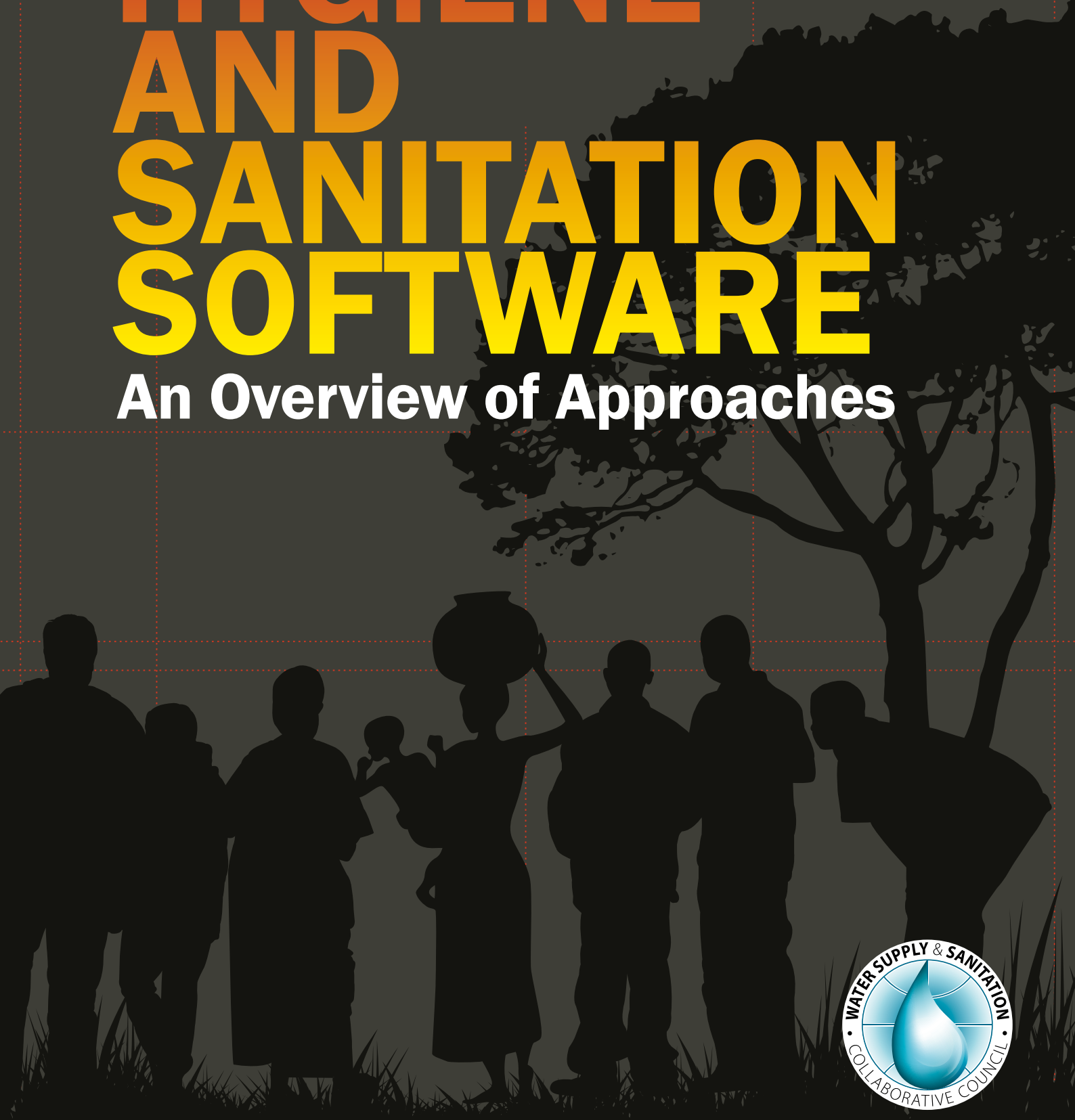
HYGIENE AND SANITATION SOFTWARE

An Overview of Approaches



WATER SUPPLY & SANITATION COLLABORATIVE COUNCIL

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LIST OF ABBREVIATIONS

ADB	Asian Development Bank
AED	Academy for Educational Development
AHEAD	Applied Health Education and Development (NGO in Zimbabwe)
AMCOW	African Ministerial Conference on Water
APL	Above Poverty Line
ARI	Acute Respiratory Infection
BASICS	Basic Support for Institutionalizing Child Survival Project
BNWP	Bank-Netherlands Water Partnership
BoH	Bureau of Health
BPL	Below Poverty Line
BRAC	Bangladesh Rural Advancement Committee
CAP	Community Action Planning
CATS	Community Approaches to Total Sanitation
CIDA	Canadian International Development Agency
CBO	Community-Based Organisation
CDC	U.S. Centers for Disease Control and Prevention
CHAST	Child Hygiene and Sanitation Training
CHC	Community Health Club
CLBSA	Community-Led Basic Sanitation for All
CLTS	Community-Led Total Sanitation
CRSP	Central Rural Sanitation Programme (in India)
CtC (and CTC)	Child-to-Child approach
DALY	Disability Adjusted Life Year
DANIDA	Danish International Development Agency
DFID	Department for International Development, United Kingdom
DGIS	Netherlands Directorate-General of Development Cooperation
DISHARI	Decentralised Integrated Sanitation, Hygiene and Reform Initiative
DPHE	Department of Public Health Engineering
EASan	East Asian Conference on Sanitation and Hygiene
EAWAG	Swiss Federal Institute of Aquatic Science and Technology
EHP	Environmental Health Project
FINNIDA	Finnish International Development Agency
FOAM	Focus on Opportunity, Ability and Motivation
FRESH	Focusing Resources on Effective School Health
GEM	Girl's education movement
GSUHBCP	Global Scaling-Up Handwashing Behaviour Change Project
GSUSP	Global Scaling-Up Sanitation Project
GWP	Global Water Partnership
HCES	Household-Centred Environmental Sanitation
HIF	Hygiene Improvement Framework
HIP	Hygiene Improvement Project
HWTS	Household Water Treatment and Safe Storage
HWWS	Handwashing With Soap
IDE	International Development Enterprises
IDS	Institute of Development Studies
IEC	Information, Education and Communication
IFH	International Scientific Forum on Home Hygiene
IIED	International Institute for Environment and Development
IRC	International Water and Sanitation Centre
ISSDP	Indonesia Sanitation Sector Development Program
IWA	International Water Association
JMP	Joint Monitoring Programme
KfW	German development bank
LGI	Local Government Institution
LSHTM	London School of Hygiene and Tropical Medicine
MDG	Millennium Development Goal
MEP	Minimum Evaluation Procedures
MoH	Ministry of Health
MPA	Methodology for Participatory Assessment
NEWAH	Nepal Water for Health
NETWAS	Network for Water and Sanitation
NGO	Non-Governmental Organisation
