also to create new processes, events and showcase success. The global platforms like SUN and SWA can help to give directions.

During the course of the discussion, two main target groups are identified that is (a) the public / community and (b) policy-makers. Specific and targeted approaches and messages are needed in order

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[17] The Missing Ingredients Report:
https://washmatters.wateraid.org/sites/g/files/jkxoof256/files/missing_ingredients_report_wateraid.pdf
[18] WASH'Nutrition - A Practical Guidebook.
https://www.actionagainsthunger.org/sites/default/files/publications/2017_ACF_WASH_Nutrition_Guidebook_BD.pdf

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to successfully advocate for greater integration and collaboration. Keeping this in mind helps to frame messages and measures in a way that is easily understood and applicable.

(a) Public / Community

Promoting Food Hygiene

The risk of food contamination and food-borne infectious diseases that can contribute to increased morbidity and mortality, particularly in vulnerable populations needs to be highlighted and thereby the importance of improved hygiene in food preparation and storage (Keiron Audain).

Joint Messages about Care Practices

Key Baby WASH messages are "*safe disposal of human and animal faeces; wash hands with soap after faecal contact and before preparing food, eating food or feeding children; protect children from ingesting soil and animal faeces; freshly prepare children's food or reheat to boiling prior feeding; and give children (after 6 months of exclusive breastfeeding), only drinking water that has been chlorinated*" (Rachel Lozano).

Promoting Animal Hygiene

Promoting separate areas for children and animals in order to prevent children to get in close contact with animal faeces can help to reduce contamination. Examples are the promotion of playpens for children or fenced areas for animals (especially chicken).

Sending the Message

Integrated messages for the public and communities can be placed in awareness-raising programmes, behaviour change trainings and events (Dan Jones).

(b) Policy-Makers

Sustainable Development Goals

In the new sustainable development agenda, "*'integration' is one of the hottest buzzwords*" (Dan Jones). The multi-sectoral idea of the SDGs goes beyond "Zero Hunger" (SDG 2) and "Clean Water and Sanitation" (SDG 6) as particularly thematic SDGs. In order to achieve the ambitious goals, country governments need to find effective solutions to reach their targets. Synergies from integrated approaches are expected to maximise outcomes.

Emphasizing Economic Impact

"*Emphasising the medium/long-term economic impact of ignoring the synergy of WASH and nutrition by quantifying economic losses (e.g. DALYs and other productivity measures) can help to put a face to the magnitude of the problem*" (Keiron Audain). The calculation can help to illustrate that investing in the nexus will yield financial returns. A video, produced by Generation Nutrition states that "*for every 1 Euro invested in sanitation, there is a NET gain of 5*". This is because people are healthier and earn more for their families. The World Bank states that undernutrition "*results in productivity losses to individuals estimated at more than 10 percent of lifetime earnings, and gross domestic product (GDP) losses as high as 2 to 3 percent.*"[19] At the same time, it is pointed out that the efforts for linking WASH and Nutrition will need to consider the costs (such as time spent in coordination) and benefits (Johannes Rück).

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[19] Multisectoral Approaches to Improving Nutrition: Water, Sanitation, and Hygiene
http://www.susana.org/_resources/documents/default/3-2441-7-1455266236.pdf (p. 1)

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Lighthouse Examples / Good Practices

"*What we need are exposure hubs, where people and politicians can see how it can be done and what the concepts and costs are*" (Roland Frutig). On the other hand, it was questioned whether "good news stories" would be more convincing for decision-makers than pointing out the gaps. WaterAid developed a tool for analysing national nutrition and WASH plans to their respective degree of integration. Among the analysed countries, Nepal stands out with a well-integrated policy framework.

Building Evidence

The need for evidence (together with examples for good practices) appears repeatedly in the online discussion and beyond. A list of evidence can be found in the SuSanA Factsheet of WG 12.   For bridging the knowledge gap, collaboration with research institutions becomes essential.

Setting Political Priorities

Among the challenges that advocacy specialists face addressing decision-makers, is pointing out the unique selling point for making WASH and nutrition a priority on the political agenda. Ben Hobbs asks why WASH & Nutrition should be more important than other issues. Dan Jones reminds the participants of the discussion that advocacy is not just about raising awareness among decision-makers, but it is much about politics and power. WaterAid's Advocacy Sourcebook[20] explains: "*Whether a particular district gets (a certain service) is often not the result of their need, what policies are in place or how well budgets are planned. Too often, it is down to the whims of a particular politician, who may want to cater to the needs of a particular constituency or influence. Politics is about how actors – individuals, businesses, civil society and others – in a society organise themselves to increase their influence, as they seek to promote or protect particular interests.*"

Building Cooperation, Partnerships and Networks

The strengths of joining hands was pointed out: "*We should work on more such cooperations to work faster and more efficient on all aspects of poverty alleviation and related subjects*" (Roland Frutig). Since the Bonn WASH Nutrition Forum 2015, the two global platforms SWA and SUN have been developing a working relationship, especially around joint advocacy oat the global level (Sergio Teixeira). Other organisations have come together to speak with one voice such as Generation Nutrition (Ben Hobbs, Julie Duval).

Sending the Message
- Events at international conferences (e.g. Bonn WASH Nutrition Forum 2015, Stockholm World Water Week) (Dan Jones)
- Inter-ministerial working groups (Julie Duval)
- Briefs, factsheets, publications, videos (Ben Hobbs)

5. Research

Existing evidence shows the close links between WASH and nutrition and paves the way for action. *"While enough evidence exists to support WASH and nutrition integration, more data is needed to demonstrate how and in which ways specific WASH mechanisms affect nutrition outcomes and determine which implementation modalities are most likely to lead to strong and sustained impact"* (Dan Campbell). Two main gaps in research are:
1. Robust randomized controlled trials (RCTs), which ass to the scientific evidence base on the links between WASH and nutrition (e.g. ways in which WASH contributes to undernutrition)
2. The need for more operational research (e.g. how to better work together in practice, documenting best practices as they develop)

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[20] The Advocacy Sourcebook, WaterAid (2007), p. 12

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WASH benefits undertakes RCTs in rural Bangladesh and Kenya, that will substantially add to the evidence base on WASH and nutrition[21]. Other research institutions with a focus on the link include the London School of Hygiene and Tropical Medicine (LSHTM), the Food Security Center at the University of Hohenheim and the Center for Development Research (ZEF) at the University of Bonn (Germany), the PASTEUR (France). "The Lancet" publishes a series "Maternal and Child Nutrition" that builds on recent findings and raises further questions.

Ongoing research presented in the thematic discussion include
- Terre des hommes did operational research in Bangladesh that showed reduction of acute malnutrition prevalence with integrated interventions (John Brogan).
- Action Contre La Faim undertakes the OUADINUT study, an operational research in Chad, about the benefits of a household WASH packages to community management of acute malnutrition (Mathias Altmann).
- The SHINE trial examines stunting and anaemia as public health problems with reference to Environmental Enteric Dysfunction (Rachel Lozano).

6. Conclusion

The vivid participation in the discussion (49 replies) reflects the interest and the topic being at the pulse of time. The topics discussed ranged from the difficulty of defining integration to how to break silo-thinking, how WASH can prevent undernutrition, the importance of the "First 1000 Days", identifying and filling research gaps, further creation of evidence, costs of integration, common indicators, joint advocacy messages, schools as possible entry points, the need for sustainable funding mechanisms, differences in the development and the emergency context, the new context with the SDGs, possible incentives for integration, obstacles, latest progress and a number of practical examples.

Policy issues such as integrated sector plans, incentives for integration and different implications for the international, regional, national and local level was rather poorly discussed. At the same time, the significant role of integrated policies has been pointed out to be essential. This discrepancy might indicate that thoughts and actions regarding policy issues are still in the beginning stage. WaterAid has taken one big step with the launch of an analysis tool (August 2016) that was announced during the discussion. "The missing ingredients: are policy-makers doing enough on water, sanitation and hygiene to end malnutrition?" which analyses how governments integrate WASH into their national nutrition plans and nutrition-components into their national WASH plans, in 13 countries. A second volume is planned.

Furthermore, capacity building requires more substantial work. So far, training materials and concepts are rare. The ACF-ECHO-UNICEF WASH 'Nutrition Guidebook provides guidance for practitioners. General agreement about the need for workshops and knowledge building and transfer exists at all levels and dimensions. Concrete ideas already began to take shape (e.g. in collaboration with the Federal Foreign Office Germany, the German WASH Network is planning to conduct a WASH & Nutrition capacity building workshop in 2017). All efforts require long-term commitments, from decision-makers as well as from practitioners in order to contribute to sustainable results.

Author of the synthesis document
Jona Toetzke (Consultant)

Reviewer of the synthesis document
- Megan Wilson-Jones (WaterAid)
- Theresa Jeremias (CARE)

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[21] WASH benefits RCTs: www.washbenefits.net/objectives.html

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Private sector engagement in sanitation and hygiene: Exploring roles across the sanitation chain

Thematic Leads: Dr. Amaka Godfrey (WEDC); Lillian Mbeki (Consultant); Emily Endres (Results for Development Institute); Dr. Nicola Greene (Consultant); Hung Anh Ta (Asian Institute of Technology); Magdalena Bäuerl (hydrophil); Andreas Knapp (hydrophil); Ken Caplan (Partnerships in Practice)

Introduction

Split into three inter-linked and sequenced sub-themes that explore links between research and practice, the discussion focused on how and under what circumstances local private sector engagement can ensure sustained health and WASH outcomes.

In a paper published in 2010, Schaub-Jones aptly summarises the multiple roles of the private sector and the various sanitation "transactions" as follows:

> Within the overall sanitation market, different sub-markets exist and the linkages between them vary from place to place. Consequently, the diversity of relationships (and sanitation 'transactions' that take place) is impressive. Providers of services range from the masons that build household latrines to the entrepreneurs that build and run toilet blocks, from manual pit-emptiers to privately-run vacuum trucks. Customers for these services are perhaps even more diverse, from pay- and-go users of toilet blocks to property owners letting out accommodation, from homemakers making home improvements to tenants emptying a shared latrine. Most sanitation transactions taking place in this context have little direct involvement of public authorities[22].

With this diverse context in mind and with a view to expanding sanitation markets, reducing negative consequences and harnessing positive externalities, the sub-themes of the online discussion focused in turn on:

- Working with the private sector to **raise demand** through sanitation marketing and financing options including access to household credit, financing for local entrepreneurs or via other means;
- Encouraging, enabling and supporting the private sector to **meet demand** at the household level (product delivery, toilet construction, emptying services, etc.); and
- Fostering the role of the local private sector further along the sanitation chain in transport, disposal and reuse to **responsibly manage waste**.

For each area, key questions revolved around the business models and financing options that hold promise, the role of government and external agencies in enabling and supporting enterprise development, and the design of appropriate regulation for small and medium enterprises.

The summary below blends the discussions online with a sampling of the numerous resources available on the topic. Indeed the focus on sanitation as a business and sanitation entrepreneurs has mushroomed in recent years with numerous organisations (donors, research institutes and think tanks, NGOs, and impact investor / philanthropist foundations, amongst others) exploring the topic. SuSanA Forum and WSSCC Community of Practice readers are very much encouraged to help expand the resource base on the topic using this: bit.ly/2APZSiq.

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[22] Schaub-Jones, D. "Sanitation—Just another Business? The crucial role of sanitation entrepreneurship and the need for outside engagement." Building Partnerships for Development: Aug 2010. (link)

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Raising and Meeting Demand at the Household Level

There is an increasing emphasis in the sanitation sector on determining ways, in which different stakeholder groups can work together more effectively to increase uptake of improved sanitation by poor households. Towards this end, a growing body of work recognises the contribution of the private sector to meeting general goals and objectives for sanitation coverage (and thereby contributing to public health and environmental goals). Working together more systematically and systemically helps different stakeholders groups to achieve their goals. Governments and development organizations benefit from making their investments and interventions in sanitation go further by leveraging the strengths of the private sector to reach more people more sustainably. In many ways, business owners acting in the sanitation market have goals and interests that align with those working to end open defecation or to move households up the sanitation ladder. Sanitation entrepreneurs seek to increase their customer base and sell more products or services. To make their businesses work, such entrepreneurs may potentially benefit from financing opportunities, marketing and sales support, and direct or indirect capacity building opportunities.

However, there are also misalignments in the goals of private sector actors and governments or development organizations. For example, some entrepreneurs may meet their profit goals by reaching fewer people with a higher profit margin product. This business model, however, does not necessarily help governments or development organizations to reach the greatest number of people with sanitation products and services, including poor and vulnerable populations. Furthermore, populations that live in remote areas may be target

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populations for governments and development organizations, but would not be target customers for businesses. The cost of delivering products and services to hard-to-reach areas would outweigh the potential revenue small businesses might earn from in those communities.

Whilst various agencies are trying to determine how best to support the sector, some development approaches (like subsidy schemes) may directly interfere with the longer-term viability of private businesses or at least skew the market. In addition, informal sanitation entrepreneurs may be hesitant to collaborate with governments because of prohibitive registration requirements or because of perceived regulatory or other threats to the way that they do or intend to do business.

These issues, amongst others, point to some of the challenges in working with the private sector to achieve development goals around raising and meeting demand at the household level. That said, significant experimentation is going on that emphasises the private sector's potential contribution along various segments of the sanitation chain and across a wide range of demographic contexts. Efforts to support and consolidate this learning is much needed.

Sanitation Marketing

Sanitation and hygiene interventions have the objective of ending open defecation and enabling access to and ensuring ongoing safe sanitation practices by households with the ultimate goal of improving health as well as dignity and other social goals. Reflected in the SDGs, Target 6.2 aims to "achieve access to adequate and equitable sanitation and hygiene for all by 2030." To encourage the adoption of improved and hygienic latrines, a range of slightly varying approaches (Community Approaches to Total Sanitation (CATS), Sanitation Marketing, and Community Led Total Sanitation, amongst others) have emerged that seek to foster demand and encourage appropriate responses from providers in terms of supplying households with options. Applicable largely to both rural and urban settings, these all introduce a behaviour change communication component.

With regard to the topic at hand, Sanitation Marketing in particular introduces an explicit commercial component aimed at businesses. Such interventions seek to encourage businesses to develop the right products and services that are easily accessible to households at affordable price points. Sanitation marketing therefore requires strong partnerships and coordination of various government departments and development partners to enable or catalyse a response from entrepreneurs and financiers with (a more aggregated) demand from households/consumers at the centre[23]. Such partnerships also have a function in protecting consumers through raising awareness. Not just on the need for investments in sanitation, but also, what investments make sense. As Laurence Hamal noted in the forum discussions, users should "be aware of what to look for and how to verify the quality of a product" within the conditions of access to water, local materials, technical guidance on groundwater levels, etc.

As Lillian Mbeki stated, in rural areas, getting to Open Defecation Free (ODF) status involves "creating a community movement to get everyone to adopt a new social norm [through CLTS]... Sanitation marketing is therefore an important element in building on gains made through CLTS… to provide households with the products, services and knowledge that they need to build improved latrines and sustain the behaviour." That said, Nicholas Morand noted that when settlements are dispersed, households do not place much of a priority on a proper sanitation facility. In response, Amaka Godfrey concluded that if sanitation marketing is to facilitate the sustainable toilet use amongst households, it might require a complete rethink on the type of toilet that they will then be attracted to pay for. For this, supportive and consistent technical and financial assistance from development partners or national initiatives is required.

Behaviour Change

Looking at viable means of promoting and achieving behaviour change, Elisabeth von Muench suggested that we need to understand the nature of demand or the household aspiration more clearly. This would lead to more targeted product or service delivery offers that take into account, for example, whether households are keen to invest in a toilet in the home or whether a pit latrine away from the house is acceptable. Referring to a forum held by the London School of Hygiene and Tropical Medicine (LSHTM) on "creativity in behaviour change"[24], Von Muench goes further to suggest that the sanitation sector needs to be reaching out more effectively to other sectors that have a behaviour change aspect or requirement. A wealth of material is available that the sanitation sector needs to be mining in order to determine appropriate designs of interventions aimed at behaviour change.

The private sector can play a useful (and creative) role in innovating around the delivery of messages. Such innovations could include the use of a variety of non-traditional marketing mechanisms, like

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[23] Please refer to the http://www.sanitationmarketing.com website for a range of useful resources on sanitation marketing from theory to practice. UNICEF's Sanitation Marketing Learning Series are particularly helpful.
[24] http://ehg.lshtm.ac.uk/2015/09/25/creativity-in-behaviour-change/

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subliminal messaging in television programs to foster demand, as noted by Krischan Makowka. At the end of the day, as noted in WSP's *Tapping the Market*[25]:

> "The drivers of household decisions to stop open defecation are likely to be different from the drivers of household decisions to move up the sanitation ladder. Therefore the strategies used to motivate each decision may have to be different."

Thus, the implications for the design of strategies to achieve behaviour change align with experience in other sectors regarding differentiation of message for specific target groups.

The Role of (Local) Government

Clearly, there are moral, economic, environmental, public health and other reasons to expand sanitation services in poor communities. As it is recognised that it cannot deliver on these objectives on its own, the role of government in enabling the potential contribution of the private sector filtered directly and indirectly throughout all of the online discussions. Going back to basics, Marijn Zandee reminded us that the private sector cannot be expected "to create a market out of nothing" – governments (presumably including the health ministries and the education sector) [and (I)NGOs] need to "create an atmosphere where people feel that their life is not 'complete' without a decent toilet in their house." He further notes that the private sector can then promote different toilet options and technologies that respond to different aspiration levels.

A quick scan of the materials are available. And the presentations made during the LSHTM sessions suggest that success comes from:
1) A clear understanding of the likely "tipping points" for uptake,
2) Nuanced and targeted messaging that recognises that poor households may know more than practitioners think, and thereby
3) A shift is needed from a predominant emphasis on the problem to small or easy steps that can be taken to encourage uptake of sanitation products and services.

If we expect the private sector to respond, as noted by Higu Kefale, then government should take the lead in ensuring that the environment is conducive and regulatory functions appropriate. It should also clearly identify the barriers that need to be overcome for the private sector to get involved. The challenge is getting the balance right among product, provider licensing, price and regulation for both public health and environmental considerations. A paper from Schaub-Jones et al note a similar balancing act to meet the needs of public, private and provider goods[26].