NORAD	Norwegian Agency for International Development
OD	Open defecation
ODF	Open defecation free
ONEA	National Water and Sanitation Office, Burkina Faso
PADEAR	Assistance Program for the Development of the Water Supply and Sanitation Sector in Rural Areas (in Benin)
PHA	National Rural Sanitation and Hygiene Promotion Program, Benin
PHAST	Participatory Hygiene and Sanitation Transformation

PLM	Programa de Latrinas Melhoradas
POUZN	Point-of-Use Water Disinfection and Zinc Treatment
PPPHW	Public-Private Partnership for Handwashing with Soap
PRA	Participatory Rural Appraisal
PROWESS	Promotion of the Role of Women in Water and Environmental Sanitation Services
PSI	Population Services International
RiPPLE	Research-Inspired Policy and Practice
RKMLP	Ramakrishna Mission Lokshiksha Parishad
RRA	Rapid Rural Appraisal
RSM	Rural Sanitary Mart
RWSG	Regional Water and Sanitation Group
SACOSAN	South Asian Conference on Sanitation
SaniFOAM	Sanitation Focus on Opportunity, Ability and Motivation
SARAR	Self-esteem, Associative strengths, Resourcefulness, Action-planning, and Responsibility
SARS	Severe Acute Respiratory Syndrome
SDC	Swiss Agency for Development Cooperation
SCOTS	Sustainable Community Owned Total Sanitation
SHG	Self help group
SIDA	Swedish International Development Agency
SLTS	School Led Total Sanitation
SNNPR	Southern Nations Nationalities and People's Region (in Ethiopia)
SNV	Netherlands Development Organisation
SSD	Society for Sustainable Development (Pakistan NGO)
SSHE	School Sanitation and Hygiene Education
SSIP	Small Scale Independent Providers
SSA	Strategic Sanitation Approach
SSP	Strategic Sanitation Planning
SWS	Safe Water System
TAG	Technical Advisory Group
TPL	Traditional pit latrine
TSC	Total Sanitation Campaign
TSSM	Total Sanitation and Sanitation Marketing Project
UESS	Urban Environmental Sanitation Systems
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VERC	Village Education Resource Centre (Bangladesh NGO)
VIP	Ventilated Improved Pit Latrine
WASH	Water Sanitation and Hygiene
WATSAN	Water and sanitation
WEDC	Water, Engineering and Development Centre
WELL	Resource centre for water, sanitation and environmental health (managed by LSHTM and WEDC)
WES	Water and environmental sanitation
WHO	World Health Organization
WSP	Water and Sanitation Program
WSSCC	Water Supply and Sanitation Collaborative Council
WUP	Water Utilities Partnership
WWC	World Water Council

INTRODUCTION

BACKGROUND

Sanitation is enshrined in the Millennium Development Goals and is a cornerstone of the fight against poverty. Lack of basic sanitation puts millions of lives at risk and is responsible for a quarter of all child deaths in developing countries every year.[1] Lack of sanitation and poor hygiene also severely limit the impact of other development interventions in education, health, rural and urban development.