Due to limited technical and staffing capacity, designing and enforcing **government regulation** was acknowledged as difficult in poor communities at the household level but also with regard to small providers. Albeit difficult, government does have an obligation to regulate given the public good [and merit good[27]] functions of water and sanitation services (Morand and Emily Endres).

Given the public health aspects and potential for ground water contamination, Patwary states that public authorities need to ensure that building codes are enforced (particularly for containment). Regulatory authorities might also need to recognize and legalize (or license) new types of vehicles for emptying and transport, and health and safety standards should be clarified to support certification. Zandee suggests, "rules should not only be enforced, but they should also be transparent, consistent and not change every few years." This means effectively doubling the planning horizons of support agencies (from 3 to 6 years) and continuing the move away from projected funding to more programmatic funding.

Government could support enterprises that contribute to poverty eradication with potential tax exemptions or funding support for rural coverage, guidance on distribution mechanisms, and marketing support to enhance uptake. (See sections below specifically on finance.)

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[25] Sy, J., R. Warner and J. Jamieson. *Tapping the Markets: Opportunities for Domestic Investments in Water and Sanitation for the Poor.* The World Bank: 2014. (link)

[26] Schaub-Jones, D., Eales, K. and Tyers, L. (2009) Sanitation Partnerships – Harnessing their potential for urban on-site sanitation. BPD. (Available at www.bpdws.org)

[27] A merit good is one that society thinks that everyone should have access to, like basic education and health care.

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Blending the Profit Motive with Development Goals

Having discussed issues around *raising* demand, Nicola Greene kicked off the discussions on *meeting* household demand by asking how to reach development targets when entrepreneurs may seek to "reach their profit goals by reaching fewer people with a higher margin product". For construction products and services, entrepreneurs are likely to go for the easier to reach customers that can more easily access finance. There are exceptions, as Greene cites, like an emptier in Malawi she knows who claims to cross subsidize poorer customers with profits from wealthier customers. Social goals are not always front and centre for the average business owner however.

As the International Finance Corporation (IFC) notes in Transforming Markets, Increasing Access[28], the private sector is increasingly recognising base of the pyramid (BOP) consumers as a "major untapped market segment". "Beyond the reach of urban sewerage networks, most BOP families require self-funded, household-level sanitation solutions." The IFC's work with the Water and Sanitation Program has sought to clarify the size and characteristics of this market in different contexts. According to recent market research, in Kenya, the "market for latrine slabs alone [was] projected to achieve 1.6 billion Kenyan Shillings (US$19 million) in sales in 2014 [to] reach over 600,000 households." (See IFC's dedicated web page for more information on the topic.)

Thus, as noted by Valentin Post from WASTE, a growing acceptance of sanitation as a viable business should attract more talented people to work in the sector. Thereby bring innovations that foster the achievement of both social and business goals. Indeed, beyond quantifying market demand, work is still needed to help businesses segment and target their business, understand and mitigate possible risks, and link up with other parts of the sanitation chain and the supply chains. Although mindful of the risks of putting off some entrepreneurs through proper regulation and licensing, solid evidence of government interest and support to the sector also reassures private sector initiatives.

Product Development

In terms of product development and meeting customer demand, Denis Alioni notes that this is a crucial stage, related to appropriateness and need. There is no one size fits all and "different areas have various issues such as collapsing soils, water logging etc. … [Thus where a product fits the context,] word of mouth will start the marketing organically" and thus drive demand. As noted by a number of contributors, consistency in product quality through the use of less expensive local materials and efforts to enforce policies and standards have to be adopted. Hamal further notes that a range of designs fitting local conditions is needed. These should consider the level of access to water, availability of local materials, other technical issues and also potential rent increases with the introduction of a household toilet for renters.

Amaka Godfrey reminds us that both products (various types of latrine and slabs) and tools for installation need to be easily transported to both rural and peri-urban households. Otherwise the business models (including for sanitation infrastructure in house construction more generally) will not work due to insufficient demand or without sufficiently concentrated demand (as noted by Solomon Makanga).

Ultimately, particularly for rural areas and in the absence of an active private sector, the key considerations, according to Morand, are around ensuring long term use and maintenance of sanitation facilities, e.g. that households rebuild after the rainy season, and ensuring the quality of the infrastructure whilst allowing for the "do-it-yourself" spirit. Of some concern, Mbeki points to a recent ODF sustainability study carried out by UNICEF in Kenya this year that showed slippage of close to 20% in some areas. Some of the key reasons for reverting to open defecation included latrine collapse, and general

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[28] Pedi, D. and W. Davies. "*Transforming Markets, Increasing Access: Early Lessons on Base-of-the-Pyramid Market Development in Sanitation.*" International Finance Corporation (IFC): October 2013 (link).

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dissatisfaction with the latrine, deemed as too smelly, shaky floor, lack of privacy, etc.[29] In such situations, Morand further notes that the supporting financial mechanisms must be designed with great care lest they create overly dependent (and presumably indebted) communities.

Aaron Ndaa notes that "consistency in quality of sanitation products is likely maintained or sustained where product development systems and processes are monitored through [standard setting and] robust policy enforcement and where violation of product development specifications are encountered, there has to be deterrent provisions in the policy. Sanctions have to be clearly outlined such that accountability is complied with. Governments need to craft policies that support enterprises contributing to poverty eradication." A key challenge as noted by Mbeki is how to support enterprises to go to scale. Another consideration as noted by Emily Endres is around government's dual roles of 1) strengthening informal enterprises, (who may see government regulation (through standard setting, permits, penalties on inadequate services / construction, etc.) as challenging and a disincentive to invest in (formalizing) their business), and 2) protecting the public good and the health of the entire community. Along with discussions with users and communities, this may lead to government roles in influencing or supporting product development.

Business Skills

To make private sector approaches work in the sanitation sector, Post from WASTE notes that small businesses can cut costs by improving technical skills to reduce unnecessary expenses. This includes recognizing the value in using local building materials, like bamboo in many contexts. Standardizing and aggregating demand to allow for bulk purchases also helps the business (presumably, if they have the cash flow to support this). He cites WASTE projects that, for example, have been able to reduce costs in this way by "at least 38% for standard double leach pit systems".

Marijn Zandee (GIZ Technical Advisor in Nepal) notes that, in his experience, "many entrepreneurs are simply good sales people," but that they would benefit from better accounting, data management and other business skills that include reading the market. Like community motivation events, single training events without follow up support to entrepreneurs will ultimately not have that much influence on the market. Endres then picked up on the softer business skills whereby entrepreneurs must have the knack to recognize and seize business opportunities, critical for the long-term success and sustainability of sanitation entrepreneurs. She emphasizes the need to encourage entrepreneurs to focus on customer satisfaction and expanding their customer base (rather than focusing on high margins with a few wealthier customers). With little competition in nascent markets and infrequent service requirements, **small business owners** may not make the connection between poor customer service and unhelpful business outcomes (through a lack of customer retention). Managing the business also requires attracting and retaining skilled workers. She asks what experience has there been in training these softer business skills to entrepreneurs in the sanitation sector.

Reza Patwary of Bangladesh notes that part of this business acumen is being able to offer choices to clients that meet their design and materials requirements depending on budgets available. It also means having a view of the whole market, i.e. understanding the horizontal and vertical integration needs of the sector. The market would benefit from a closer relationship between suppliers (sanitation product sellers) and construction service providers, but also the marketing of sanitation products and the marketing and delivery of sludge emptying and/or transportation services. Numerous organisations have contributed to thinking around joining up the sector in this way.

Whilst a number of contributors focused on business skills, several also highlighted that users / customers should ideally be aware of what to look for and how to verify product quality within the

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[29] See also Tyndale-Biscoe, P., M. Bond and R. Kidd. PLAN International ODF Sustainability Study. PLAN & FH Designs: December 2013.

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conditions of access to water, local materials, technical guidance, etc. This may obviously require a fair bit of support.

Household Finance for Sanitation

Reverting to an earlier discussion, a key starting point for sanitation marketing is in understanding poor households' willingness and ability to pay. Ability to pay and affordability obviously revolve around household income and household priorities combined with the options available. Martin Muchangi from AmRef Kenya helpfully noted that where willingness to pay is high but ability is low, then the focus should be on the product, i.e. ensuring that the product is designed in such a way as to meet the hygiene needs, convenience and affordability of the consumer. Where willingness to pay is low but the ability is high, then the focus should be on the promotion.

Higu Kefale reminds us that willingness to pay requires careful study and relates to a range of contextual factors. These include aspects of access and privacy (i.e. whether we are referring to household, shared or public latrines), understanding of the linkages between sanitation and health, satisfaction with current arrangements, and concerns about safety and security (particularly around girls and women's access)[30]. Interestingly, the Kabarole, Uganda study (see footnote) found that family size could have a significant influence whereby families with numerous children were more likely to invest in sanitation at the household level to avoid the continuous cycle of children passing illness around to each other. Willingness to pay notwithstanding, affordability becomes a key factor for selecting different options for products and services. Thus, the poorest quintiles may undoubtedly seek the lowest cost solution that may, for example, involve mechanical emptying where insufficient income patterns leave poor households with little option but to pay for a partial emptying of full latrines by the bucket.

Experience and formative marketing research has shown that households do not prioritise sanitation financing. A key question was thus around how we structure micro-credit financing to make it attractive for households to take small loans for sanitation. In response, Alioni notes that, "many [households] prefer to pay with cash and not supplier credit or loans. However, rural communities in Uganda specifically accept their local Village Saving Schemes soft loans of 1% interest per month." He goes on to suggest that "provision and marketing of improved sanitation products needs to include a do-it-yourself component because most rural folks build and repair their facilities and will not pay for a mason or entrepreneur to do it for them. We should not forget that the primary role is accelerating achievement of improved sanitation in communities."

Thus, financing policies should be such that interest on loans is predicated on concessionary terms as opposed to the current regime where the prime motive is profiteering. Where interest regimes are high, product developers become apprehensive of taking loans to finance their operations. At household level, savings and loan initiatives should be effectively promoted and linked with financial institutions created to support sanitation funding.

Godfrey reiterates that from previous research and experience in rural Kenya, there is little willingness by households to take up micro-credit for sanitation products, bearing in mind that credit is expensive up to 24% p.a. from some MFIs. Thus accessing credit as a registered community-based organisation (CBO) seems to be a good option, where groups can then purchase products in bulk and distribute to members. This works better when the loan is taken as a 'top-up' to an already existing loan or when the sanitation product is bundled together with other home improvement products, such as water tanks or solar lamps. As Utami said, "taking a purely sanitation loan still remains a very low priority for most consumers."

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[30] Francis, A. "Willingness-To-Pay For Improved Sanitation Among Rural Communities in Kabarole District (Uganda)". Undated but presumed to have been drafted in 2015. Accessed at http://www.statistics.gov.hk/wsc/CPS202-P20-S.pdf on 2 December 2015.

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Although the jury is still out on the uptake and success of these financial products, there is a need for thorough training of borrowers to reduce high rates of default. To elevate buy-in and extensive information dissemination, there is need to embark on wide marketing initiatives using different but responsive media to deliver the messages. Recent efforts by WASTE and AmRef in Busia and Kilifi (Kenya) in partnership with national banks (K-Rep and Family Bank) are attempting to crack this market through a multi-pronged approach of working with households and "natural leaders" in rural communities, building material entrepreneurs, and public health officials who are keen on promoting ODF in their counties.

Godfrey notes "…the challenges are very different in poor urban settlements. The complexity of pit emptying, the increasing urban population and the limited availability of space for continuous construction of pit latrines is shifting the technology of choice to sewer network[31]. The combination of sanitation marketing and micro credit could go a long way in increasing demand and uptake. The major issue is that micro credit for sanitation in urban areas can be potentially high. House owners not only need to build a water-borne toilet, but they also have to pay for connection to the network. Some utilities are beginning to pre-finance both the connection to the sewer network and the installation of [water-borne] toilets. This cost is then spread over several months and collected through the water bills. The main challenge that is common is that the majority of the utilities do not have the capital for this level of pre-financing. Some have started raising the required capital by imposing a sanitation tax, in the form of a percentage on the monthly water bill. Sanitation marketing combined with micro credit or pre-financing can help increase uptake of safe sanitation in urban poor settlements."

Requiring further study as they are contested in terms of their effectiveness, some argue that the widespread use of sanitation subsidies to support poor households in investing in sanitation may in fact distort the market. Subsidies tend to be inappropriately targeted (or easily accessed by the wrong target group), encourage costly designs that may be difficult to rebuild or empty or challenging to source sufficient water to run, or may create false demand leading to hardware that is not used[32]. Complicated to design and often cumbersome to administer, a clear analysis of their potential impacts against their intended objectives is needed to make subsidies effective at the household level.

Finance for Small and Medium Sized Enterprises

Leading on from the discussion at the household level, questions were then raised by Lillian Mbeki about the role of financiers and banks for product developers and installation entrepreneurs. Providing funding to private providers to reach rural households may be where there is greatest need. As noted by Utami Dwipayanti, finance may be needed to cover the high cost of transport particularly to rural areas. Otherwise small businesses are likely to pass these costs on to households. Subsidies, on the other hand can, may be provided in the form of guarantees and subsidised loans to purchase start up equipment for small operators, which may then have the effect of reducing the costs of services to the end user. (Evans et al., pg 18)

Some contributors suggested that tax exemptions should be considered for companies or micro enterprises that promote products and services that expand coverage to poor communities. Capacity building initiatives need to be explored and investments structured such that materials can be widely distributed. Thus, products will become more available at cheaper prices to users. If the market can be aggregated effectively, the product manufacturers and distributors will still realise significant income flows, as huge volumes will be churned out to users. Supporting small entrepreneurs is a difficult balancing act, however. A key consideration around formalising small businesses is whether they will

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[31] See also Satterthwaite, D, D. Mitlin & S. Bartlett. Editorial: Is it possible to reach low-income urban dwellers with good-quality sanitation? In Environment and Urbanization. (IIED: Vol 27- No 1) April 2015. Volumes 1 and 2 both focus on sanitation and drainage in cities and provide a wealth of articles on related topics that will be of interest.

[32] Evans, B., Voorden, C. van der and Peal, A., 2009. *Public funding for sanitation - the many faces of sanitation subsidies: a primer.* Geneva, Switzerland: Water Supply and Sanitation Collaborative Council, WSSCC. (Available at http://www.ircwash.org/sites/default/files/Evans-2009-Public.pdf)

then gravitate towards larger public and commercial sector contracts (again higher margin, fewer customers) and thus reduce their potential contribution to poorer households.

To highlight the financing challenges, Greene provided an example of supporting sanitation businesses in Malawi whilst with Water for People. She notes that access to capital in Malawi is very restrictive with loans even from micro-finance institutions at an interest rate of 40 percent. To overcome this, "Water for People tried to support Gulper businesses by establishing 'lease to buy' schemes where the business owner would get an interest-free loan for the equipment. The business owner would make a deposit on the equipment and was required to prove there would be sufficient safety gear for staff before being considered as eligible. End of month payments were then collected via mobile money to save time and money (though some expressed distrust of the system!) until the cost of the equipment had been repaid."

In the scheme, equipment costs were subsidized. Ordinarily, a Gulper costs around US$300 and the required 20 liter barrels were another US$150, but Water for People required a payback of only the Gulper costs. This system worked well, but Water for People questioned whether financing like this was getting them too involved in the chain. In terms of monthly management, busy NGO staff might forget to collect these monthly payments or may feel reluctant to chase the entrepreneurs for the repayment over the 18-month period. Sanitation Solutions in Uganda do something similar, but they also include a vehicle. They GPS track the vehicle to make sure it is being used for pit emptying. They also require a minimum number of receipts from the treatment plant to show the business is actually emptying latrines and bringing waste to the treatment plant. These receipts are necessary for the terms of the loan to apply.

At the end of the day, Water for People found that transport costs were too high, margins too small and the prospects too risky to attract most investors. Even significant potential market value of removing sludge per week proved too challenging for the mid-sized businesses that Water for People was originally seeking to entice into the sanitation sector. Ultimately fairly unsophisticated but robust and easy to repair technologies, like the Gulper, have proved to be the most viable and attractive investment, purchasing only the technology and six plastic barrels. Water for People found that resilient business owners could cope with fluctuation in demand but they lacked entrepreneurial spirit and any ambition to take risks. Efforts have been underway to overcome some business model challenges that create low profit margins, create "entrepreneurs" out of service providers who are not keen to stay in the sanitation business for long (due largely to public stigma), and support financing efforts to reduce the cost of doing business particularly around transport (seen as one of the biggest challenges by the SPLASH research consortia lead by WEDC)[33],[34].

Although the Water for People experiences provide much food for thought, several contributors noted that national and local authorities can play a role in making entrepreneurs aware of emerging opportunities across the whole chain. Ultimately to meet the needs of low income households, incentives for businesses may need to be put in place with reduced rates of interest or (partial) subsidy schemes for the un-and underserved (as identified and targeted presumably by local government) or businesses should be encouraged to cross subsidize across different client bases. Microfinance and other financial support from financial services institutions could help with the purchase of equipment and mechanical devices as long as the projected cash flow (based on demand and projected expenditures) looks sound for the business. Coming back to the appropriateness of subsidies, Daoporto warns though about the potential distortion of the market, whereby subsidizing sanitation "entrepreneurs' selection, incubation and acceleration" should always follow some form of competitive process.

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[33] The reader should refer to the enlightening explanations in the YouTube video provided by Water for People on their ambitions and experience in trying to entice and support entrepreneurs in the sanitation sector. https://www.youtube.com/watch?v=4K0MCgGjPyM&feature=youtu.be

[34] For a somewhat different view on local private entrepreneurs, the reader should see Mougoué, B. et al. Analysis of faecal sludge management in the cities of Douala and Yaoundé in Cameroon. In *Sustainable Sanitation Practice: Faecal Sludge Management*. (EcoSan Club, Issue 13: Oct 2012)

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Daoporto also reminds us that we should not be considering all low-income families as homogenous but rather that market segmentation is essential to determining "enabling conditions to stimulate growth". This also means doing away with NGO and local government mechanisms that provide toilets for free in areas where families can afford to invest in sanitation under market mechanisms. He further states that "the overuse of 'blind subsidies' in the on-site sanitation sector is the primary cause that harms private sector's interests in this area." Patwary reminds us, however, that sanitation finance may need to be below average market interest rates to encourage investment particularly where public health risks are high. Related to this and with regard specifically to

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subsidies, Zandee notes that creating a market with subsidies with the intention of weaning entrepreneurs off these later proves very difficult and ultimately unhelpful. Thus, there is ample 'food for thought' but perhaps conflicting experience and recommendations on the issue of subsidies.