An enormous amount of resources has been expended on providing sanitation facilities, yet still over 2.5 billion people do not have access to basic sanitation services (WHO/UNICEF – JMP, 2008). Throughout the developing world the low sanitation coverage figures paint a stark picture. Furthermore, sanitation hardware alone is not sufficient: in many instances even though new toilets and washing facilities have been built, and coverage is recorded by officials as relatively high, proper usage remains low and little or no benefit is derived. Indeed, awareness is growing amongst public health practitioners that, until hygiene is properly practised, both at home and in the community as a whole, the desired impact of improved water and sanitation services in terms of community health benefits cannot be realised.

Over the past four decades practitioners have strived to find ways to reduce not only the huge number who remain without access to a toilet but also the huge number who do not use facilities hygienically even when they are available. The methods used to address this problem endeavour to engage target groups (individuals, households, communities, institutions or even organisations) in development programmes that enable a change in behaviours or create a demand for services. These methods or approaches are generally referred to as 'software' activities to distinguish them from the provision of hardware.

PURPOSE AND TARGET AUDIENCE

This document describes the various hygiene and sanitation 'software' approaches that have been deployed over the last 40 years by NGOs, development agencies, national and local governments in all types of settings – urban, informal-urban and rural.

There are many different software approaches and there is often confusion over for example, what a particular approach is designed to achieve, what it comprises, when and where it should be used, how it should be implemented or how much it costs. There is currently no reference material that explains the different approaches available or helps practitioners decide which one would be best to use for a particular situation. Moreover, the many 'acronyms' and 'brand names' in use frequently mean different things to different people.

Therefore, the purposes of this document are to clarify some of the confusion in the sector about the terminology and language used and provide a 'ready reference' or introduction to some of the more commonly-used approaches. It is intended to be used as a resource tool by both a newcomer to the subject and by the more experienced practitioner who wishes to gain knowledge of other approaches with which he or she is not familiar.

The document was commissioned by the Water Supply and Sanitation Collaborative Council (WSSCC) Secretariat to assist their national coordinators and WASH (Water, Sanitation and Hygiene) coalition

1. This figure is derived by Cumming, 2008 from a number of landmark publications including:
Prüss-Üstün, A., Bos, R., Gore, F. and Bartram, J. (2008). Safer water, better health: costs, benefits and sustainability of interventions to protect and promote health. World Health Organization, Geneva.
Esrey S, Potash J, Roberts L, and Shiff C (1991). Effects of Improved Water Supply and Sanitation on Ascariasis, Diarrhea, Dracunculiasis, Hookworm Infection, Schistosomiasis, and Trachoma. Bulletin of the World Health Organization 69 (5): 609–21 16.
Curtis V and Cairncross S (2003). Effect of washing hands with soap on diarrhoea risk in the community: a systematic review. The Lancet Infectious Diseases 2003; 3:275-281
UNICEF (2008). State of the World's Children. UNICEF, New York, USA

partners, as well as all project planners and field workers in their understanding of the various hygiene and sanitation software approaches. The intention is to guide the reader through each approach and, where appropriate, point the way to further literature.

The document is a companion to the Compendium of Sanitation Systems and Technologies published by the WSSCC and Eawag (Tilley et al., 2008) which concentrates purely on the hardware components used in sanitation interventions.

SCOPE

The document gives a snapshot in time of current software available and provides a basic analysis of these approaches and their applicability in certain situations. It is based upon a review of existing published information and 'grey' literature and it has tried to capture the most significant and the most frequently used software approaches.

The document is not an evaluation and does not attempt to draw comparisons or rank the software against each other. It should be emphasised that it does not claim to include every single hygiene and sanitation approach ever used and the authors are aware that some significant approaches may have been omitted where there is no documentation. This is seen as an area for further research and readers are encouraged to comment on the document; provide information on new approaches or software updates that are relevant to the publication, via the WSSCC website at www.wsscc.org.

STRUCTURE OF THE DOCUMENT

PART 1 of the document introduces the reader to the subject. It explains what hygiene and sanitation are; what is meant by software in the context of hygiene and sanitation; why software is recognised as extremely important, why we need it and factors which influence its effectiveness. A brief history of hygiene and sanitation software is included in the form of a timeline which highlights the most significant events over the last 40 years. **PART 1** also describes the contextual factors that influenced the design of existing software approaches as well as the importance of context when choosing an approach to follow. Finally, the methodology adopted for the document is explained including a description of the four categories of software, what information is provided and an explanation of why there are some omissions.

PART 2 examines the most significant hygiene and sanitation software approaches, in detail. Each approach is described in turn including a summary table, a description of characteristics, when it is best used on the hygiene and/or sanitation ladders, history of use, perceived strengths and weaknesses, evidence of effectiveness and references to sources of information, toolkits and guidebooks and further reading. **PART 2** also includes the main participatory approaches upon which many of the hygiene and sanitation software approaches in use today are based, as well as the common programming frameworks which are often used to enable their implementation.

PART 3 contains a review of combined national and global programmes. These are 'approaches' which do not fit neatly into the defined groups of software and often employ several approaches in combination. The cases cited are considered to be significant programmes that form interesting examples of how approaches are mixed and matched; they do not necessarily represent the "best" approaches or models that the WSSCC endorses above or instead of other cases that are not included.

To aid understanding a **glossary** of key terms is appended at the end of the document.