Particular Aspects Further Down the Sanitation Chain

Although less pressing perhaps in rural settings, in many cities across Africa and Asia, onsite sanitation technologies cover the vast majority of populations with the management of sludge then posing a huge challenge[35]. That said, the primary emphasis in the sanitation sector has been on achieving universal coverage rather than addressing the public health and environmental issues further down the sanitation chain of emptying, transport and disposal/reuse. Much of the discussion in the online forums regarding challenges further down the sanitation chain focused on similar issues as those raised above of government licensing and regulation particularly with a view towards ensuring health and safety (both occupational and for the general public). It was noted that public campaigns could be jointly organised by public, private and civil society groups to raise much needed awareness about different aspects of this end of the sanitation chain including the need for both significant investment and solid and enforceable regulation. It was noted that the financial and capacity constraints of managing or regulating these types of services particularly for smaller towns should not be underestimated. That said, the planning requirements to join up the services (across geographies, providers, and relevant authorities) would be more cumbersome for larger cities.

Transporting Sludge

One of the most challenging aspects of the supply chain is transportation. Reza Patwary notes that in most cases, collection and transportation are very much linked together as a service. However, in case of an unregulated environment, faecal sludge collection is closely linked to convenient disposal where the household is more likely to cover the costs. In a regulated environment, transportation may be linked more to designated discharge sites and thus perhaps more likely administered with the municipality as the contracting agent. The trick is to link up these different elements more closely.

In Bolivia, Monica Ayala notes that a regulatory resolution requires that water utilities register their service providers for faecal sludge transport in their localities. Whilst 28 sludge collecting and transport

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[35] See www.sandec.ch/seek for an example of practical research in this area (Sludge to Energy Enterprises in Kampala)

companies have been officially registered in Santa Cruz, for example, many more operate throughout the country without registering as there are no economic incentives or social pressures to do so.

Patwary goes on to note that faecal sludge management (FSM) may have much to learn from solid waste management, although there are clear differences depending on whether solid waste is collected directly from the house (with households more likely to agree to pay for this direct service) or from a community collection site. Again as noted above, payment for businesses involved in community collection sites may more likely come from recycling on selling or from municipal contracts. Municipal contracts allows for greater attention to health and safety and other regulations.

Thus transportation to designated sites remains a key issue whereby a small quantity of sludge translates into high fuel costs. Static or mobile secondary transfer stations can reduce the transportation cost drastically. However, like *vacutugs*, mobile transfer vehicles also need to be registered and recognized legally to make the transportation business formal and encourage investors. Bäuerl draws attention to a WSUP initiative in Maputo that is supporting a local entrepreneur through loans for equipment and training as well as the construction of a transfer station[36].

Disposal, Treatment and Reuse

According to a paper by Kone et al, an estimated 2.4 billion users of on-site sanitation systems generate faecal sludge that goes untreated, resulting in pervasive environmental contamination[37]. Public health risks combined with inadequate disposal options (due to insufficient landfill investments, transportation challenges mentioned above, etc.) are driving research on the potential uses of FS for agriculture and as fuel.

A key aspect of promoting thriving businesses to innovate in this space relates to technical aspects like pre-drying sludge to reduce transport costs and enhance its uses[38],[39] but also a municipality's ability to regulate against illegal dumping in drains and rivers. Patwary suggests that FSM businesses can be a commercially viable business overnight if access to drains is restricted, i.e. that businesses and households cannot dump their waste in local waterways. This would immediately raise the demand for emptying and sludge transportation.

Financial viability remains a question as to who would actually pay for treatment and who will build the system. There is an emerging consensus that sludge treatment plants should be built by the authorities or development partners. This could leave the operation profitably run by the private sector, who would be regulated to ensure environmental safety of the operation and also commercially operate the recovered resources, e.g. renewable energy or organic agricultural input.

Treated faecal sludge as an agricultural input calls for promotion and marketing among farmers – as experience from Thailand reveals that a municipality gradually revised pricing of such compost from free to market-driven prices. (Patwary contribution) Thus in many countries, government would also need to revisit its position on fertiliser subsidies to allow reuse products to have a chance at agricultural markets. For reuse, Hung Anh Ta notes that the government or local authority needs to establish a clear rule of law and legal framework registering reuse and by-products from faecal sludge. Only then will customers begin to have confidence in using the products.

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[36] Cowling, R. "Achieving sustainability: guiding entrepreneurs to independence." WSUP Practice Note: September 2013. (available at link)

[37] Koné, D. Cofie, O. O. & Nelson, K. 2010 Low-cost options for pathogen reduction and nutrient recovery from Faecal Sludge. In *Wastewater Irrigation and Health. Assessing and Mitigating Risk in Low-Income Countries* (P. Drechsel, C.A. Scott, L. Raschid-Sally, M. Redwood & A. Bahri, eds). Earthscan, London, pp. 171-188.

[38] See Murray Muspratt, A., et al. Fuel potential of faecal sludge: calorific value results from Uganda, Ghana and Senegal. In Journal of Water, Sanitation and Hygiene for Development (IWA Publishing: 2014) pps 223-230.

[39] See also Harrison, J. and D. Wilson. Towards sustainable pit latrine management through LaDePa. In *Sustainable Sanitation Practice: Faecal Sludge Management.* (EcoSan Club, Issue 13: Oct 2012)

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Ta goes on to note that the most important shift that would influence the sector would involve a business model that is focused on reuse and by-product markets. "Once we can have resource recovery, FS by-products can be utilized and the whole value chain changes from cost-based to value-based." With more money in the system, this may allow for differentiated charging based on ability to pay. Research programmes like those of Sandec on resource-recovery for energy production help to tackle several issues with one joined up solution.

Magdalena Bäuerl suggests that thriving businesses at this end may help us to reduce costs further down the chain to the household level. This may require government intervention initially to ensure sufficient quantities to make a business worthwhile, contracting transport companies to provide sufficient quantities of sludge combined with pressure on illegal dumping. She further asks whether market competition would help create efficiencies while driving down costs.

Further thoughts

Numerous institutions are working on how to expand coverage for sanitation services and the potential roles of the private sector to meet the Sustainable Development Goals. Less contentious than for water, the private sector increasingly features in the sanitation sector as delivering services, developing products and playing a role in marketing. Donors and funders are seeking ways to provide development assistance in this area, though many are mindful of not distorting the market, or may be cautious of funding potentially risky businesses. In many instances, what perhaps needed most is equity investments or more targeted lending for small(ish) businesses seeking to expand a sanitation-related business.

Whilst the focus in these online discussions has been mainly on the local private sector, there is also an emerging discussion about the role that large companies can play in supporting the sanitation sector. Usually through Corporate Social Responsibility related initiatives, this may have a more immediate objective of supporting preventative health programs for employees, their families and their communities. A healthy labour force with growing purchasing power is in everyone's interest. Along with recognising the impact of the effluent coming from their own manufacturing processes, companies are also increasingly recognising the detrimental effects that poor sanitation infrastructure may have on their access to high-quality water resources[40].

There does not seem to be consensus on the role of finance and subsidies in sanitation. Some contributors suggest that the public good nature of sanitation with its impacts on health and the environment require public funding. This makes good sense although designing citywide contracts and / or shifting financial contributions for smaller service delivery arrangements after programs are up and running might prove challenging[41]. The related roles of external agencies need to be thought through carefully so as not to distort the longer-term sustainability of the sanitation sector. Again, there is much experimentation going on in this regard.

A further aspect is the multi-dimensional role of the public sector given sanitation's relation to public health, environmental aspects, small business development, land use planning and other aspects. A joined up approach at the municipal level (particularly where the utility only has responsibility for sewered connections) often proves particularly challenging for a host of reasons. The private sector, though perhaps unlikely to get involved in supporting such overarching coordination processes, needs

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[40] Please see Schulte, P. and M. Fenwick, Exploring the Business Case for Corporate Action on Sanitation. CEO Water Mandate – White Paper: Sept 2014. (available at http://ceowatermandate.org/files/Sanitation.pdf)

[41] For information from Durban's experience on the contracting and procurement angle, please see Harrison, J. and D. Wilson. Towards sustainable pit latrine management through LaDePa. In *Sustainable Sanitation Practice: Faecal Sludge Management*. (EcoSan Club, Issue 13: Oct 2012)

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reassurance that its efforts and investments will be safeguarded, hopefully in a predictable regulated environment.

Ultimately, the conversation logically flows back to the comment by Hung Anh Ta that sorting out the end of the value chain with reuse as the goal should prove a real game changer. This would influence each segment of provision further up the chain. Although there is much research and experimentation still needed regarding how reuse practices best ensure public health but also create the conditions for financial viability, this must surely be a prime contributor to resolving the sanitation sector's growing public health and environmental risks.

Guiding Contributors

On Raising Demand at the Household Level (Sub-theme 1):
- Dr Amaka Godfrey, WEDC Loughborough University
- Lillian Mbeki, Consultant

On Meeting Demand at the Household Level (Sub-theme 2):
- Emily Endres, Senior Program Associate, Results for Development Institute
- Dr. Nicola Greene, Consultant

On Private Sector Engagement further down the sanitation chain:
- Hung Anh Ta, PhD Candidate, Asian Institute of Technology
- Magdalena Bäuerl, Project Officer, hydrophil
- Andreas Knapp, Managing Director, hydrophil

Overarching Moderator (and drafter of this overview document)
- Ken Caplan, Director, Partnerships in Practice (Discussion Co-ordinator)

To view the complete discussion on the SuSanA Forum, click here.

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Managing WASH in Schools:
Is the Education Sector Ready?

Thematic leads: Katrin Dauenhauer (Consultant); Jan Schlenk (GIZ); Dominik Giese (GIZ)

Content

1. WASH in Schools and SDG indicators

The direct links between WinS and SDG3 (health), SDG6 (water and sanitation) and SDG4 (education) pose the chance for increased inter-sectoral cooperation (For more information see SDG-homepage). Particularly, the education sector's leadership and management are critical to the broad-scale implementation and success of WASH in Schools (WinS). Yet, how is the education sector bringing WASH on board and how can the sector manage it? What does the reality look like in schools around the world? How can WinS be better managed? What shifts/changes are necessary to improve the sanitation situation in schools?

In the first half of 2016, tremendous work has been done to formulate indicators for WinS. In the process seven-core indicators focusing on drinking water, toilets and hand washing facilities as well as 23 expanded indicators have been developed.

Monitoring of the indicators will mainly be done by the education sector. Currently, Ministries of Education around the world are integrating the core indicators into the Education Management Information System (EMIS) to aggregate data at the national level. This in turn constitutes a chance for the WASH sector to embark on a collaboration with the education sector to assist the latter with the implementation, as this is a novel process for them.

Advanced service
Available when needed, accessible to all, free from contamination
(to be defined at national level)

Advanced service
Safe, clean, accessible to all, of adequate quantity, MHM facilities
(to be defined at national level)

Advanced service
HW facilities available at critical times & accessible to all; MHM education & products provided
(to be defined at national level)

Basic service
Water from an **improved** source is **available** at the school

Basic service
Improved facilities, which are **sex-separated** and **useable** at the school

Basic service
Handwashing facility with **water and soap** available to students

Limited service
There is an improved source (piped water, protected well/spring, rainwater, bottled water), but not available at time of survey

Limited service
There are improved facilities (flush/pour flush, pit latrine with slab, composting toilet), but not sex-separated or not usable

Limited service
Handwashing facility with water, but no soap

No service
No water source or unimproved source (unprotected well/spring, tanker truck/cart, surface water source)

No service
No toilets or latrines or they are unimproved (pit latrines without a slab or platform, hanging latrines, bucket latrines)

No service
No handwashing facilities at the school or handwashing facilities with no water

Illustration 1: JMP service ladders for monitoring WinS in the SDGs: advanced, basic, limited, no service. Each with regard to three areas: access to water (drinking), toilets (sanitation) and hygiene. Source: WHO, UNICEF (2016). Meeting report: expert meeting on monitoring WASH in schools in the Sustainable Development Goals.

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2. WinS and SuSanA's Working Group 7

The issue of WASH in schools is also at the core of SuSanA's working group 7 "Community, rural and schools (with gender and social aspects)" which attempts to raise general awareness for community and rural sanitation by creating discussion fora, enhancing networking opportunities as well as publishing research. Led by Claudia Wendland and Belinda Abraham, working group 7 (WG7) operates on the premise that communities themselves need to get deeply involved in sanitation initiatives and take leadership of their own sanitation projects and programs, including for example school sanitation, in order to ensure sustained sanitation services and to link sanitation to communities' livelihood programs.

In addition, the web page of the working group provides links to recent publications on the topic of WASH in schools, as for instance (in order of appearance) "Teacher's Guide to Integration WASH in Schools", "Water, sanitation and hygiene in health care facilities" and "Monitoring drinking water, sanitation, and hygiene in non-household settings: priorities for policy and practice." Moreover, working group 7 maintains a wiki, which contains a collection of sustainable WASH in schools stories among others.

2a Working Group 7 meeting during the Stockholm World Water Week 2016

During the Stockholm World Water Week 2016, Working Group 7 hosted a meeting on the topic of WASH in schools, followed by a two-week online discussion on the SuSanA forum. Kicking off the meeting in Stockholm, facilitators Belinda Abraham and Bella Monse presented Volumes I and II of the recent publication "Making WASH in Schools more Sustainable" which showcase various approaches, both practical and innovative, to providing sustainable WASH solutions in schools around the world.

Indeed, WASH in schools poses a special challenge since many criteria have to be fulfilled to positively affect students' and teachers' lives and to some extent also the surrounding areas. Therefore, the publications highlight the most

important sustainability criteria identified by SuSanA.

Sustainability criteria for sanitation

1. **Health and hygiene** include the risk of exposure to pathogens and hazardous substances and improvement of livelihood achieved by the application of a certain sanitation system.
2. **Environment and natural resources** involve the resources needed in the project as well as the degree of recycling and reuse practiced and the effects of these.
3. **Technology and operation** relate to the functionality and ease of constructing, operating and monitoring the entire system as well as its robustness and adaptability to existing systems.
4. **Financial and economic issues** include the capacity of households and communities to cover the costs for sanitation as well as the benefit, such as from fertiliser and the external impact on the economy.
5. **Socio-cultural and institutional aspects** refer to the socio-cultural acceptance and appropriateness of the system, perceptions, gender issues and compliance with legal and institutional frameworks.

   For details on these criteria, please see the SuSanA vision document "Towards more sustainable solutions".

Both the working group's meeting during the Stockholm World Water Week as well as the thematic discussion on "Managing WASH in schools: is the education sector ready?" focused on criteria no. 5, particularly the institutional aspects necessary to making WASH in schools more sustainable. Overall, the aim of the discussion was to gain a better understanding of the challenges and needs of the education sector to successfully manage WASH in schools.

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Illustration 2: Covers of "Making WASH in Schools more Sustainable", Volume I and Volume II.

2b Online Thematic Discussion on WinS

Running from September 19 to October 5, the online discussion on WinS picked up where the SuSanA WG meeting during the Stockholm World Water week left off. The discussion was structured around two themes:
  (1) Policy Issues on the Regional and Global Level and
  (2) Implementation Level

Belinda Abraham kicked off the first theme by raising the following questions: (a) how is the education sector bringing WASH on board? (b) How can the WASH sector support the education sector? (c) What does it take for better-managed WinS? (d) What shifts/changes are necessary to see the situation improve?

Theme II, on the other hand, focused on learning about examples of WASH in schools from around the world, which were provided by forum participants. Tackling the controversial question whether WinS simply needs more money to solve familiar problems like mismanagement, lack of institutional accountability, liability and responsibility were of particular importance. The guiding questions here were: (a) if the education sector is to fully take on the management of WASH in schools, is it only about the money? (b) Why is it easier to build new facilities than working with appropriate institutions like the education sector to manage what already exists? (d) What shifts are required to get from a dirty, broken or inoperable sanitation facility to one that is clean and working and that children are willing to use? (e) Is the WASH sector promoting

mismanagement in schools by building new facilities instead of focusing on operation and maintenance? (f)   Who is to blame? Donors, teachers, parents, engineers and/or governments?

The two themes ran concurrently on the SuSanA forum and show many interconnections that the synthesis aims to address. In the following, the main issues published during the discussion are presented. Doing so, the synthesis does not necessarily express all the standpoints that came up in the discussion nor can it take up all the issues raised during the course of the debate. If you are interested in participants' postings in closer detail, please refer to the brief summaries posted in the discussion threads or the individual posts as referenced by the post number.

3 Issues Debated During Thematic Discussion

Lack of inter-sectoral collaboration
The issue of a lack of collaboration between different sectors and its negative impact on WinS came up repeatedly during the online discussion. Jacques-Edouard Tiberghien from Partnerships in Practice, for instance, emphasized that the promise of inter-sectoral collaboration concerning the SDGs has clear implications for WinS. In addition, the current work of development agencies to better integrate WASH-health and food security, notably in schools, shows a growing trend to aim for collaboration among sectors (#19161). Still, collaboration oftentimes falls short. While it is normal for education policies to focus on educational aspects, the education sector tends to minimize or forget other aspects, which are equally important to the educational achievements of children, for example, health, nutrition and sanitation.

Lack of cooperation between schools, communities and different levels of government
Krischan Makowka noted that stronger collaboration between schools and their local communities is needed given the fact that, particularly in small villages, schools oftentimes constitute the community's main infrastructure.

Therefore, they play a vital role in daily community life and should not be seen as a separate structure managed by the education sector only (#19049).

Moreover, cooperation between local WASH in school initiatives and their communities is an important factor to guarantee the success of these initiatives, Philip Purnell from SEAMEO INNOTECH stressed. Community-partnership efforts help build the capacities of school heads in critical competencies related to school-based management such as school-community partnership-building, resource mobilization, school-improvement planning, learning environment management and holistic child development, among others (#19064).

Collaboration between local governments and schools should also be aimed for with regard to the provision of sanitation services. As Krischan Makowka noted, it would help if local governments actually had a mandate to supply schools (from the outside) with water and sanitation services. Yet, this would have to go hand in hand with the school administrators having a simple way of paying a small monthly fee for these services at the local level (#19133). Generally, however, there is a lack of collective planning; Remigius Mdetele from Rujewa Integrated Efforts to Fight Poverty (RIEFP) wrote (#19184).

As Krischan Makowka stressed the semi-official cooperation between school employees and local government structures functions adequately. However, as soon as an attempt is made to scale up WinS projects, cooperation is jeopardized due to bureaucracy, particularly with regard to budget responsibility (#19049).

Lack of leadership

As Jacques-Edouard Tiberghien noted, there is an urgent need for leadership with regard to WinS. This does not only apply to top down leadership from the Ministry of Education, but also includes a kind of pervasive leadership amongst the school, community and district level stakeholders in order for WinS to work (#19161).

School-based management (SBM)

School-based management (SBM) is a management approach where the school head in partnership with the local community, is empowered to make decisions regarding contextualization of the curriculum, school improvement planning, resource mobilization and school-level capacity programs for teachers (#19154).

Responsibility to reside at school level

Participants emphasized that a lack of accountability poses a problem for WASH in Schools. While WinS is "owned" by several actors, no single sector holds itself accountable for it. Participants are convinced that the education sector must take the lead in this regard and must come to the understanding that WinS is an issue that is central to achieving its vision, mission, and goals. Instead, however, the education sector has not clearly defined what part it plays while at the same time engaging other players and asking them what role they play in pushing WASH in schools, Alexander Winkscha from GIZ wrote (#19083).

On the other hand, Belinda Abraham also wondered whether the WASH sector is, in fact, expecting too much of the education sector with regards to fully taking on WASH in schools, in particular given that education officials increasingly have to assume more responsibilities (psychological care, child protection, nutrition, health, capacity development, etc.) and are facing higher expectations (#19097).

Both Philip Purnell from SEAMEO INNOTECH and Nicole Siegmund from the GIZ Regional Fit for School Program, however, stressed that WinS absolutely has to be part of the school's responsibility as one of the core accountabilities and expected competencies of school heads is ensuring that the school environment is conducive to learning and holistic child development. Functional toilets, access to (drinking) water and hygiene material should be part of every school according to this definition. WASH in schools therefore should not be viewed as an external program that school heads must take on as an added burden, but rather as an integral part of their responsibilities as managers of instruction, student learning

and development ([#19107](#)). There is a critical convergence between health and learning outcomes and the importance of WASH as an education strategy has to be recognized. Since schools are run by the education sector there can be no question that WinS falls under the responsibility of the education sector. That is not to say that help from other sectors and stockholders is not important to support them in this role. However, the education sector has to take the lead in this multi-partnership set up ([#19117](#)).

Furthermore, the fact that the responsibility lies at the school level also means that teachers need to be informed about WASH. However, as Dormaringan Napitu from Indonesia noticed, there is limited knowledge and capacity on the side of teachers to promote and endorse tangible benefits regarding the presence of WASH facilities for student health growth ([#19054](#)). Thus, there is a need to build teachers' knowledge and capacity in this regard, Consolate Manirambona from Mozambique emphasized ([#19155](#)).

Fit for School
"Fit for School" is a regional WASH in schools program implemented by Ministries of Education (MOEs) in Cambodia, Lao PDR, Indonesia and the Philippines with technical support from GIZ and SEAMEO INNOTECH (one of the Regional Centres under the Southeast Asian Ministers of Education Organization umbrella). The primary goal of the FIT program is to support MOEs to take on a leadership role in promoting WASH in schools within the context of a multi-stakeholder partnership involving ministries of health, local governments, and the private sector and school communities. The composition of the partnership is in recognition of the crucial impact health has on student learning outcomes and the need for deliberate efforts to promote education-health convergence at all levels – from school to district to province/region to national levels. (For more information see www.fitforschool.international)

Discussing Fit for School
During the online discussion, the Fit for School program was referenced repeatedly and its impact for sustained WASH in schools assessed critically. One issue raised by Belinda Abraham concerned the question of whether Fit for School is indeed a WinS initiative that comes from within the education sector or whether the need for significant external support is essential to the Fit for School model in order to ensure its success ([#19094](#)). Philip Purnell took up this question by elaborating on the example of the Philippines. While Fit for School was initially supported with technical assistance from GIZ and an external NGO (which is no longer operational) in a single province, over the past decade the Philippine Department of Education has fully integrated the approach as part of its nationwide essential health care program, he wrote. WASH school-level implementation is institutionalized and scaled-up nationwide and the remaining technical support provided by GIZ is only at the national level and focused on helping the government strengthen its WASH quality assurance mechanisms ([#19107](#)).

Secondly, participants assessed whether Fit for School can indeed be considered a successful template for the education sector to employ WinS. As Krischan Makowka noted, the success of the Fit for School model should not be overrated in the case of the Philippines. Where an outside support structure does not exist, schools have been overwhelmed dealing with WASH-related issues and they are faced with inadequate budgets. This is especially true in communities that are more rural where neither piped water supply nor emptying services for septic tanks exist. Furthermore, operation and maintenance and sometimes even the installation of sanitation services are paid for privately by teachers and parents ([#19110](#)). Philip Purnell agreed that limited access to WASH infrastructure is definitely a very real constraint in the Philippines and other countries of Southeast Asia. However, schools, which have been successful in addressing WASH in a sustainable manner, have challenged traditional assumptions and paradigms about WASH infrastructure, he stressed. There are promising examples of WASH infrastructure models that use simple, low cost, low water consumption alternatives

and that are constructed locally using indigenous/locally available materials by school communities. The so-called tippy tap model being one example of a successful and sustainable option (#19129).

The tippy tap model

The tippy tap model that makes use of recycled water bottles and a simple drainage system is an example of such a low-cost alternative for hand washing and tooth brushing. More research and investment is needed in these community-based alternatives parallel with efforts to expand access to piped water and traditional sewage systems (#19129).

Illustration 3: Children using a tippy tap. Photo credit: © Ivan Sarenas/GIZ Regional Fit For School Programme

Prioritizing WASH

Schools have numerous responsibilities and sanitation is just one of many. Nevertheless, participants emphasized that WASH takes priority over some if not most of the other aspects and that prioritizing WASH is in fact crucial. WASH should be at the beginning of all efforts with other aspects only added later. Especially for systems that are rather weak, it is important to focus and prioritize, instead of trying to do everything simultaneously, Nicole Siegmund, for instance, stressed (#19117).

At the same time, participants critically noted that WinS is not a priority for the WASH sector. In fact, the WASH sector has stronger incentives to work at the household level because of existing key performance indicators (KPIs). To be precise:

The key performance indicator of a WASH programme is addressed to the WASH sector rather than the education sector. Yet, access to WASH by "number of students", for instance, is not accounted for as a global/national WASH target. Therefore, the WASH sector is focused more on the provision of WASH facilities for the household rather than at the school level, Dormaringan Napitu elaborated (#19054).

Funds: A question of sufficiency, mismanagement or distribution?

Kicking off the discussion on matters of WinS implementation, Belinda Abraham set out with a bold statement: WASH in schools does not need more money! Looking at pictures of run down toilets and wash facilities, Abraham suggested that these images tell an all too familiar story of mismanagement, lack of institutional accountability, liability and responsibility. Thus, the problem is not insufficient funds, considering that new facilities are built. Rather, one has to wonder why it is easier to build new facilities than work with appropriate institutions like the education sector to manage what they already have. (#19043)

Most participants agreed that insufficient funds alone could not explain certain shortcomings with regard to WinS. While a WinS program will of course have some costs, Steve Mecca, a professor at Providence college wrote, what is needed is not necessarily more money, but more commitment (#19214). Several other reasons are given in this regard: First, a lack of knowledge regarding how to prioritize funds from the government and other stakeholders, as is emphasized by Remigius Mdetele (#19184). Moreover, Krischan Makowka stressed that it is mostly a question of who has the funds and is actually able to use them (#19133). So, for instance, bureaucracy and politics can oftentimes get in the way of a reasonable use of funds (#19133). Bottlenecks at the central and state level to channel funds for facility development exist and they need to be taken seriously, Nicole Siegmund wrote (#19144). Similarly, school administrators are only able to pay a small monthly fee to local governments for supplying the school with water and sanitation services if a billing system is in place (#19133). Finally, problems with inflexible procurement systems also make it hard to repair existing structures instead of building new ones, Makowka noted (#19053).

Importance of operation and maintenance (O&M)

The importance of O&M came up during different points in the online discussion. Several participants noted that operation and maintenance are indeed the major challenge for WinS. Among others, the difficulty with operation and maintenance results from large institutions often suffering from issues related to inflexible procurement systems and various related issues that make it almost impossible (and often more expensive) to repair existing structures rather than build new ones. The institutions operating the schools, on the other hand, usually have neither the budget nor the qualified personnel to do actual repair and maintenance beyond the most basic level. Thus, as soon as a complex issue arises, the higher level of institutional management is activated, which finds it almost impossible to repair and opts instead to rebuild. Moreover, as the allocated budget does not account for dismantling the old broken equipment, the result is the stereotypical new next to old pictures everywhere, Makowka wrote (#19053).

One participant working as a UNICEF WASH State Consultant with the Government of Maharashtra, India, stated that WASH facilities in residential *ashramshalas* (schools) are in questionable condition. It is evident that all the old buildings had WASH facilities developed but the major challenge is operation and maintenance. Unless there is constant operation and maintenance in place at the school, even a school that employs the three star approach will go back to poor WASH conditions (#19144).

Three Star Approach

The Three Star Approach for WinS is a new and innovative concept developed by UNICEF and GIZ and first published in 2013. It aims at changing the "traditional" way of programming for WinS. The objective is to facilitate realistic and stepwise improvements in order to make usable facilities and practices in WASH universal features in all schools, even when only limited resources are available. (For more information on the Three Star Approach, see UNICEF; GIZ (2016). Scaling up Group Handwashing in Schools, p. 6)

Illustration 4: The table summarizes the changes and conceptual shifts that constitute the core of the Three Star Approach. Source: UNICEF; GIZ (2016). Scaling up Group Handwashing in Schools, p. 6.

Two suggestions were made that could be beneficial to better O&M. First, Krischan Makowka suggested that a change in the curriculum towards more vocational training could solve the problem because in this case more teachers and maybe even students might be able to fix problems with WASH facilities. Alternatively, "cooperation" with parents who help out here and there could be formed (#19177).

While arguing for more vocational training constitutes an innovative idea, there was doubt whether it can indeed be implemented. Cécile Laborderie questioned whether a change in curriculum is in fact easily implementable. In addition, she doubted that teachers or headmasters would be able to get involved in the technical aspects of WASH, including O&M. Nor should they, she argued. In developed countries like France, daily maintenance of facilities is taken care of at the municipal level, i.e. there is one or several technicians who are paid by the municipality to take care of the school facilities. This is cost effective in terms of human resources, tools and procurement. She cautioned against trying to implement solutions like vocational training to solve the problem of O&M, which in developed countries like France would be unthinkable (#19186).

A second suggestion made was to outsource building maintenance to a local/private sector

organization. Not because privatization is necessarily the best option, but because smaller private enterprises usually have the needed flexibility in their procedures to manage repairs, while being able to bill the school a regular sum that can be easily fit into administrative procedures, Krischan Makowka argued (#19053). Belinda Abraham wondered whether small-scale, private sector companies or perhaps even NGOs could be beneficial in this regard. Perhaps it is a niche that can be filled by NGOs/private sector as it is in many cases not seen as threatening to government authority and works on a smaller scale, which is closer to communities; she pondered (#19055).

Importance of monitoring and evaluation (M&E)

Participants agreed that the key to WinS sustainability lies in monitoring and evaluation. Monitoring structures have to be created and reporting responsibilities established, Alexander Winkscha argued (#19083). In addition, M&E feeds into accountability efforts, which participants regard to be a key for successful WinS. This implies that M&E should be based in the education sector so schools can be held accountable, he wrote.

From pilot to scale

Recounting his experiences from Laos and Cambodia, Alexander Winkscha stressed that while many pilot projects are very successful and inspiring; taking these projects to scale is an entirely different matter. He talks about several problems/dilemmas in this regard (#19083):

Dilemma No. 1: "From hands-on to Political/more abstract"
Virtually all initiatives start out with models to test and verify their approach and assumptions. For WASH in schools, this usually means setting up model schools. This constitutes very hands-on micro-level intervention. Yet when the critical point in time of going to scale comes, initiatives are required to engage with structures and processes on the meso- and macro-level. However, the work at these levels is much less hands-on and much less tangible – harder to understand and harder to advocate. On top of that, suddenly processes do not only follow a different administrative logic but on many levels

also a political logic that probably was not present during the model-school phase (#19083).

Dilemma No. 2: "Dilemma of the individual"
Going to scale means working on structures and processes. But starting with model schools, even with the aim of institutionalization and a parallel investment in strengthening capacities in governmental (or other service delivery) structures from the outset, initiatives in their initial stages are often dependent on sympathetic individuals (sympathetic to the initiative´s approach) and interventions often start out with a strong focus on individual capacities through e.g. trainings. When the shift from model schools to strengthening or building up management, steering and monitoring structures occurs, the focus needs to shift away from helpful individuals and individual capacities to institutional processes and structures. However, this is difficult. Difficult because the intervention itself has not operated like this so far and the involved staff usually has not worked in such a way to achieve success in the model schools (#19083). This point is also stressed by Belinda Abraham who wrote that in the process of institutionalizing WinS, we should not speak about individuals but rather about a systematic approach to giving head teachers or district teams incentives to include WASH in schools in their monitoring or daily affairs (#19097).

Problem No. 1: Institutionalizing the training of individuals
Through learning exchanges, the Fit for School program tries to train individuals and foster exchange and mutual learning between provincial and district offices. This raises the question of individual learning versus incorporating these training in the repertoire of Ministries of Education and thus institutionalizing them, Alexander Winkscha noted (#19083).

Problem No. 2: Engaging subnational structures
During the scaling up process, subnational structures suddenly take centre stage, yet oftentimes it is not clear how to engage them. Have we already engaged them? Have we thought about their role? The role of these subnational structures has not been well

defined and officials may not know what is expected and how to meet those expectations. Oftentimes, the national level does not really know what the subnational roles will be either. Provincial levels often have a hard time (and subnational offices have the added stress of having to engage with local power structures that might follow fundamentally different interests), Winkscha wrote and presents cascading training structures as a potential solution to this problem (#19083 – also see recommendation section).

4 Country Reports

Philippines

Philip Purnell presented the example of the Philippines where the Philippine Department of Education has been seeking to decentralize educational management through school-based management for over 15 years. The Fit for School approach leverages the opportunities provided by school-based management for community-based inter-sectoral partnership in support of WinS [see Example "Fit for School" for more information]. The example of the Philippines (and Lao PDR) shows that decentralized education management can be used as an entry point for sustainable and scalable WASH in school implementation (#19107).

Lao PDR

Lao PDR, similar to the Philippines, has also implemented the Fit for School approach. In Lao PDR, however, a somewhat different model to scale up of the FIT approach is being supported, Philipp Purnell elaborated (#19107). While school heads are still playing critical roles in ensuring integration of the FIT approach to WASH in their schools, the scale-up process is being spearheaded by the district level of the Ministry of Education. District level supervisors are acting as catalysts of change and scaling-up using existing structures such as the school cluster system to engage and support school leaders as WASH champions within a Lao contextualized approach to change management. This process is being driven, financed and managed by the Lao Ministry of Education. The limited technical assistance provided by GIZ is focused on helping the MOE strengthen its WASH in school quality

assurance system through the Three Star Approach.

Germany

As Valentina Grossi elaborated, in Germany, the city is responsible for availability and maintenance of the facilities in schools, with the city education authority having most of the responsibility. Recounting from a study that she conducted, Grossi wrote that facilities in the examined schools were in place and functioning and maintenance was reported as efficient. Nevertheless, pupils did not show healthy behaviours: many avoided visiting the toilets; a consistent number did not always wash their hands with soap after using the toilet and/or did not drink enough water at school. The study analysed possible issues behind these results, with an emphasis on the institutional level. In particular, Grossi concluded that the cleaning plan set by the authorities could be improved, as it cannot always ensure clean facilities, especially in the afternoon and after breaks. In addition, some hindering factors may limit maintenance efficiency, e.g. limited human resources (both for schools and for authorities), high costs and fixed budgets as well as a lack of efficient coordination between the various stakeholders. Finally, she recommended that more-detailed regulations, like the ones for health-care facilities, could help the current efforts of improving WASH in schools, providing for example guidance on hygiene education (not yet standardised), adequate cleaning, and practical toilets-pupils ratios (#19203).

India

Several participants referred to the situation of WinS in India. David Crosweller, for instance, recounted from his experiences in Tamil Nadu and stressed the importance of teachers promoting hygiene. Based on his experiences, the participant saw no doubt that where the head teacher and staff engage with students regarding WASH facilities, there is better usage and a greater knowledge of hygiene. This in turn greatly impacts the messages children take back to their families (#19168).

Ranjan Kumar Mallick, on the other hand, focused on the rural areas in Odisha and Uttrakhand. He wrote that schools, which have water and sanitation facilities often suffer from

(a) non-existent or insufficient water supply and hand washing facilities, (b) toilets that are not adapted to the needs of the children in particular girls, (c) broken, unsafe water supply, sanitation and hand washing facilities, (d) a situation where children only exhibit poor hygiene and hand washing practices, (e) non-existent and irrelevant hygiene education for children, (f) unhealthy and dirty class rooms and school compounds as well as (g) improper operation and maintenance of the exiting facilities. Under these conditions, schools and community environments become unsafe places where diseases are transmitted, he stressed. These compromise children's attendance and performance at school; and commonly, can result in death ([#19050](#)).

Finally, Mathew Luckose argued that – as has been stated with regard to other contexts as well – operation and maintenance constitutes the main problem in India. Support from the WASH sector should therefore focus on maintaining the created infrastructure. There is enough money to invest in constructing new WASH facilities but no money to actually maintain and run them. School management complains about insufficient fund allocation for O&M. The focus should thus lie on finding a solution to ensure WASH security in schools ([#19076](#)).