REFERENCES:

Cumming, O. (2008). Tackling the silent killer: The case for sanitation. WaterAid, London, UK. http://www.wateraid.org/documents/tacking_the_silent_killer_the_case_for_sanitation.pdf – Accessed March 2010.

World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP) (2008). Progress in Drinking-water and Sanitation: special focus on sanitation. UNICEF, New York and WHO, Geneva. http://www.wssinfo.org/en/40_MDG2008.html Accessed March 2010.

Tilley, E., Lüthi, C., Morel, A., Zurbrügg, C. and Schertenleib, R. (2008). Compendium of Sanitation Systems and Technologies. Swiss Federal Institute of Aquatic Science and Technology (Eawag) and WSSCC. Dübendorf, Switzerland. http://www.wsscc.org/fileadmin/files/pdf/publication/Compendium_of_Sanitation_Sys_and_Tech_2008.pdf Accessed March 2010.

Part 1:

HYGIENE AND SANITATION SOFTWARE EXPLAINED

1.1 WHAT ARE "HYGIENE" AND "SANITATION"?

The terms "hygiene" and "sanitation" can mean different things to different people. For the purposes of this document the term "sanitation" is used to refer to the management of human excreta. The term "hygiene" is used to refer to the behaviours/measures, including but beyond the management of human faeces, which are used to break the chain of infection transmission in the home and community. Whereas most people recognise that hygiene means "handwashing", there is some confusion as to what else is involved. In reality, all of the following contribute in some measure to reducing the burden of infectious diseases circulating in the community:

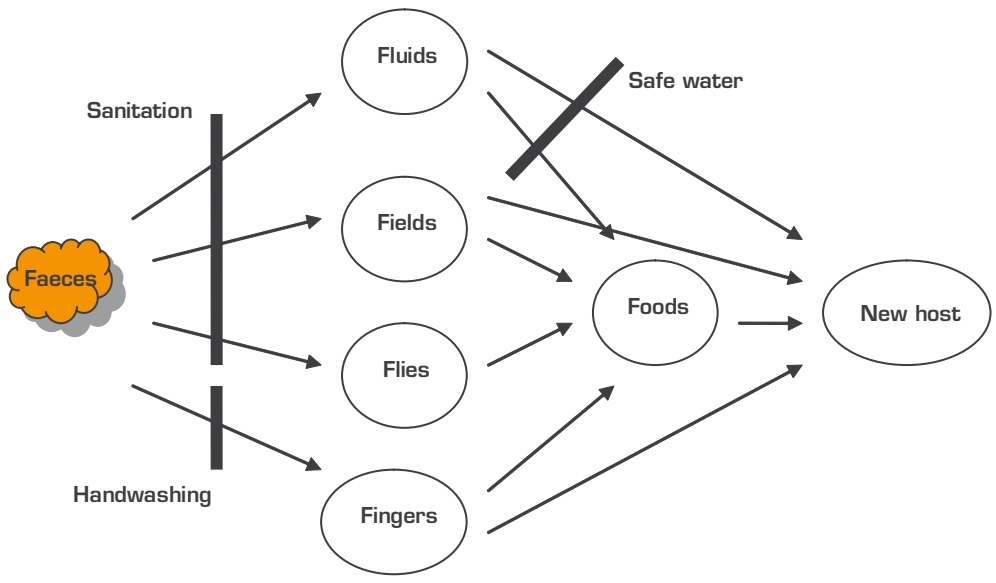
- Hand hygiene and personal hygiene;
- Food hygiene (cooking, storing, preventing cross contamination);
- Ensuring safe water at "point of use";
- Respiratory hygiene;
- Safe disposal of faeces (both human and animal);
- General hygiene (laundry, surfaces, toilets, baths, sinks); and
- Disposal of solid waste, control of wastewater and rainwater.

Although ideally all aspects of home hygiene are important, there is a general consensus that hygiene promotion programmes are more likely to be successful in changing behaviour if they focus on a small number of activities at a time. This means understanding how infectious diseases are being transmitted, and prioritising practices which carry the greatest risk.

In communities where facilities for safe disposal of faeces are inadequate, the major part of the **diarrhoeal disease** burden originates from infected faeces. Infectious agents are transmitted from faeces to hands to mouth (which can occur directly, or indirectly via other surfaces e.g. toilet surfaces), or by consumption of food or water which has become contaminated with faecal organisms. "Faecal:oral" transmission is illustrated by the F-diagram shown in **Figure 1**. Breaking the chain of faecal:oral transmission is achieved by a combination of improved sanitation and good hygiene practices. Animal faeces can also be the source of diarrhoeal disease, as can contaminated food purchased from a market or a contaminated community water supply.

Respiratory tract infections such as colds and flu, result either from inhalation of infected mucous droplets, or by rubbing the nasal mucosa or the eye with mucous-contaminated hands. Data now shows that good respiratory hygiene (safe disposal of nasal mucous and handwashing) can reduce the risks of respiratory infections; for instance, a study by Luby et al. (2005) showed associations between hand hygiene and Acute Respiratory Infections (ARI) in

FIGURE 1 – FAECAL:ORAL TRANSMISSION OF GERMS (THE F-DIAGRAM) AND MAIN WAYS TO BREAK THE TRANSMISSION ROUTES



Source: after Wagner and Lanoix, 1958.

children under five; when children's hands were washed at the recommended times significant reductions in ARIs were noted. The association between hand hygiene and ARIs is very topical with worldwide concern over the spread of SARS (severe acute respiratory syndrome) in 2003 and more recently Influenza A H1N1 (commonly known as swine flu). The campaigns against the spread of the diseases, particularly H1N1 demonstrate how the association between handwashing and the spread of ARIs is being used to encourage people to change behaviours and follow good hygiene practices[1].

For **skin and eye infections**, the hands are probably the major route of spread of infection. Trachoma is largely preventable through hygiene (face washing breaks the infection cycle). Fly control through hygienic latrines is also important.

For **intestinal helminths**, the hands, along with human faeces, are the major route for spreading a variety of intestinal helminths, which, while they do not necessarily contribute to mortality do contribute significantly to morbidity in children under 15 years of age.

Out of the above infections diarrhoeal disease is the most deadly, especially for children (see Prüss-Üstün et al., 2008) and consequently the WASH sector's primary focus is on reducing its spread. Establishing the relative impact (and thus relative importance) of different interventions is difficult, but it is generally accepted that, for reducing the risks of diarrhoeal disease transmission, priority should be given to promoting the three interventions which break the chain of faecal: oral transmission as shown in **Figure 1** (Bloomfield, 2007):

- Safe disposal of faeces by **sanitation**;
- **Handwashing** at critical times; and
- Ensuring access to adequate **safe water** at point of use.

This document is primarily concerned with these three interventions. However, other hygiene practices (such as improved food hygiene and solid waste management) are important as well; practitioners generally introduce these once the three primary interventions are in place. Of course the "ranking" of risks may vary from one community to another, for example in some communities risks associated with poor food hygiene may be greater than those associated with poor household water quality.

1. For examples see the British government's 'Catch It, Bin It, Kill It' slogan (UK Government, 2009) and the Information on Influenza A H1N1 displayed on the Ministry of Health and Family Welfare, Government of India (2009) webpage.

FOR MORE INFORMATION ABOUT THE PRINCIPLES AND PRACTICE OF HYGIENE AND SAFE FAECES DISPOSAL IN THE HOME AND COMMUNITY SEE:

Bloomfield, S.F. and Nath, K.J. (2006). Home hygiene in developing countries: prevention of infection in the home and peri-domestic settings. A training resource on hygiene for teachers, community nurses, community workers and health professionals in developing countries. International Scientific Forum on Home Hygiene (IFH), UK and the WSSCC, Geneva, Switzerland.
http://www.ifh-homehygiene.org/IntegratedCRD.nsf/571fd4bd2ff8f2118025750700031676/19155ab46073e67f8025752200546d83?OpenDocument
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Other references used in the text:

WHO (2009). Website of WHO, Global Alert and Response
http://www.who.int/csr/don/2009_09_11/en/index.html
Accessed March 2010.

UK Government (2009). Website on swine flu information
http://www.direct.gov.uk/en/Swineflu/DG_177831
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Ministry of Health and Family Welfare, Government of India (2009) webpage at: http://mohfw-h1n1.nic.in/
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Luby S., Agboatwalla, M., Feikin, D., Painter, J., Billhimer, W., Altaf, A. and Hoekstra, R. (2005) Effect of hand-washing on child health: a randomised controlled trial, The Lancet, 366, 225-233
http://www.aku.edu/CHS/pdf/SoapHealth_ARI_Lancet_Man.pdf
Accessed March 2010.

Bloomfield, S.F. (2007). Focus on Home Hygiene in Developing Countries. IFH, UK.
http://www.ifh-homehygiene.org/IntegratedCRD.nsf/34e8d616912421cc802575070003a15c/76a86658a2300e3080257522005814f6?OpenDocument
Accessed March 2010.

Prüss-Üstün, A., Bos, R., Gore, F. and Bartram, J. (2008). Safer water, better health: costs, benefits and sustainability of interventions to protect and promote health. WHO, Geneva.

Wagner, E. and Lanoix, J. (1958). Excreta disposal for rural areas and small communities. WHO Monograph series No. 39. WHO, Geneva.

1.2 WHAT IS HYGIENE AND SANITATION "SOFTWARE"?

This document defines hygiene and sanitation **"hardware"** as toilets, pipes, sewers, taps, soap and ancillaries such as pit-emptying equipment. The term **"software"** is now widely used in the sector to encompass activities that focus on the hygiene and/or sanitation promotional activities. Other **"software"** activities include policy development, training, monitoring and evaluation; in short, everything that allows a programme, project or intervention to take place.

However, for the purposes of this document hygiene and sanitation **"software"** is limited to social interventions and/or interactions that do one (or more) of five things:

- empower individuals, schools and/or communities with knowledge,
- enable a change in behaviour,
- create demand for services,
- facilitate establishment of supply chains, or
- improve the planning and implementation of hygiene and sanitation projects.

Most importantly, **"software"** is about human behaviour and interaction, and is therefore highly culturally and socially sensitive.