Lithuania
Jovana Dodos recounted from a study conducted in Lithuania, which found that less than 30% of the students regularly use the toilets in schools. In fact, the acceptability of school toilets is one of the most common problems in the pan-European region. She argued that the input of schoolchildren is needed in order to tackle this problem of acceptability ([#19188](#)).

Nepal
Probably the biggest difficulty with WinS in Nepal is access to water, particularly in the rural hill areas, Pamela White wrote. Without sufficient water, the toilets will block up and quickly become unused. Therefore, it is critical that school needs are considered when planning new rural water schemes.

In addition, cultural/religious issues, particularly as they affect Menstrual Hygiene Management

(MHM) also pose a challenge. For one, menstruation is considered a taboo issue and until recently, schools did not have separate toilet facilities for girls, which resulted in school absenteeism for girls during menstruation. Moreover, as some schools have a shrine on the premises; girls are unable to attend school during menstruation, as teachers believe it to be a sign of disrespect of the gods.

With regard to the national sanitation campaign, teachers and children have played an important role. Children's clubs have been very active in monitoring open defecation and are very important actors regarding behaviour change ([#19159](#)).

Kenya
Rickson Wachira presented photographic evidence of the WASH situation at Kibera Primary School, located in the Southern part of Nairobi. The pictures showed corridors of sanitation blocks that are full of faeces and signs of vandalized doors. The status of the washroom is in worse shape than pit latrines in informal settlements, he stated. In fact, teachers who have been working in the school for many years claim that they have never seen a drop of water coming from the pipes ([#19066](#)).

Similarly, Doreen Mbalo wrote that while the Kenyan education sector has made significant progress in the pursuit of universal education through the implementation of free primary education, the development of water supply and sanitation infrastructure has not kept pace with increased pupil enrolment making the current situation unacceptable. Thereby, a number of challenges are faced, for instance (a) while Kenya has a devolved government structure, responsibility for the education sector resides at the national level and is not devolved. Therefore, responsibility for O&M remains unclear; (b) national data on the status of sanitation infrastructure in schools is not available; (c) insufficient funds are allocated to the construction of sanitation infrastructure by the government, resulting in a huge investment gap. In the past, funding for sanitation infrastructure was largely dependent on development partners; (d) unclear responsibilities and lack of cooperation between responsibilities and lack of cooperation between

sectors (like water, health and education) (#19111).

Uganda

Prit Salian shared his experiences from a city sanitation project in six small and medium-sized towns in Northern Uganda, including sanitation in public schools and public health facilities. The aim of the project is to improve the capacities of local governments to plan and implement sustainable interventions in sanitation and to improve Faecal Sludge Management (FSM) across the city. He presented a number of the preliminary findings: (a) there is a low level of interest among the school management in improving hygiene in schools; (b) corruption and embezzlement of funds are common practices on the part of the school management; (c) there is a general lack of funds; when a transfer of funds from the district education board occurs, they are used for other, seemingly more pressing, things first and (d) schools suffer from theft and vandalism from members of nearby communities. Overall, he sees the lack of sanitation in school as a systematic problem rather than a hardware problem or awareness raising issue (#19253).

To promote WinS on the level of local governments and town councils, the approach of i-San Associates (Integrated Sanitation Solutions for Urban Development) focuses on the following activities: (a) raise the political will for sanitation at all levels; (b) involve head teachers (or representatives) in the Sanitation Task Force for the Town Councils to foster dialogue between the two; (c) enforce the town council's authority to close down schools with poor levels of hygiene; (d) develop a school sanitation plan that describes the roles and responsibilities of all actors involved. The monitoring of the implementation of the plan is the responsibility of the town council staff or the district local government (#19253).

5 Lessons Learnt

Decentralized educational management (DEM) has proven to provide good opportunities for promoting effective WASH in schools

School-based management – as part of national policy reforms that decentralize

educational management – offers the chance for sustainable and scalable WASH in school implementation. DEM helps empower school heads as

WASH champions and decision-makers ensuring interventions are contextualized according to local conditions and realities. At the same time the community-partnership efforts supporting these local WASH in school initiatives helps build the capacities of school heads in critical SBM-related competencies such as school-community partnership-building, resource mobilization, school-improvement planning, learning environment management and holistic child development, among others. Thus, a mutually reinforcing dynamic at work with highly beneficial results can be observed (#19064).

Hardware is not enough!

While the claim that "Hardware is not enough!" has been around in the WASH sector for some time, the understanding that "software" issues play a vital part as well has to be truly reflected in the work and approaches of the WASH sector. Approaches have to be implemented that include more than "pseudo software" issues; they have to be integrated in terms of structures and processes and they have to address accountability and ownership honestly (#19075).

Operation and Maintenance lies at the heart of successful WinS

Several suggestions are made with regard to O&M. Outsourcing building maintenance to local/regional private sectors, for instance, could be a way forward to tackle the problem of O&M. Another suggestion is to include local artisans in O&M trainings, e.g. in the management of water points. The idea is to include local artisans that are engaged in the construction of infrastructure in the training to build their technical capacities in O&M. Finally, the development of an O&M manual for schools, which guides the training of the school's board of management on O&M and will be handed over to each school, is suggested. This manual is adapted to the situation of the individual school by including a list of local suppliers/providers for needed spare parts and

materials or desludging services ([#19205](#)) in order to achieve sustainability.

More commitment is needed

More commitment, rather than more money is needed ([#19214](#)). This includes a constant development of ownership by the various stakeholders within the government system.

6 Recommendations

6a Policy level

Respect traditional practices

Oftentimes, international policy makers neglect traditional and customary rules with regard to health and hygiene, which consequently results in non-compliance. While respecting traditional practices does not mean that policy makers should adhere to customs that rule out sanitation facilities in schools, it means considering local customs when possible in order to achieve higher acceptance of WASH policies ([#19044 #19060](#)).

The education sector must broaden its focus

The education sector's narrow focus on educational policies has to be expanded to include issues such as health, nutrition and sanitation facilities. These should be included in any education policy ([#19061](#)). The inclusion of Indicators on WinS into the monitoring system of the education sector (EMIS) is clarifying the responsibility for WinS as a school based management task.

Establish a systematic quality assurance system

Deepening the impact of WinS not only requires an enabling policy environment but a systematic quality assurance system (e.g. the 3 star accreditation model) (#19107).

Distribution and use of funds is critical

The issue of the use of funds is critical for successful WASH in schools. It is not per se about more money (even though there are places where a lack of funding poses a problem for WASH in schools), yet how the funds are used and by whom they can be used are critical questions. Putting a billing system in place to enable schools to pay for the supply of water

and sanitation services (by the local government), for instance, is mentioned as one recommendation to guarantee a functioning sanitation infrastructure. Moreover, ministries of education and provincial education offices should use their own budget to pay for trainings such as the Fit for School program. This way, provincial offices will learn how to prioritize. Also, the use of available funds (in many cases funds are available but not used or not used properly) has to be facilitated or feasible models for resource mobilization according to the local context must be developed. Overall, as the discussion showed, the issue of funds is a complex one ([#19144 #19163](#)).

6b Practical implementation level

Have a clear and systematic mobilization strategy

The experience with engaging institutions shows that there is a need for a clear and systematic mobilization strategy that defines the process of stakeholder engagement. A community mobilization strategy should therefore also include a manual on the engagement with schools ([#19205](#)).

Challenge traditional assumptions on sustainable WASH solutions

Challenging traditional assumptions and paradigms about WASH infrastructure can be a successful way forward to address WASH in a sustainable manner. There are promising examples of WASH infrastructure models that use simple, low cost, low water consumption alternatives that are constructed locally using indigenous/locally available materials by school communities such as the tippy tap model ([#19129](#)). Choosing the right technology options (simple, usable, durable and desirable) is key ([#19220](#)).

Support the education sector to strengthen (inter-sectoral) partnerships

Partnerships between the education sector and the subnational and local level (local authorities, communities, civil society and the private sector) have to be strengthened. Successful and sustainable WinS will not be established by temporary programs and outside actors but through enabling government partners and

other local partners to take a leading role in these change processes (#19075).

Prioritize! WASH has to come first

For systems that are rather weak it is important to focus and prioritize instead of expecting that everything will happen at once. WASH should be the first step of comprehensive school health programs, complemented by other aspects at a later point (#19117).

Keep it simple!

Approaches are needed that offer simple, focused and effective interventions and that do not overwhelm the education sector. Stepwise approaches that start with some doable aspects and build up from there have the potential to overcome a sense of paralysis and dependency on the part of the education sector and instead create a sense of ownership. Interventions on the school level should be simple and not too time consuming (#19117).

Understanding of the obstacles for the education sector regarding WinS has to be increased

A deeper, shared understanding of the problem of low levels of sustainability regarding WinS and the low impact of most WinS programmes has to be gained. Tacit knowledge about obstacles has to be made explicit. Strategies are needed which address the underlying causes and activate the potential for change (#19161). This includes the development of a deeper understanding of the education sector overall by the WASH sector.

Constant monitoring is required, located within the education sector

Constant monitoring of the WASH conditions is needed in order to ensure that adequate facilities exist and function. By basing M&E within the education sector, accountability of the education sector is increased. Schools are held accountable for the state of their WASH facilities.

Acknowledge the importance of subnational structure for scaling up efforts

During the scaling up process, subnational structures take centre stage. Representatives like province and district offices and officials at

this level have to be meaningfully engaged. Cascading training structures, in which provincial officers take responsibility for training district officials and these in turn orient school principals and school communities on the program approach have proven to be a good way to do so. Given the importance of subnational structures, it has to follow that they are truly engaged and roles and responsibilities are clarified (including O&M).

Focus on systematic approaches right from the beginning

Focus more strongly on system strengthening. Try to have longer program periods to give enough time to put systems in place or remove structural hurdles. In addition, plan for the time after the support will end (phase-out periods, exit strategies) in order to avoid a collapse of the program as soon as external support ends (#19117).

Educate the educators

There is a lack of knowledge and capacity on the part of teachers to promote the benefits of WASH facilities within the school community and to in fact put those facilities in place. (#19220)

Have a clear memorandum of understanding (MoU)

It is crucial to formalise the relationship with all stakeholders present at the school in a clear MoU that defines the roles and responsibilities of each party. The MoU should clearly outline (a) the objective, scope and duration of the project; (b) the results and activities of the project; (c) the commitments of each of the three parties (BoM, government, Caritas or its local partner) signing the agreements; (d) the selected representatives of each of the three parties (#19205).

Collaborate with the school management

The Board of Management (BoM) is in charge of the school. Any engagement with the school must therefore start with a meeting with the BoM. It is essential to engage in a transparent dialogue with the BoM about its plans and priorities with regard to WASH already at the pre-assessment stage. This will build a sound basis for a balanced partnership throughout the project implementation (#19205).

Collaborate with the head teacher

The head teacher is the secretary to the BoM and supervises the day-to-day activities within the school, holding a central position within the school. His/her buy-in is therefore essential to the success of any WASH intervention at the school. She/he also informs the BoM (Board of Management) and the parents of the latest developments and further requirements of the school. In most cases, the head teacher becomes the contact person within the school. The WASH sector therefore needs to engage in an open dialogue with the head teacher from the beginning and involve him/her in key activities such as the training of trainers of CHAST (Children Hygiene and Sanitation Training). Moreover, the WASH sector can support the head teacher in the communication with the BoM, the parents and his staff – for instance by providing a summary of the project objectives and activities, the support required by each group and key hygiene messages (#19205).

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7 Contributors & Bibliography

The following contributors made one or more posts on the forum and/or took part in the SuSanA Working Group 7 meeting during the Stockholm World Water Week 2016. The contributors are listed in alphabetical order.

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Schlenk, Jan	GIZ Sector Programme Sustainable Sanitation	Germany	
Siegmund, Nicole	GIZ Regional Fit for School Programme	Philippines	
Singh, L. Jelshyam	Action for Rural Development Organisation	India	
Souza, Samuel	Federal University of Rio Grande	Brazil	
Tempel, Annkathrin	GIZ Sector Programme Sustainable Sanitation	Germany	
Tiberghien, Jacques-Edouard	Partnerships in Practice	France	
Wanjihia, Catherine	Caritas Switzerland	Switzerland	
Wendland, Claudia	WECF & SuSanA WG7-Lead	Germany	
White, Pamela	FCG International, RVWRMP & RWSSP-WN	Finland	
Winkscha, Alexander	GIZ Regional Fit for School Programme	Lao PDR	
Woodburn, Hanna	Global Public-Private Partnership for Handwashing	USA	
Wouters, Shirley	Water Services Trust Fund (WSTF) Kenya	Kenya	

Compiled and edited by: Katrin Dauenhauer, Jan Schlenk, Thomas Langkau
Reviewed by: Philip Purnell, Belinda Abraham, Habib Benzian, Bella Monse, Arne Panesar, Dominik Giese

sustainable sanitation alliance

Integrating sectors to address the holistic needs of children

Thematic Leads: Kirk Dearden (IMA World Health); Tricia Petruney (FHI 360); Emily Mates (ENN); Debjeet Sen (PATH)

Introduction

The new era of the Sustainable Development Goals (SDGs) has enhanced the conversation around the need for partnerships (SDG 17) and has accelerated a conversation about how organisations should best work together. The success of each SDG is linked to the progress of all the other Goals, especially when we consider the most vulnerable, such as children in their first 1,000 days of life. A mother's primary concern is a healthy, thriving child able to reach his/her full potential.

The differences between nutrition and early childhood development messages do not matter to her, nor do technical distinctions between water, sanitation and hygiene, and maternal, newborn and child health interventions. To a mother, the essential elements, which contribute to her child's well-being, are interconnected. Therefore, meeting the full spectrum of needs for a mother and her child requires greater collaboration and innovation among stakeholders from different sectors and leads us to a new way of working, free from our traditional development partitions

The ***BabyWASH Coalition***, made up of more than 30 organisations from civil society, funding organisations, the private sector and academia, was set up to explore how best to integrate sectors and break down barriers that hinder collaboration. By prioritizing advocacy, the creation of programme guidance for integration, and the development of integration metrics, the Coalition is advancing the conversation around the benefits and challenges of integration.

The BabyWASH Coalition hosted this conversation around integration to further the case for sensible integration and to collect case studies and tools that could be helpful for other organisations. What follows is a summary of each of the three topics.

Discussion Topics

4 Oct – Examples of Successful Integration
What examples of success or failure has your organisation had in integrating programming? In what ways can integration be helpful or detrimental?
http://bit.ly/2e8LVzF

12 Oct – Tools for Integration
What tools already exist to help organisations integrate across the sectors?
http:/bit.ly/2fUDUjT

18 Oct – Defining the Gaps
What tools and/or guidance do not already exist that would be helpful to have in order to integrate more fully? http://bit.ly/2fF9EpG

Conversation Word Cloud

The word cloud to the right depicts the most common words that were brought up during the discussion. The size of each word corresponds to how often it was mentioned in the course of the discussion. As you can see, an integrated approach requires *evidence* and a *change* in the way both *development* works and in the way *communities* have traditionally interacted with the development sector. While there was a lot of talk about WASH integration, health and nutrition were also mentioned frequently. We need to continue to strive to involve our early childhood development (ECD) colleagues in these discussions, find where ECD messages can be inserted into current health, nutrition and WASH platforms, as the new 2016 Lancet series on ECD suggests. Do any of the most common words strike you as unusual or interesting?
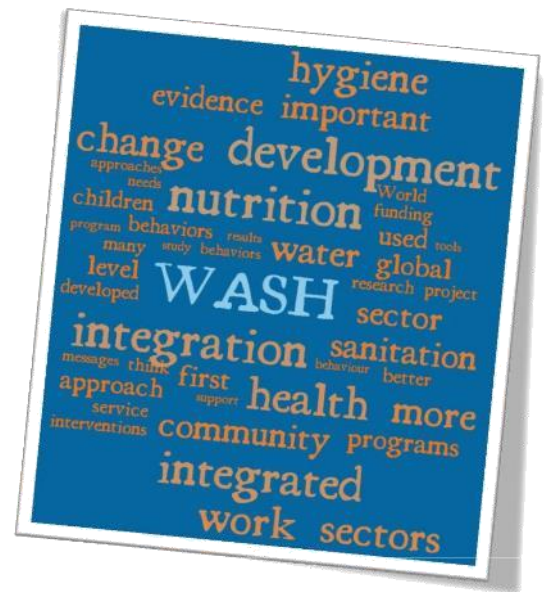
Key Studies in Support of Integration

These studies in particular point to the need to approach health and nutrition from a more holistic perspective including WASH and early childhood development.

Dewey and Adu-Afarwah reviewed 38 intervention studies and found that even in the best nutrition programmes, promoting good foods addressed only one-third of the average deficit in stunting (chronic malnutrition) experienced by Asian and African children. This study reminded us that food alone does not solve the challenge of poor nutrition.

Jean Humphrey's 2009 Lancet article (http://bit.ly/2eiwuFU) suggested that toddlers' poor hygiene and sanitation—including frequent exposure to and ingestion of animal faeces—contributes to environmental enteropathy,

which, in turn, is associated with greater morbidity and poor growth.

Ngure and colleagues (http://bit.ly/2eRNfE5), as part of the SHINE project in Zimbabwe, found that infants living in unhygienic environments ingest large amounts of animal faeces when they are left on their own to play.

Bartram and colleagues (http://bit.ly/2fwj1r8) show the benefits to health from integrating WASH into health programming.

Joint WHO and UNICEF teams (http://bit.ly/1HXkihc) discovered the poor state of WASH in healthcare facilities for low and middle-income countries, thereby making the case for the need for WASH in Health.

Examples of Integrated Programmes
➤ ASTUTE Project in Tanzania (Addressing Stunting in Tanzania early) http://bit.ly/2eiEkPJ
➤ Village based child nutrition programme in Rwanda
➤ Project in Nicaragua using the Healthy Start Campaign to provide WASH and health messages to expectant mothers
➤ The WAMMA Project in Tanzania http://tinyurl.com/p7w4a2b
➤ Go-Baby-Go for integrated ECD http://bit.ly/2eJscWG
➤ Project in Peru using the arts to promote hygiene behaviour change youtu.be/nWWZCGpQt34
➤ Suaahara Project in Nepal for integrated Nutrition http://bit.ly/2fBhKOp
➤ Project in Nepal integrating vaccinations and hygiene promotion http://bit.ly/2fwlPod

Theme 1 Recap: Examples of Successful Integration

The discussion was a lively time of sharing programme approaches, examples, and key learnings. The following 10 takeaways were pulled out as what worked for the implementers that took part in the conversation. These can assist other implementers as they plan for integrated approaches.