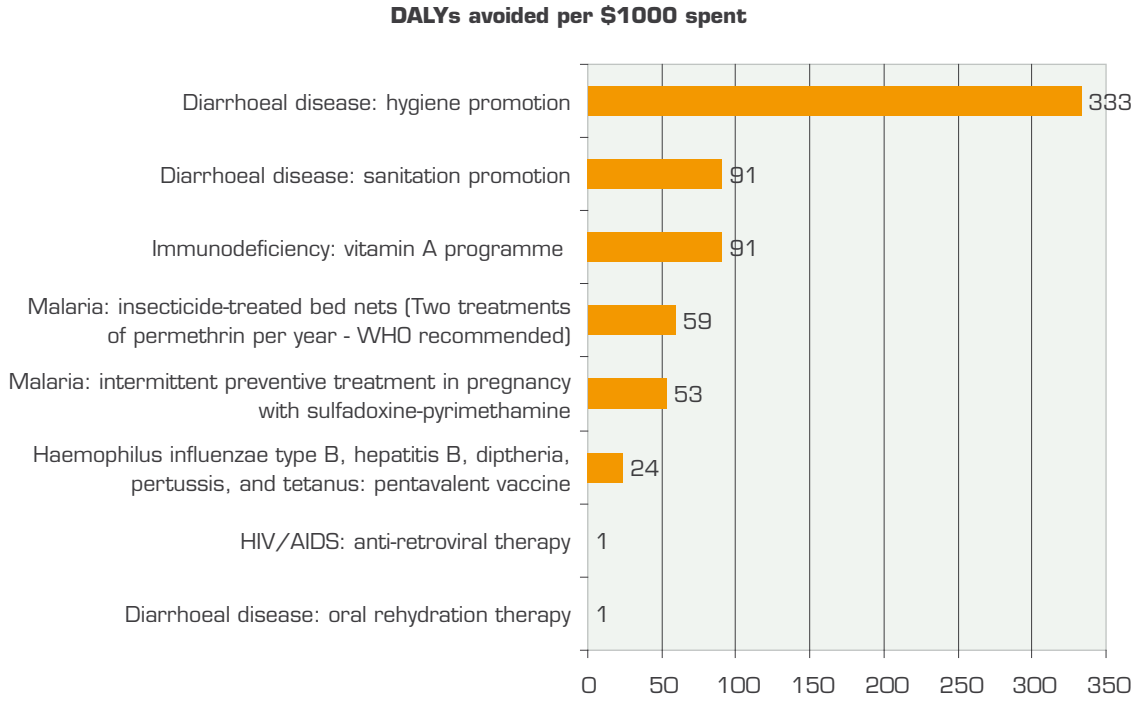
1.3 WHY DO WE NEED "SOFTWARE"?

The World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP) estimates that despite huge efforts to increase access to sanitation over 700 million Indians are still forced to defecate in the open (WHO/UNICEF-JMP, 2008) whilst in Africa the number of people without sanitation has actually grown in the past decade. Furthermore, a recent assessment of the existing evidence suggests that poor sanitation may be linked to as much as a quarter of all under-five deaths (Cumming, 2008).

Importantly, research is now showing that hygiene promotion can act as the means to create demand for sanitation and thereby increase coverage; thus hygiene promotion not only has the potential to increase the health impact of WASH programmes (Water, Sanitation and Hygiene), but also increase sanitation coverage. Increasing sanitation hardware provision alone is not enough and there is now evidence that focusing on hygiene promotion and sanitation promotion is the most cost-effective way of reducing diarrhoeal disease amongst children **(Figure 2)**.

The question is 'how' to promote these interventions?

FIGURE 2 – THE COST-EFFECTIVENESS OF CHILD SURVIVAL INTERVENTIONS



Source: Cumming (2008). Adapted from World Bank (2006). Disease Control Priorities in Developing Countries (2nd Edition). The World Bank.

Discouraging poor hygiene practices and encouraging good ones is important but numerous practitioners have now concluded that it simply is not enough to 'educate' people about the health benefits of doing so. Just because people know about disease and the cause of disease it does not necessarily follow that they will do something about adapting their behaviour to stop its spread; in short, hygiene education alone is not the answer. Where, for instance, open defecation offers people adequate privacy, convenience and safety, they may not wish to change their 'bad' habits ('bad' when viewed from a broader public health perspective) (Welle, 2008).

To illustrate this point Jenkins and Sugden (2006) present a long list of stated benefits of hygiene and sanitation compiled from various case studies and project reports (these are in turn based on household interviews, surveys and group discussions in many different settings). Their research found that increased comfort, increased privacy, increased convenience, increased safety for women (especially at night) and for children, increased dignity and higher social status all came well above any sort of health benefit or link to reduced illness. Many water supply, hygiene and sanitation improvement programmes implemented in the 1990s introduced a hygiene education component but it was commonly an afterthought and concentrated on public health benefits alone. It was part of what became known as a 'top-down' approach and the vast majority of the evidence shows that is was largely ineffective. Consequently such approaches are now considered old, outdated and, in general, they have been replaced.