1. Focus on just a few behaviours, and for certain behaviours - such as handwashing - only focusing on a few critical points so as not to dilute the message or make it too complicated

2. Get buy-in through two-day district orientations that included government authorities from a variety of sectors. This acted as a way to have multiple sectors in the same room collaborating on how to solve problems

3. Bring technical as well as community-based staff up to speed on WASH. The reverse is also true: WASH experts at all levels can benefit from exposure to agriculture and other disciplines. For example, staff who promoted homestead food production are very knowledgeable about agriculture but do not have much experience in WASH. However, their efforts in WASH were critical to overall programme success

4. Integration should be done right from the start, since trying to merge components later on is almost impossible. This is difficult as there is always a rationale for one component to rush ahead and not wait for a proper integrated assessment

5. Select one sector as a (first under equals) leader that takes precedence over the other sectors to some limited extent. This helps coordination and helps to drive the programme forward

6. Start relatively small and focused (i.e. not too many sectors involved) to establish your norms and practical ways of working, learning and measuring success, and add in more sectors as you gain expertise

7. Have community health workers use action cards to help caretakers think through barriers to behaviour change. Especially when integrating, many messages will be given and a caretaker can get confused. The action cards walk through common barriers and help to operationalize messages, making them more concrete and memorable

8. Work in a multi-disciplinary team to help individuals to appreciate development from a variety of angles and provide a richer approach to improving their own sector

9. Focus on engaging communities in discussions on how to solve their own problems so they are owners of messages and solutions, even with an increased number of messages due to integration. The whole aim of more integration is to better respond to the needs of individuals

10. Allow middle level staff from different departments to plan and work together. This requires faith from the department head and is empowering to the middle level staff, creating a sense of pride in the integrated work

Theme 2 Recap: Tools for Integration

The discussion encouraged the sharing of tools for integration. The following are the tools that were shared:

Development Sector Adjacency Map: FHI 360 identifies sectors that lie outside of a programme's scope, yet are related enough to its core goals and objectives that they pose opportunities for enhanced impact via integration. The map helps practitioners determine which other sectors are important to consider as they make strategic decisions about development solutions. http://bit.ly/2fld8wn

A Resource Package for Integrated Development: FHI 360 has delivered or is currently implementing more than 70 integrated development programmes. This package provides a curated synthesis of their collective lessons learned from a diverse array of programmes and research, as well as a broad range of materials, tools and resources for global development practitioners to use in advancing their own integrated efforts. http://bit.ly/2fdXS6W

Integrated Development Case Study Series: Each case study provides three common challenges documented by 68 integrated FHI 360 projects and illustrates how each project approached those challenges. http://bit.ly/1THQB9x

Guidance for Evaluating Integrated Global Development Programs: This comprehensive framework is a guidance document for evaluating multisector, integrated programmes. It summarizes current research methodologies and approaches specific to integrated programmes and includes guidance and key considerations on formative research, performance indicators, programme monitoring, process evaluation, cost analyses, impact evaluation and scale-up evaluation. http://bit.ly/2fYqhiF

A Prioritized Research Agenda for Integrated Development: Developed together with the LOCUS coalition, the research agenda is focused on research questions about integration rather than methods used to evaluate it. It aims to enable the field to strengthen the evidence base for integrated development approaches. http://bit.ly/2cn1Q96

Integrated Development Evidence Map: This user-friendly, interactive map includes information on more than 500 impact evaluations of programmes that applied integrated, multisector approaches. Users can see the main trends in the evidence, plus easily search and identify evidence relevant to various areas of specific interest, including geographic region, study design, interventions by sector and outcomes.

fhi360integrationevidence.com/site/

SCALE+ is a systems-based methodology for approaching global challenges from multidisciplinary perspectives and with stakeholders from multiple sectors. It can help decision makers design and invest more efficiently in smart, enduring solutions to problems. Its purpose is to bring about broad and sustained collective impact. http://scaleplus.fhi360.org/

Make Me a Change Agent is a multi-sectoral SBCC curriculum http://bit.ly/29NINXv that can be used for any repeated behaviour and focuses on small doable actions to change behaviour.

Model for integration at schools
https://youtu.be/bS_LQJ2N7YY

The Missing Ingredients: Through an analysis of nutrition and WASH plans and policies in 13 countries, WaterAid and SHARE's 'The missing ingredients' report highlights why WASH is essential for nutrition, identifying gaps and ways of working – and where and how improvements must be made. http://bit.ly/2fwx7sQ

Case-studies on the experience of the SPRING project that can help others improve inter-sectoral collaboration. http://bit.ly/2fQoIEm

SNAP – Situational Needs Assessment and Planning: The tool provides options for multi-sectoral collaboration for Integrated health and wellness for communities, which can be directly applied in the context of improving WASH outcomes, ensuring better nutrition and thereby improved maternal and child health.

Annotated Bibliography providing a very brief summary and links to 25 articles related to WASH in development, MNCH, economics and so forth. http://bit.ly/1CQGklp

Essential Elements of Canada's International Development Assistance: a recent advocacy tool for integration of WASH across thematic priorities of Global Affairs Canada http://bit.ly/2fwFMLH

Theme 3 – Gaps to Fill

The main goal of the third discussion was to think through the gaps and barriers that still remain that prevent effective integration. The following ideas came out of the discussion:

- We need a set of simple, clear and harmonised messages for the first line worker, whether delivered from food security, WASH, social protection, nutrition or health workers, to embed integrated programming from the bottom up. The question is, can these messages be global and then contextualized per context or do situations vary too widely?
- There is a risk of overloading service providers with too many messages, so we need to work on simplifying messages and prioritizing the most important ones. This will be helped by having messages that cut across sectors.

- Integration should be added into pre-service training to support the enabling environment. This will help to prevent managers from looking at the addition of new messages as extra-work.
- Inter-sectoral coordination at national and subnational level is weak. Not only do meetings between sectors need to be prioritized, but moving from rhetoric to action also needs to be a priority.
- Generating momentum through joint advocacy is a key need to keep the integration conversation in the fore. A lack of will by policy makers and practitioners to work together to push the integration agenda is posing serious developmental setbacks.
- Mapping out institutions and their stakeholders on a country level is critical for integration and can result in an array of wonderful collaborative experiences.

Key Thoughts on Integration

Important points brought up during the discussion about integration

In the end, Integration is something like 60% common sense, 20% joint planning, and 20% integration of M&E and other tools.

Integration can be hard on an interpersonal level because experts from every sector often want to prioritize their specific focus (and often ego), leading to conflict and less integration then desirable.

Two simple WASH messages to add into nutrition programming are washing hands before preparing food and before feeding children, and keeping toddlers out of the dirt by placing them on mats.

Siloed funding streams and/or implementation targets are hard to overcome when prioritizing integration.

The Sustainable Development Goals are helping the push for more integration.

If we have to select "lead" sectors, it would probably have to be a sector that has discrete tangible outcomes, such as sanitation. The focus of powerful actors (policy makers, NGOs for transparency & governance, even funding agencies) is often on tangible outcomes because they are easier to track, so we should determine which sectors are inter-linked and identify sectors, which may not get adequate priority to ensure inclusion in the lead sector's planning, implementation and M&E.

For integrated goals of multiple sectors, we will need to adopt a pooled funding approach on all aspects, even if funding comes from only one sector.

Technical teams often have more difficulty with integration than field workers, who understand from their everyday work that you do not focus on WASH on Monday, agriculture on Tuesday, nutrition on Wednesday, etc.

Multi Criteria Decision Analysis (MCDA) is a good way of identifying and deciding when there are multiple priorities involved (even when stakeholders have different priorities).

Evidence for environmental enteropathy is strong, but research into how to prevent it is scant. We are anticipating results from the SHINE trials and the WASH Benefits trial.

In general, it seems like there is much advocacy work to be done by the WASH sector to raise the profile of WASH in the health sector and other areas of development.

Integration implies being able to use the same service delivery touch-point and the same service provider to deliver multiple services. Such combinations of services and messaging should ideally extend all the way up to the enabling environment—policies, guidelines, training curricula, etc.

Ideally, integration should lead to cost savings (from the use of a single service provider or service touch-point to provide multiple services) and better health and well-being outcomes of children (because of children receiving a complete package of services, rather than discreet services that may not address her/his holistic needs).

Contributors

Kirk Dearden, IMA World Health

Peter Hynes, World Vision/ BabyWASH Coalition

Krischan Makowka, WASH Delegate - Philippines

Kristie Urich, World Vision International

Sowmya Rajasekaran, Verity SmartLife Solutions

Kebede Eticha, World Health Organisation

Julie Truelove, WaterAid Canada

Tricia Petruney, FHI 360

Brain Mathew, Freelance WASH

Kwesi Crampah, ACDEP

Olufemi Aluko

Jona Toetzke, German Toilet Organisation

Samantha Clark, SPRING/ JSI

Angela Chaudhuri, Swasti

Jacques-Edouard Tiberghien, Partnerships in Practice

Emily Mates, Emergency Nutrition Network

Debjeet Sen, PATH

Hope Randall, PATH

Sandeep Srivastava, SES India

Oduro Donkor

Esther Silas

Menstrual Hygiene Management (MHM) in Schools – A neglected issue

Thematic leads: Dr. Marni Sommer (Columbia University Mailman School of Public Health); Thérèse Mahon (WaterAid)

Content

1 MHM and SDG indicators

Menstruation is defined as the periodic discharge of blood and mucosal tissue from the uterus, occurring approximately monthly from puberty to menopause in non-pregnant women. Girls usually menstruate for the first time between the age of 10 and 15. Learning about menstruation is thus vital for secondary school students, but it is not too early to raise awareness in elementary school.

Menstrual Hygiene Management (MHM) refers to the way in which women and girls deal with their menstruation. In 2012, JMP defined MHM as follows: "Women and adolescent girls are using a clean menstrual management material to absorb or collect menstrual blood, that can be changed in privacy as often as necessary for the duration of a menstrual period, using soap and water for washing the body as required, and having access to safe and convenient facilities to dispose of used menstrual management materials. They understand the basic facts linked to the menstrual cycle and how to manage it with dignity and without discomfort or fear."

About 52% of the female population is of reproductive age and most of them are menstruating every month. Thus, "menstruation is an integral and normal part of human life, indeed of human existence, and menstrual hygiene is fundamental to the dignity and well-being of women and girls and an important part of the basic hygiene, sanitation and reproductive health services to which every woman and girl has a right," the UN Special Rapporteur on the human right to safe drinking water and sanitation has declared ([#21053](#)).

Yet the reality on the ground – particularly in rural and economically deprived areas – often looks very different. Women and girls are frequently ashamed and embarrassed about their menstruation, do not want others to discover menstrual blood and are concerned about leakages and stains on their clothing. These fears are aggravated by a lack of proper sanitation facilities and materials that result in poor MHM practices which in turn have health related outcomes like increased stress and social outcomes, such as potentially interrupted engagement in the classroom.

Given the number of people affected by MHM in some way or another, it is striking that the topic has widely been neglected until recently. With the adoption of the Sustainable Development Goals (SDGs) in 2015, MHM as part of the broader topic of WASH in Schools (WinS) plays a role for the achievement of several of the declared goals. MHM is implicitly addressed in SDGs 4 and 6, as well as being an essential element for the attainment of several other goals, including SDG3 (health and well-being) and SDG5 (gender equality). Furthermore, MHM can contribute to the achievement of two out of the three goals of the Global Partnership for Education strategy, specifically Goal 1 on improved and more equitable learning

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outcomes, and Goal 2 on increased equity, gender equality, and inclusion. Experts agree that the education sector has a lead role to play in promoting non-discriminatory gender roles as well as inter-sectoral collaboration with the health sector (reproductive health) and the water sector, to make access to MHM a universal service available for all girls.

The JMP service ladders for monitoring WASH in Schools (WinS) in the SDGs place MHM at the level of advanced service (both for the area of sanitation and hygiene), while basic services include elements for good MHM practices as well (e.g. sex-separated toilets, (hand)washing facilities with soap). Both MHM facilities and MHM education and products provided are to be defined at the national level.

2 MHM and SuSanA's Working Group 7

SuSanA's working group 7 "WASH in Institutions (with gender and social aspects)" has the declared goal of raising general awareness for WASH beyond the household level, with a special focus on schools, by creating discussion fora and enhancing networking opportunities. In its work, the group always addresses the specific needs of both girls and boys. MHM in schools thus forms one of the issues that lie at the heart of WG7's work.

Led by Claudia Wendland (WECF) and Belinda Abraham (UNICEF), one of the important aspects of WG7's work is to show the link between improved school sanitation and academic performance particularly for the education of girls. WG7 operates on the premise that in sanitation, gender aspects have to be taken into account, as these are essential for sustainable sanitation and hygiene. Yet in many societies, women's views – as opposed to those of men - are systematically under-represented in decision-making bodies. This can have especially dire consequences for girls particularly at and after puberty who might miss school (particularly when they are menstruating) or even drop out altogether due to the lack of sanitary facilities, and/or the absence of separate girls' and boys' toilets.

Among the materials provided on the WG7's website are "Factsheet 7a – Sustainable Sanitation for Schools" and "Factsheet 7b – Gender perspective in sustainable sanitation." Furthermore, the working group hosted a meeting on the topic of WASH in schools at the Stockholm World Water Week 2016, which was followed by a two-week discussion on SuSanA's online forum (see synthesis here). During the meeting in Stockholm, facilitators Belinda Abraham and Bella Monse presented Volumes I and II of the recent publication "Making WASH in Schools more Sustainable" which showcase various approaches, both practical and innovative, to providing sustainable WASH solutions in schools around the world.

Four case stories deal with MHM in particular:
Case 5 India, Kenya, Bangladesh - Raising Awareness on Menstrual Hygiene Management / WASH United
Case 6 Uganda - Promotion of Locally Made Washable Pads / Days for Girls
Case 7 Tajikistan - Ecological Sanitation for Rural Tajikistan / ASDP Nau & WECF
Case 8 Kenya - Menstrual Cup Distribution and Health Education Program / Ruby Cup & Golden Girls Foundation.

More stories can be found on SuSanA website, which contains a collection of sustainable WASH in schools stories, among others.

In addition, in 2016, the Sector Programme Sustainable Sanitation of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) presented a (non-exhaustive) overview of the global MHM landscape comprised of academic studies and other publications, main actors and debates on the issue. The preliminary results were made more comprehensive through discussions with members of the Sustainable Sanitation Alliance (SuSanA) working group 7. The final product "WASH in Schools MHM Link Collection" – available for download here – is intended to serve all SuSanA partners and beyond as an overview of important information on MHM.

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3 SuSanA Thematic Discussion on MHM in Schools

From March 27 to April 21, 2017, SuSanA, in partnership with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) hosted a thematic discussion on the topic of Menstrual Hygiene Management (MHM). The four-week discussion took place on SuSanA's online forum and was entitled "Menstrual Hygiene Management in Schools – A neglected issue" and focused on two themes in particular:

THEME 1: Breaking the taboo around MHM (Thematic Lead: Dr. Marni Sommer)
THEME 2: Infrastructural barriers and how to monitor MHM (Thematic Lead: Thérèse Mahon)

As the two themes already highlight, the topic of (successful) menstrual hygiene management touches upon a variety of factors that have to be considered. Taboos, grounded in cultural and religious beliefs, have to be addressed as much as questions of how to provide appropriate facilities and sanitation materials as well as how to establish a functioning monitoring system on MHM in order to reliably track progress, and shortcomings, respectively. Thus, in order to be successfully tackled, the topic has to be approached from multiple angles.

This is supported by Thérèse Mahon who emphasizes that good MHM in schools requires a comprehensive approach including three main components:
(1) Providing pragmatic and accurate information and spaces where people can speak openly about menstruation, (2) availability of effective and affordable menstrual hygiene materials, (3) safe and private water, sanitation and hygiene facilities that are suitable for washing hands and bodies, and for changing, washing and disposing of menstrual hygiene materials as often as required.

While Theme I of the thematic discussion focuses on the first – and to some extent on the second – of these components, Theme II addresses the third component of infrastructure and how to monitor MHM in Schools (#21093), including questions such as how do we ensure basic sanitation in schools to support MHM?

What further improvements are essential to meet the MHM needs of all menstruating students and staff? How can these be addressed in resource-constrained settings? (#21093)

In fact, schools form a vital place for addressing menstrual hygiene management. Schools are by definition places of learning and education and thus an ideal environment to reach girls and young women and to provide them with accurate information on the menstruation cycle and reproductive health, hygiene and sanitation in general. Schools are thus also an ideal place to address taboos and misconceptions that exist globally around menstruation. Yet, as taboos are always grounded in a culture's belief system, it is important to address them in a culturally sensitive way. Therefore, the thematic discussion (also) aimed at discussing what such a culturally sensitive manner could look like in the case of MHM.

In the following, this report will provide a summary of the discussion on MHM, the main issues addressed as well as recommendations made. Experiences shared from different countries will be listed under the respective countries. The synthesis does not necessarily express all the standpoints that came up in the discussion nor can it take up all the issues raised during the course of the debate. If you are interested in participants' postings in closer detail, please refer to the individual posts as referenced by the post number.

Shortcomings and barriers to successful MHM to date

As Marni Sommer highlights in her opening post to Theme I (#21022), there exist to date several shortcomings with regard to MHM signified by various "gaps":

(1) A gap in menstruation-related information
This is also supported by Bernard Miti's experience in Zambia where a lack of understanding among girls on the biological process of menstruation exists and many girls have no formal information on menstruation prior to menarche (#21108).
Similarly, Joy Lynn Alegarbes from Huru International writes: As we all well know, studies

show that limited information and resources for menstrual hygiene management result in significant educational consequences for African girls, including poor academic performance and grade repetition. Coupled with the range of persistent social taboos surrounding menstruation in the region, this dramatically increases a girl's vulnerability to early sexual debut; unplanned pregnancy; child marriage; and sexually transmitted infections, including HIV (#21092).