In their place are 'bottom-up' approaches that focus first on gaining an understanding of the target community and appreciating the very different reasons that motivate people to improve sanitation and hygiene at home. By addressing these real and no doubt well-established motivations, concerns and constraints practitioners are then able to help a community to bring about both sustained changes in their hygiene behaviour and a sustained demand for sanitation.

Of course these 'bottom-up' software approaches must be well-designed to allow practitioners to facilitate changes that are appropriate and sensitive to cultural differences arising from gender, ethnicity, beliefs and customs as well as the different attitudes held by those living in urban and rural locations.

FOR MORE INFORMATION ON PROMOTING HYGIENE AND SANITATION BEHAVIOUR CHANGE IN DEVELOPING COUNTRIES SEE:

Appleton, B. and van Wijk, C. (2003). Hygiene Promotion: Thematic Overview Paper. IRC International Water and Sanitation Centre, Netherlands.
http://www.irc.nl/page/27611 – Accessed March 2010.

Cairncross, S. (1999). Why promote sanitation? WELL FACTSHEET , WEDC, UK.
http://www.lboro.ac.uk/orgs/well/resources/fact-sheets/fact-sheets-htm/wps.htm
Accessed March 2010.

For an overview of experience and for research concerning the benefits of and strategies for improved hygiene and sanitation see:

Pearson, J. and McPhedran, K. (2008). A literature review of the non-health impacts of sanitation. Waterlines, Waterlines Vol.27 No.1.

Welle, K. (2007). Sanitation and hygiene in developing countries: A case study from Burkina Faso. Identifying and responding to barriers. Tearfund, ACCEDES, and ODI, London, UK.
http://www.odi.org.uk/resources/download/3060.pdf
Accessed March 2010.

WSSCC (2006). For her it's the big issue. WSSCC, Geneva, Switzerland.
http://www.wsscc.org – Accessed March 2010.

Shordt, K. (2006). Review of Safe Disposal of Faeces. HIP/USAID/AED and IRC International Water and Sanitation Centre, Delft, The Netherlands.

Jenkins, M. and Sugden, S. (2006). Rethinking Sanitation: Lessons and Innovation for Sustainability and Success in the New Millennium. Human Development Report Office. Occasional Paper for the Human Development Report 2006 (2006/27). UNDP and LSHTM, London, UK.
http://hdr.undp.org/en/reports/global/hdr2006/papers/jenkins%20and%20sugden.pdf
Accessed March 2010.

Worldwide such approaches have now become a critical component in the campaign to improve public health and in particular reduce hygiene and sanitation related morbidity and mortality.

1.4 ARE HYGIENE AND SANITATION SOFTWARE APPROACHES ALWAYS EFFECTIVE?

Over the past 40 years various software approaches have been tried and tested, but despite good intentions too many of them have failed to enable sustained behaviour changes and have consequently had little positive effect on improving public health. Often, the fault lies not with the approach itself but with the manner in which it is implemented. To be effective a hygiene or sanitation software approach needs good planning and careful implementation. It needs to have clear policies to follow, solid funding, supportive organisations (public and/or private) and trained people; whilst being well designed, appropriately targeted and replicable. All this must be done with care, ensuring that the approach is appropriate to the local context where it is being applied.

THE FOLLOWING TWO BOOKLETS ARE USEFUL RESOURCES ON THE EFFECTIVENESS OF HYGIENE BEHAVIOUR INTERVENTIONS AND THEIR SUSTAINABILITY:

Bolt, E. and Cairncross, S. (2004). Sustainability of hygiene behaviour and the effectiveness of change interventions. Booklet 1: Lessons learned on research methodologies and research implementation from a multi country research study. IRC International Water and Sanitation Centre, Delft, The Netherlands.

Shordt, K. and Cairncross, S. (2004). Sustainability of hygiene behaviour and the effectiveness of change interventions. Booklet 2: Findings from a multi-country research study and implications for water and sanitation programmes. IRC International Water and Sanitation Centre, Delft, The Netherlands.

Both are available at http://www.irc.nl/page/15266 Accessed March 2010.

1.5 HISTORY OF HYGIENE AND SANITATION SOFTWARE

Table 1 shows the timeline of significant events in the sanitation sector overall as well as in development of hygiene and sanitation software over the last 30 to 40 years.

The timeline includes the first use of each of the approaches discussed in the document alongside the establishment of important organisations in the sector and major international events and initiatives that have taken place. The table illustrates the vast amount of work and commitment that has been made in order to improve hygiene and access to sanitation services during this period. It also illustrates the vast amount of experience and information from which practitioners can draw if they are aware of the history of the sector.

Organisations mentioned in this timeline are those that have played a key-role in developing some of the approaches listed in Parts 2 and 3. However, it is noted that none of these approaches would have become established without significant inputs from key individuals and key organisations at the local level, in particular many smaller, national or local NGOs that are not mentioned here in detail.

TABLE 1 – TIMELINE OF HYGIENE AND SANITATION SOFTWARE AND SIGNIFICANT EVENTS IN THE SECTOR

YEAR	HYGIENE AND SANITATION SOFTWARE TIMELINE	HYGIENE AND SANITATION SECTOR TIMELINE		
		Organisation	Events	Dialogue
1968		International Reference Centre on Community Water Supply established by WHO and Dutch government (later formed into IRC International Water and Sanitation Centre).		