(2) A gap in the provision of menstruation supplies
As Bernard Miti writes with regard to Zambia, there is limited access to affordable hygienic menstrual management materials; most girls from low-income households are not able to buy disposable sanitary pads and instead use pieces of old cloth or "chitenge"/"kitenge". In fact, 58% prefer to re-use old pieces of cloth because of their availability and affordability (#21108). While using cloth is not per se negative (considering there are many different types of cloth), it might not be as easy to use and manage, Marni Sommer comments.

(3) A gap in toilet facilities that meet menstruating girls and female teachers' needs in low and middle-income contexts (#21022)
47% of girls in rural areas in Zambia, for instance, do not go to school when they are menstruating because of poor sanitation and a lack of sanitary materials, among other reasons (#21108).

What continues to prevent the closing of these gaps are barriers that for the most part do not have their origin in a general lack of information on MHM, or menstruation supplies or appropriate toilet facilities (even this is also the case), but in what Marni Sommer refers to as a "culture of silence" around menstruation in many contexts (#21022). What we oftentimes experience is people's discomfort about exploring and openly talking about girls' (and women's) actual experiences with managing menstruation. This discomfort, which prevents women and girls from speaking out on the topic in turn hinders successfully addressing the challenges they face and coming up with potential solutions. Yet, why is there so much discomfort?

"A Culture of Silence": Identifying existing taboos

As the stories from many participants from different countries show, menstruation is a topic that – to a greater or lesser extent – is regarded as a taboo subject almost globally. Taboo is understood as a prohibition to approach or mention something regarded improper or unacceptable. Taboos result from social and other conventions and differ among different cultures and communities. Still, these differences yield a common outcome in the case of menstruation: a discomfort or even unwillingness to address the issue openly.

Given this, it is useful to try to identify the beliefs around menstruation with the respective societies in order to adjust one's communication accordingly and ultimately to attempt to break the taboo(s). Needless to say, this might be easier said than done considering how such belief systems are strongly and deeply grounded in a culture and passed on from generation to generation. Still, identifying and understanding cultural beliefs around MHM (and being respectful about their existence) can provide insights into why girls may be more or less comfortable talking openly about menstruation, their knowledge about managing their monthly blood flow, and its impact on their school experiences. As Marni Sommer stresses, being respectful of the existence of such beliefs and taboos in each new context is essential for devising solutions together with girls to help overcome the silence they may experience around the topic, and the barriers that hinder interventions being implemented in their schools and communities (#21022).

During the discussion participants listed several taboos. Recounting experiences from Malawi, Zambia, Bolivia, Nepal and Kenya, participants highlighted the following (behavioural) restrictions imposed on women during menstruation:

• Girls/Women are generally regarded as impure
• Girls/Women are concerned about the potential for others to use their menstrual blood or used cloths to perform acts of witchcraft on them (Malawi, #21053). Similarly, some regard

the distribution of MHM materials at school to be an act of Satanism and blood on the pads is believed to be used for ritual purposes. There are also rumours that girls who use pads go mad and die.

- Girls should avoid playing with males (Zambia, #21108).
- Girls/Women are forced to abstain from cooking and other household chores (Zambia, #21108).
- Girls/Women face restrictions on movement (including going to school in some instances) (Zambia, #21108).
- Girls/Women are not allowed to be around babies and children (Zambia, #21108).
- Girls/Women are not allowed to pray (Zambia #21108).
- Women should not touch plants and crops or harvest fruit, as plants will die (Bolivia, #21126; Kenya, #21066).
- Seclusion practices: women and girls are banished to a so-called Chauhut because it is believed they are "impure" (Nepal, #21066).
- Girls/Women face restrictions on washing and socializing (Malawi, #21053).
- No male should see menstruation blood (Pakistan, #21136).

Moreover, menstruation carries associations of being ready for marriage. Furthermore, girls are often absent from school during menstruation for fear of being noticed and ridiculed by other pupils, especially boys (#21108). In addition, girls are ashamed about their absorbent products; they do not like to admit that they use cloth, for example (#21126).

As participant Hina stresses, it is important to identify the exact taboo and not to impose one's own perception on the situation. This is a big danger when collecting data on MHM, which distorts results. Consequently, the collected data does not capture the exact taboos in place in a specific location but feeds into the creation of some "universal taboo" around MHM. Similarly, awareness raising methods should be precisely targeted at the respective community settings instead of employing a kind of "standard". Overall, such changes take time and this time should be granted (#21160).

Finally, Bella Monse also highlights the difficulty of addressing taboos around MHM. She

suggests that addressing (uncontroversial) infrastructural barriers first and then, only in a next step addressing access to information on MHM might be best (#21165).

MHM Stakeholders

Addressing MHM raises the question of stakeholders and whom to talk to in order to improve MHM in schools. Who might be the best people to address in a given country who can provide insights on existing taboos and the level of knowledge girls generally have about the monthly blood flow, among others? (#21022)

Discussion participants agreed that there are numerous stakeholders/focus groups that have to be engaged and that there are different levels of stakeholders (government, school administrators, communities, etc.), which have to be addressed in different ways (#21059). Among those are (1) technical authorities and authorities from the relevant sectors (sanitation, education, hygiene, etc.) (#21059) that are responsible for providing adequate facilities; (2) the direct users of sanitary products, i.e. the girls in school; (3) community stakeholders that can help provide girls with the menstrual supplies that they need; (4) parents/families who support (or don't support) girls and provide (or don't provide information) ; (5) school teachers and headmasters who support (or don't support) girls and provide (or don't provide information); (6) local community-based organizations (#21034); (7) local media; (8) community leaders/authorities like religious/spiritual leaders (#21204).

As Rachel from Transformation Textiles emphasizes, all of these are potential MHM champions and change agents. They need to be effectively activated and given easy access to replicate tools (#21034). Tere raises another important point. She writes that in order to break the silence it is necessary to look at MHM in a socio-ecological manner. That means that it is not sufficient to just address girls and adolescents but the greater community – as highlighted by the various stakeholders mentioned above – if feasible change with regard to MHM is to be attained (#21037).

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"Breaking the Taboo": A Note on methods, materials and engaging stakeholders

What are the best ways to approach the identified stakeholders? How can key stakeholders who influence girls' school-going and their everyday lives be engaged so that collective solutions can be devised? (#21022)

In addition, how have people/organizations in various cultural and social (and economic) contexts around the world approached the topic? (#21059)

During the discussion, various suggestions have been made on the methods (the 'how') to be used to promote MHM as well as on the topics that should be of particular importance (the 'what'). In addition, several participants have provided examples from their respective countries.

Methods

(1) Participatory approaches (target group: girls)

Marni Sommer suggests that participatory approaches are a good way for girls to open up. Spaces where girls can write or draw freely without their names being attached to their work can help increase the level of comfort with sharing personal experiences (#21022). These approaches are also a good way to learn about girls' perceptions. If the aim is to engage girls, puberty books are a good approach, for instance. They are simple to use and not expensive.

(1) Audio-visual testimonies (target groups: adults, such as technicians, authorities, parents)

Tere writes that in her experience audio-visual testimonies are an effective way to engage adults, i.e. technicians, authorities and parents, on MHM due to the value and credibility attributed to such a testimony (#21037).

(2) Animated audio-visuals (target group: kids, adolescents)

For adolescents, Tere suggests that animated audio-visuals on MHM are better suited as individuals are not shown and the animation makes it more playful and entertaining for young people. This helps them to loosen up on such a sensitive topic (#21037).

(1) 'Edutainment' (target group: children and young adults)

If children and young adults are to be engaged in MHM, producing material that is both educational AND entertaining for them is key (#21037).

(2) Embracing what's there (target group: girls, also whole community)

Brenda Mbaja suggests that the right approach to countering taboos and the culture of silence is to 'embrace' what the community thinks and try to work with it. This includes 'embracing' the sanitary materials that are in use. No one should feel ashamed about what absorbent they use. Only then will girls and women feel comfortable talking about MHM. Overall, approaches should be adopted that do not sound like they are fighting against the local culture and consider the existing taboos as backwards but that are inclusive of the cultures (#21066, #21077).

(3) Training by peers (target group: girls, also boys)

Camilla Wirseen highlights that communication is key in most situations. She points to the fact that a generational gap might exist, meaning that teachers and mothers/parents are less suited to talk with girls about menstruation and that trainers who are peers to the girls might be more suitable (#21052). That is why Wirseen's The Cup Foundation works with trainers who are almost peers to the girls they train (they train boys aged 13-16 in schools as well). They are all young women, 20-30 years old who have shared similar challenges to the girls they train and grown up in similar environments. This creates an understanding and trust among the trainers and the girls. The young women are fully aware of existing taboos in the community and the society (#21052). The experience that girls are not eager to speak with female teachers and/or mothers – for various reasons – is confirmed by Marni Sommer who agrees that finding contextually appropriate solutions, identified through direct exchanges with girls (along with understanding the perspectives of adults in their lives) is essential (#21058).

(7) Associate with local university
Tere from Bolivia writes that a beneficial effort to open the topic and overcome taboos has been to train local personnel and to associate with a local university. This has a double benefit: on the one hand, it facilitates cultural sensitivity and specific knowledge of the context, language and symbols; on the other hand, knowledge and capacities are set up locally and are permanent (#21037).

Content

(1) Hygiene promotion as a gateway to MHM
Addressing MHM in schools, Tere recounts that in her experience the best way is to start by promoting hygiene (key practices such as hand washing, safe water consumption, etc.) and then gradually introduce MHM (#21037). Similarly, Bella Monse argues that infrastructural barriers should be addressed first, access to information on MHM second (#21165)

(2) Self-Confidence
Huru International is working with youth facilitators that strongly focus on issues related to self-esteem and self-confidence. The organization aims at having meaningful discussions about self-esteem, confidence, being assertive and the ability to make decisions (#21092).

Specific examples

(1) Mini MHM Festivals (Brighter Communities Worldwide (BCW), Transformation Textiles)
A so-called mini MHM festival was organized in celebration of Menstrual Hygiene Day 2016 on May 28 in Kenya. The event "edutained" more than 1,000 participants and used a variety of tools and games with a limited budget ($200). For example, a copy of Marni Sommer's "Grow and Know" puberty book series was printed for participants to read. Other tools and activities – which can be found here – included different stations where girls could work through their own math of how much menses cost (the math station), a station that illustrated the menstruation cycle (the biology station), and a station that taught participants how to properly take care of reusables (wash & care station)

(#21034). In addition, Transformation Textiles made these resources available on a free MHM mobile app for everyone to create their own mini-MHM festival.

(2) "Girls for Girls" program (Brighter Communities Worldwide (BCW))
The program fosters health clubs in each of the schools in which they function. The girls who attend are introduced to a savings club, which provides them 3 year Reusable Dignity Kits. The girls pay for a small portion of the cost of the Dignity Kit, but that value transaction is critical to empowerment, ownership and buying-in (#21034).

(3) Behaviour Change Manual (Helvetas)
F H Mughal points to a Behaviour Change Manual by Helvetas (#21225). The Manual is available for download here.

Operation & Maintenance

As Thérèse Mahon points out, a critical challenge for those working on WASH in Schools is ensuring facilities are kept clean and well maintained. Clean toilets are an essential prerequisite for successful MHM, as girls report not wanting to use toilets to change their sanitary materials when they are dirty or lack privacy.

Furthermore, MHM requires additional O&M procedures, specifically for the complete disposal of used materials. However, the successful expansion of services, for both disposable and reusable materials – including the provision of bins, emptying, burial or incineration – are often lacking. Moreover, there is insufficient evidence and guidance for what constitutes culturally acceptable and environmentally safe disposal; or what is needed for reusables (#21093).

This view is confirmed by Linda Lilian's experiences from Uganda, where the major focus is on how girls can get access to menstrual pads yet the management of these pads is oftentimes neglected. Commonly, there are lined latrines in schools with no provision for their emptying. Yet with disposable pads, there comes the need for disposing and the latrines rank high for pad disposal and consequently fill

up fast. Linda Lilian thus sees an urgency for incinerators as part of the provision for menstrual pad management.

Such incinerators, however, are not always a (good) solution either. Thérèse Mahon writes that sometimes, even though an incinerator existed, girls did not want to throw used cloths in it. Instead, they took them home to wash first and sometimes brought them back to school to dispose of. The issue was about leaving something with their blood in the incinerator chamber as well as the belief that no male should see menstruation blood (#21119, #21136). Moreover, there is a lot of controversy about the adoption and use of such incinerators, Mahon notices. In Nepal, for example, incinerators for MHM in schools are being provided by NGOs and through the education department as part of the commitment towards girl-friendly toilets in schools. However, this is being criticized from the health and environment sectors (#21118). Similarly, Hina Kau and J. Pierre Muhoza reports on the environmental challenges such incinerators pose (#21136, #21152). Muhoza regards them not to be a good option for sanitary pads unless they fulfil incinerator's gas emission standards (#21152).

Given these difficulties with the disposal of such pads – in addition to the difficulties of achieving behavioural change from using re-usable options (i.e. cloth) – Sahrari argues that reusable options should be seen as a good (better?) option, if the possibility for regular change, cleaning and if necessary drying of such options are provided at school (#21095). This in turn raised the question whether drying spaces at the schools are actually needed, i.e. whether girls will actually use them to hang their washed reusable pads. Thérèse Mahon, for instance, points to some of WaterAid's earlier projects where rails for hanging washed reusable cloths to dry were provided but girls did not want to leave their cloths in a space used by others (#21119). Brenda Mbaja raises a similar concern: she thinks that most girls would feel very uncomfortable hanging used clothes in a public space. In some places, as for example in her community in Kenya, it is a taboo for men and boys to see a girl's undergarments (#21137). The same is true for Nigeria as Danny Ogwo writes. Most girls and women will spread their underwear in the bathroom or toilet as it is regarded uncultured to have one's underwear seen in public (#21139).

Finally, Danny Ogwo writes that to ensure basic sanitation facilities to support MHM in schools, the education supervisory boards should have an active role in inspecting sanitary facilities in schools as part of monitoring and supervising indicators #21120). He also sees the need for community participation and the integration of the parents and teachers association (#21120). Furthermore, he writes that successful approaches to infrastructure maintenance understand MHM as multi-sectoral in its approach. Head teachers, mechanics, waste management officers, health personnel, the media, traditional and religious leaders – they all play a role in successful MHM (#21120). Being responsible for keeping sanitation facilities clean cannot be the task of the students (#21139).

Monitoring

As attention to MHM in schools has grown, due to the efforts of many individuals and organizations around the world, Thérèse Mahon writes that it is also essential that we have appropriate monitoring processes in place to understand what works and what does not. To target resources and track progress and to generate evidence on the outcomes of MHM interventions to advocate for giving greater priority to MHM in schools (#21093).

In this regard, it is also important to point to the 2016 WASH in Schools International Learning Exchange (ILE) in Jakarta, which included a thematic session on MHM, led by Thérèse Mahon. For more information, see the Outcome Document of the ILE.

WinS International Learning Exchange (ILE) 2016 MHM: Key Learnings
- Addressing MHM in Schools can contribute towards transforming gender roles and improving education outcomes for girls; it is therefore an important element of WASH in Schools and proxy indicator of progress in gender equality in education;

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- The SDG definition for basic sanitation (including gender-separate toilets) and hygiene (including hand-washing facilities with water and soap) can support basic menstrual hygiene needs and must be part of minimum standards;
- The expanded SDG indicators for WinS include specific questions to support MHM-related data collection in EMIS;
- All opportunities for monitoring MHM services as part of WinS, as well as strengthening the evidence for improvements in knowledge, attitudes and practices should be used to ensure MHM is achieving its desired goals.

Source: ILE Jakarta Outcome Document

At the global level, SDG4 on education includes WASH in Schools. Recent guidance has been produced on targets and indicators for this, including indicators indirectly and directly related to MHM in Schools (see https://washdata.org/).

The Global Task Team for Monitoring WASH in Schools in the SDGs, convened by the JMP, developed a framework for monitoring WinS in the SDGs. While MHM is not directly addressed in the SDG WinS core indicators, certain core indicators can be used as proxies for girls' ability to manage their menstruation at school. The expanded indicators and questions, however, explicitly address MHM and countries are encouraged to use them.

The expanded questions are suggestions for advanced national monitoring systems but the JMP will not report on them annually. In case expanded indicators are to be included in an advanced national WinS monitoring system, MHM will be a priority. However, there are also other national survey opportunities where aspects of MHM may be included. Generally, outcomes of MHM (as well as WASH-related outcomes), such as improved confidence or empowerment, are difficult to measure and report on nationally/globally and were thus not included in the JMP monitoring framework.

Core indicators	Expanded indicators	
Core indicators related to MHM	Expanded indicators specific for MHM	Expanded indicators related to MHM
S3. Are the toilets/latrines separate for girls and boys? H1. Are there handwashing facilities at the school? H2. Are both soap and water currently available at the handwashing facilities?	XS1. Is water and soap available in the girls' toilet cubicles for menstrual hygiene management? XS2. Are there covered bins for disposal of menstrual hygiene materials in girls' toilets? XS3. Are there disposal mechanisms for menstrual hygiene waste at the school? XH6. Which of the following provisions for menstrual hygiene management (MHM) are available at the school? Bathing areas MHM materials (pads, etc.) MHM education Other (specify)	XS4/XS5. Cleanliness of toilets XS6-XS8. Accessibility and location of toilets XS9. When students are allowed to use toilets XS11. Functional lighting in toilets XH7. Solid waste management XH6. Bathing spaces in boarding schools

Fig. 1: Suggested SDG WinS core and expanded indicators for monitoring MHM under the SDGs

Country Reports

Bolivia
Discussion participant Tere reports from Bolivia where the introduction of MHM is a slow process. Silence around menstruation exists not only within communities, but also among the institutions, authorities and sectorial technicians that should be promoting information and knowledge (#21037).

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Eastern Europe and the Caucasus

As Claudia Wendland from WECF reports, there is a big lack of awareness and information about MHM among school girls in Eastern Europe and the Caucasus. WECF provides a Train the Teachers manual, which provides guidance to teachers on how to realize an interactive education on water and sanitation and how to turn children into change agents (#21032– see bibliography). In their work, WECF generally targets youth between 12-16 years old. The organization conducted a survey in rural schools in Eastern Europe, the Caucasus and Central Asia, including questions on MHM. 50% of the girls replied that they skip school during menstruation when there are pit latrines (and 30% in case of ecosan school toilets) (#21062).

Germany

Elisabeth von Münch notes that in general, girls and young women are well informed. They learn about menstruation in school (starting from age 9). Overall, the taboo about menstruation as such is as relatively low. Girls and women all have access to hygiene products. While there are few general taboos, there is still huge embarrassment if one leaks and bloodstains become visible. Most men are OK with knowing when their girlfriend or wife is menstruating. (#21168).

India

In her TED talk quoted in the discussion, Aditi Gupta talks about taboos around menstruation in India. She lists the following social restrictions that were imposed upon her: She was not allowed to touch or eat pickles, she was not allowed to sit on the sofa or other family members' beds, she had to wash her bed sheets after every period even if they were not stained, she was considered impure and forbidden from worshipping or touching any object of religious importance. She also points out, that – ironically – it is often older women who impose such restrictions on younger women, having grown accustomed to the taboos and thus accepting them as norms. "Menstrupedia Comic" came out of her research to educate girls (#21074).

Kenya

Camilla Wirseen reports that in Kenya students are often afraid of their teachers and mothers. Many times, mothers do not even know that their daughters have started their menarche. That is why, Wirseen's The Cup Foundation works with trainers who are almost peers to the girls (i.e. young women between 20-30 years old) (#21052).

MHM in refugee camps

Kakuma Refugee Camp

Rachel from Transformation Textiles reports on the organization's pilot in Kakuma Refugee Camp, Kenya. She stresses the refugees' incredible resilience and entrepreneurship. Despite them having the least access to water, to WASH facilities, and to schools, they are gathering in women's groups, market to each other, educate each other and everything with the few tools that Transformation Textiles provided.

Rachel suggests that international partners should support the entrepreneurship of the refugees by buying low cost underwear and cheap disposable pads from them. Yet trying to navigate systems of procurement seems very difficult, Rachel reports. (#21064).

Brenda Mbaja tells about her own village, a small village on the boarder of West-Pokot, where she has heard repeatedly girls cautioning each other not to try farming, get vegetables from the farm, or touch any crops because the crops will dry. As Brenda recounts, her community considers any menstruating woman impure and no one talks about menses. In fact, these beliefs are so strong, that even after being informed, people will still refrain from religious practices, for example (#21066).

Joy Lynn Alegarbes reports on the work of Huru International in Kenya (#21092). The organization provides vulnerable girls with reusable sanitary pad kits and life skills education with the aim to reduce school absenteeism. Since 2008, Huru International has reached over 140,000 girls in resource-constrained settings with Huru Kits. The organization also works extensively with boys, men, families and the broader community.

Huru International

Huru International conducted a survey in Kenya and 100% of the girls indicated that they had missed school for at least one day due to menstruation related challenges. 73% of these girls reported missing three days or more per month due to lack of access to sanitary protection, which amounts to approx. 24 school days each year per girl (#21092). 40% of girls surveyed reported "embarrassment" as a menstruation-related factor that contributes to absenteeism, demonstrating the ongoing need for life skills education to build confidence and self-esteem.

The provision of Huru Kits and life skills education reduces menstruation-related school absenteeism by as much as 85 percent. It also translates to financial relief for families, who no longer have to set aside money to purchase sanitary pads every month (#21092).

For more information on the work of Huru International, see https://huruinternational.org/.

Malawi

In his post, F H Mughal highlights the research on Malawi from SHARE's policy brief on MHM. Challenges and barriers related to menstrual hygiene management for school girls in Malawi include poor sanitation facilities and infrastructure, cultural beliefs around menstruation and a lack of knowledge and education around menstruation. SHARE's research found that girls in Malawi could be absent from school 12-36 days per year due to MHM issues (#21053).

Mali

Mamadou Lamine Diarra shares some lessons from WaterAid's Mali MHM project in schools. Mamadou talks about a difficult shift towards MHM in schools in Mali but also writes that schools accept and understand MHM as a component of life skills such as HIV/Aids education and reproductive health education. Yet to successfully implement MHM in schools, cultural and pedagogical approaches are needed as well as the provision of WASH services and MHM kits in order to build schools' capacities. Within the context of the decentralization of the education in Mali and

ambient poverty, this, however, is not always the case. In fact, the current capacities of public schools in Mali with regard to MHM are weak: the subject is still taboo, teachers are insufficiently trained and there are insufficient teaching materials, there is a lack of sanitary equipment and sanitary infrastructure, among others.

However, over the course of the past two years, some schools in Bamako district and Kati (a small town near Bamako) have taken up the challenge of MHM in schools supported by the country program and its partners (#21335). The approach chosen works first with an MHM teacher at school, who is a peer-appointed female teacher. This is necessary to develop a relationship of trust and confidentiality between pupils and the teacher and it is regarded as pivotal. This teacher plays an important role in school leadership to address the taboo of MHM at school.

Secondly, the selected schools employ artistic expression, such as drama, to facilitate breaking the silence during training sessions.

As classroom sessions in four primary schools in the district of Bamako und Kati showed, most of the menstruating girls still use pieces of old cloth during their menstruation (for its availability without cost) and they seldom talk to their so-called aunt *n'terini* about their intimacy or their absence during the menstruation period. This shows how important it is to build a relationship of trust.

Finally, he reports that hygiene in schools still suffers from some bad practices due to poor governance of WASH in schools. This is due to the malfunctioning of the main governing bodies of WASH in schools: school management committees, hygiene clubs, pupils' parents and/or mother organizations. In addition, there is a bad relationship between local authorities, communities and schools (#21335).

Nepal

Brenda Mbaja reports from a desk study for GIZ to Explore MHM Approaches and Initiatives in Nepal that she is currently conducting (#21066). In the far-western Nepal region, the major challenge is the seclusion practices

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(Chhaupadi). Here, menstruating women and girls are banished to a Chauhut because it is believed they are 'impure'. There are many risks on the banished girls and women face and there have been incidences of deaths as well. Despite the many efforts to fight this taboo, for example declaring Chhaupadi illegal by the government and demolishing Chauhuts, cases of seclusion practices are still on going. She even reports of cases where women themselves are displeased with the idea of demolishing the huts because they are worried that the 'gods will be angered'. (#21066).

Marni Sommer also points to the current (or just completed) landscaping of MHM work in Nepal by PSI and points to WaterAid's and NFCC's work on MHM in Nepal (#21082).

Niger
F H Mugal points to a publication by UN Women and WSSCC from January 2017 entitled "Menstrual Hygiene Management: the experience of nomadic and sedentary populations in Niger". He points to the study's findings that if better informed, women and girls can fully participate in society and the economy and lead active lives in school, work and leisure. Consequently, MHM must be clearly articulated in public policies and national strategies with associated budgets and monitoring systems. The capacity to implement such policies is as essential as the services that women and girls can use with total confidence. F H Mugal emphasizes the importance of effective advocacy. (#21213).

Nigeria
Iroegbu Daniel Ifegwu from Nigeria, founder of the Daniel Iroegbu Global Health Foundation reports on his organization's project "Breaking the Silence on Menstruation" in schools. The project engages the education sector and professionals in media, traditional rulers/councils/community leaders and older women (women's groups) on menstrual hygiene management using cloth. He observes that cooperation from the schools, older women and the professional engagement are essential to achieving SDG6 and its targets on water and sanitation. He also reports that his organization has reached over 25,000 girls and boys by entering into a partnership with the Universal

Basic Education Board of Enugu State Government to reach over 1,223 primary schools and over 1,000 junior primary schools with MHM and reproductive health education. He regards the issue of engaging boys and schoolteachers in breaking the silence on menstruation in schools as one of the major challenges. Boys would tease girls if, e.g., they see stains on their dresses which led many girls not to return to school (#21085).

Iroegbu's organization also engages women in journalism to raise public awareness on the challenges faced by these young women and girls in school. On the level of the education sector, he collaborated with the Post-Primary School Management Board (PPSMB) and he paid visits to the Special Advisors to the Chairman of the Board, Ministry Commissioner, Special Adviser to the Governor on Youth, and other actors/stakeholders to report on the challenges of girls with regard to MHM. The organization also intends to engage the traditional rulers' councils as well as healthcare professionals and religious groups (#21091).

The organization engages kids between the ages of 7-10 (boys and girls), i.e. before menstruation sets in and teenagers 11-19 to teach them about sanitary materials and sexual and reproductive health, among others. The organization also organizes community education nights to educate the community about public health issues, MHM and WASH. The major challenge identified is inactive participation and involvement of men during these nights (#21091). Yet there is hope that this will change within the next generations, as there is good attendance among boys.

Pakistan
As F H Mughal writes, Pakistan is a Muslim country and people shy away from the topic of menstruation. Due to Muslim traditions, men are simply out of the topic – meaning that they simply cannot talk to women about the topic, as it will be considered offensive. In addition, female teachers in school, probably due to a lack of effective advocacy, do not talk to girl students about this topic (#21053).

Muhammad Waseem writes that while it is good to raise body awareness, particularly regarding

MHM, one needs to remember that parents will not allow their daughters to talk about MHM in schools and thus providing MHM awareness in schools would add fuel to the fire. Parents already think that a Western agenda is taught in schools and MHM awareness would be considered a part of the Western agenda as talking about menstruation is considered against religious and social norms. In Pakistan, even mothers are not supposed to talk to their daughters about menstruation. Girls talking about MHM, even amongst themselves, are considered as liberal western girls who face hurdles in getting arranged marriages (#21133).

Tanzania

Marni Sommer tells about the piloting of an MHM in Emergencies toolkit in NW Tanzania, a collaborative effort by Columbia University and the International Rescue Committee. She writes that it is essential to understand the perspective of different cultural groups in each emergency context. Many emergency response staff feel discomfort engaging on the topic directly with adolescent girls and women. They are eager to address the issue, but also eager to have guidance on appropriate ways to approach such a sensitive topic (#21059).

Uganda

Linda Lilian talks about Uganda where the major focus is on how girls can get access to menstrual pads yet it is oftentimes neglected how these pads are to be managed. Commonly, there are lined latrines in schools with no provision for emptying. Yet with disposable pads, there comes the need for disposing and the latrines rank high for pad disposal and consequently fill up fast (#21060).

UK

Susannah Clemence reports on MHM-related problems in the UK, including extreme poverty hidden inside homes, disposal of pads and especially tampons which clog drains and litter beaches, social taboos which inhibit adaptive change and encourage young women towards hormone treatments to minimize or stop menstruation (#21161).

USA

Elisabeth von Münch shares the story that in the US it is now reasonably common to take hormone pills that have a dual purpose:

contraception and menstrual suppression. The thinking is that if there is no medical evidence of negative effects of not menstruating then why go through the hassle if one is on hormonal birth control anyway. So apparently, lots of women in the US, and probably other countries, do away with the monthly issues of menstruation and live without menstruating (#21168).

Marni Sommer also points to a new publication of hers in the Journal of Adolescent Health, which is a systematic review of the evidence on the experiences of girls in low-income contexts in the US around puberty/menstruation. Although there is insufficient research on this issue, there does appear to be a gap in information and support, and many of the challenges we find in other countries such as not receiving adequate, practical guidance are present in the US as well (#21176).

Zambia

Dan Campbell mentions the so-called SPLASH Menstrual Hygiene Management Toolkit designed by the USAID WASHplus project with the goal of helping teachers, school health and nutrition (SHN) coordinators, and other school personnel in Zambian primary schools to carry out MHM programs or activities in their schools. The toolkit is organized into three sections: (1) basic information on puberty, menstruation, and MHM; (2) a checklist for schools to use to ensure that they have all the elements needed for a good MHM program; (3) interactive games and activities that will engage students to learn about MHM, including an activity that shows students how they can make their own pads or sanitary towels.

Bernard Miti from the Zambia WASH Advocacy Network writes that a pilot study was carried out in 2013 in rural parts of eastern Luapula, Zambia's northern central province and it was estimated that girls missed up to 36 days per year with the majority (81% of girls who were interviewed) missing school for the entire period of their menstruation (#21108). He sees three main shortcomings as being responsible for this trend: limited knowledge of MHM (girls e.g. have no formal information on menstruation prior to menarche), viewing menstruation as a taboo and thus having lots of myths and misconceptions surrounding it as well as lack of

access to suitable facilities and adequate materials which make MHM difficult (#21108). He mentions the following infrastructural barriers:
- There is insufficient access to safe and private toilets; toilets may be dirty and smell; there is a lack of water and soap for personal hygiene.
- Some schools do not have separate toilets for girls and boys, and most do not have changing or washing rooms.
- Girls do not have appropriate facilities for disposing of used menstrual management materials; therefore, most (77%) girls used pit latrines as a means of disposal.

Lack of washing tabs/basins, lack of water, lack of pads at school (#21109).

Recommendations

(1) Identify existing taboos and be respectful of such beliefs

It is essential to understand the perspective of the different cultural groups (#21059). However, be aware of "researcher's bias" when identifying taboos. Make sure to exactly outline and understand the taboo so that your behaviour change campaign is spot-on/tailor-made instead of following a generic standard (#21160). In addition, approaches should be inclusive of the target cultures. Do not fight against the culture or consider their taboos as backwards (#21066).

(2) Identify the right stakeholders/ spokespersons who are able to break existing taboos

Do not only focus on girls. Including the surrounding community members (boys, parents, teachers, elders/informal leaders) is essential to fight the taboos around menstruation (#21052, #21092). Beware of the saying "You do not need to be a woman to champion women's issues." Create information materials that can also be used by boys, for example (an inspiration can be the two boys' puberty books available here: www.grow-andknow.org/books.html).

3. *Both hardware (i.e. providing pads or other absorbents; improving sanitation facilities) and software are important*

4. *Communication is key*

Girls need to start talking about menstruation and the related problems in order to break the taboo (#21032). Moreover, good communication includes effective advocacy (#21213): MHM must be clearly articulated in public policies and national strategies with associated budgets and monitoring systems. In addition, good communication means being very sensitive to how we define issues in the communities. Simply employing the term MHM might raise suspicion that some kind of western idea is being imposed on said community with no respect or value for its culture. Instead, by looking at issues from the community's point of view and understanding the angle of the issues is very beneficial to efforts aimed at eradicating such taboos and practices.

(5) Information is key

Only when schoolchildren know about their rights, e.g. on adequate school sanitation, can they claim them (#21032). Only when schoolchildren know about their own bodies and the changes of puberty, can they feel confident in their bodies. This includes making informational materials appealing to children and teenagers (#21037). Moreover, women need to be educated/informed about safe, low-cost MHM materials (#21053).

(6) Train local human resources to overcome taboos (#21037)

This will increase their empowerment and can foster entrepreneurship around MHM (#21064).

(7) Use issues of (general) hygiene (hand washing, safe water consumption, etc.) as an entry point for addressing MHM (#21037).

(8) Trainers who are almost peers might be more suitable than adults.

Girls need to be able to relate to someone in order to build trust. This is oftentimes easier with (almost) peers (#21052). Generally, find

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contextually appropriate solutions, identified through direct exchanges with girls! (#21059).

(9) Sanitation facilities have to be designed in a way that is sensitive to the needs of all of their users (#21053).

Solutions should be provided that are based on what people have. Not everyone can afford reusable pads or non-reusable pads. Advice should be given on how to keep the respective absorbent a woman uses clean, be it a rag, a cloth or something else (#21066). Put differently, it is not only about providing sanitary materials to girls and women but helping them get local, sustainable solutions where necessary (#21077). This increases empowerment. Make women and girls feel good about whatever method they are using. Make them feel empowered about managing their menstruation successfully, including how to wash/dry their materials (#21082).

(10) Strengthening the capacity of schools is an indispensable prerequisite for successful MHM: teacher training, school facilities (latrines separated, drinking water), MHM first help kits (sanitary protection products/towel, pharmacy) (#21335).

Address infrastructural barriers first; access to information on MHM second. The more girls and women are able to manage their menses in a dignified manner the more they will feel comfortable discussing a subject that is often associated with shame and embarrassment. Moreover, given how difficult it can be to touch on the MHM taboos (as awareness-raising and discussion on MHM is not wanted or appreciated), addressing infrastructural barriers which are not controversial might be best, i.e. cleanliness, access to privacy, water, soap, trash bins. MHM would therefore be approached as a subsequent step. It is best provided by the Ministry of Education, which has the mandate and the opportunity to take the topic forward in a culturally sensitive manner and reach the youth. The distribution of culturally appropriate brochures or booklets supports girls and boys understanding of their puberty and the same booklets help teachers (and parents) to gain knowledge and find words and a language to communicate about MHM (#21165).

Contributors

NAME OF CONTRIBUTOR	ORGANIZATION	COUNTRY
Aashkasoni	Urban Management Centre (UMC)	India
Alegarbes, Joy Lynn	Huru International	Kenya
Amongin, Irene	UNICEF	USA
Büürma, Mintje	GIZ (Discussion Coordinator)	Germany
Campbell, Dan	USAID	USA
Clemence, Susannah	Independent Researcher	UK
Diarra, Mamadou Lamine	WaterAid	Mali
Durrans, Sophie	Share	United Kingdom
Iroegbu, Daniel Ifegwu	Daniel Iroegbu Global Health Foundation	Nigeria
Jurga, Ina	WASH United	Germany
Kaiser, Danielle I.	Menstrual Health Hub	Germany
Kausar, Hina	WaterAid	Pakistan
Mahon, Thérèse	WaterAid	UK
Mbaja, Brenda	GIZ	Kenya
Monse, Bella	GIZ (Discussion Coordinator)	Philippines
von Münch, Elisabeth	Independent Consultant	Germany
Mughal, F H		Pakistan
Muhoza, J. Pierre	University of Science and Technology Beijing	China
Rukmini		India
Sahrari		India
Schlenk, Jan	GIZ (Discussion Coordinator)	Germany
Lilian, Linda	SIMAVI	Uganda
Sommer, Marni	Colombia University	USA
Starkey, Rachel	Transformation Textiles	Canada
Tere	UNICEF	Bolivia
Waseem, Muhammad	GIZ	Pakistan
Wendland, Claudia	WECF	Germany
Wirseen, Camilla	The Cup Foundation	Kenya
Yamakoshi, Brooke	UNICEF	USA

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