YEAR	HYGIENE AND SANITATION SOFTWARE TIMELINE	HYGIENE AND SANITATION SECTOR TIMELINE		
		Organisation	Events	Dialogue
1970s -1980s	Rapid Rural Appraisal (RRA) developed.			
1970		Sulabh International Social Services Organisation founded in India.		
1971		Water Engineering and Development Centre (WEDC) founded, part of the Department of Civil and Building Engineering at Loughborough University, UK.		
1977			UN Water Conference, Mar del Plata, Argentina.	The 1980s are declared the International Drinking Water and Sanitation Decade. First official use of the term 'appropriate technology' applied to water and sanitation.
1978		The UNDP – World Bank Low-Cost Water Supply and Sanitation Project (later WSP) created; Technical Advisory Group (TAG) established.		
1980	Water and Sanitation for Health Project (WASH) started by USAID.			
1981		WaterAid established as a charitable trust.		
1981 – 1990			International Drinking Water and Sanitation Decade.	Decade is rated a success – rural water supply coverage rising from 30% to 50% but population growth outstrips many gains and sanitation is largely ignored.
1983	Promotion of Role for Women in Water and Environmental Sanitation Services (PROWESS) launched by the UNDP.			

YEAR	HYGIENE AND SANITATION SOFTWARE TIMELINE	HYGIENE AND SANITATION SECTOR TIMELINE		
		Organisation	Events	Dialogue
mid-1980s	SARAR approach applied to the water supply and sanitation sector in East and West Africa, Nepal, Indonesia, Mexico, and Bolivia.			
1986	Central Rural Sanitation Programme (CRSP) launched in India.			
1987		UNDP-World Bank Water and Sanitation Program created. Regional Water and Sanitation Groups (RWSG) established.		
1987	Child-to-Child Trust established to promote the CtC approach.			
1988		Agreement reached to establish the External Support Agency Collaborative Council.	International Drinking Water Supply and Sanitation Consultation.	
1988	Pilot of Community Action Planning in Sri Lanka supported by UNICEF and the Sri Lankan government.			
1989	SSA/SSP approach applied to Kumasi city, Ghana by WSP, World Bank.			
1990s	Participatory Rural Appraisal (PRA) developed.			
1990s	First Household Water Treatment and Safe Storage (HWTS) approaches developed.			
1990			Safe Water 2000 Conference, New Delhi, India.	Conference adopts policies on environment, health, institutional reforms etc. "Some for all" rather than "all for some".
1990		Water Supply and Sanitation Collaborative Council (WSSCC) established.	UN resolution passed to accelerate progress towards safe water, sanitation and hygiene for all.	
1992			International Conference on Water and the Environment: Development Issues for the 21st Century, Dublin, Ireland.	The four Dublin Principles are agreed including the principle that 'water is both a social and economic good'.

YEAR	HYGIENE AND SANITATION SOFTWARE TIMELINE	HYGIENE AND SANITATION SECTOR TIMELINE		
		Organisation	Events	Dialogue
1992			The Earth Summit: UN Conference on Environment and Development, Rio De Janeiro, Brazil.	Agenda 21 document is ratified.
1993	First experimental Sanitary marts started up in Uttar Pradesh, India by UNICEF.			
1993	PHAST pilot study started in four African countries by the Water and Sanitation Program of UNDP-World Bank and WHO.			
1993	IRC and WHO implemented studies and workshops on hygiene, sanitation and water in schools, leading to 'WASH in schools'.			
1994	Hygiene Improvement Framework (HIF) developed by USAID as a result of learning in its Environmental Health Project (EHP). The EHP succeeded the WASH project.			
1994	The first Community Health Clubs (CHC) established by NGO Zimbabwe Applied Health Education and Development (AHEAD).			
1995	Saniya approach developed and tested in Burkina Faso by London School of Hygiene and Tropical Medicine (LSHTM) and UNICEF.			
1996	Central American Handwashing Initiative implemented by Basic Support for Institutionalizing Child Survival (BASICS) and the Environmental Health Project (EHP). Completed in 1999.	Establishment of both the Global Water Partnership (GWP) and the World Water Council (WWC).		
1996	Water Utilities Partnership (WUP) identifies importance of supporting Small Scale Independent Providers (SSIP) of water and sanitation services. WSP commission studies of SSIPs worldwide.	The Water Utilities Partnership (WUP) was established to address key challenges facing utilities and their partners in the region.	International conference on the Reform of the Water Sector in Africa held in Johannesburg, South Africa.	
1997			First World Water Forum, Marrakech, Morocco.	
1998	Methodology for Participatory Assessments (MPA) developed by the Water and Sanitation Program's Participatory Learning and Action Initiative and the IRC International Water and Sanitation Centre.			

YEAR	HYGIENE AND SANITATION SOFTWARE TIMELINE	HYGIENE AND SANITATION SECTOR TIMELINE		
		Organisation	Events	Dialogue
1998	UNICEF and IRC published the School Sanitation and Hygiene Education manual (SSHE).			
1998	Population Services International's Safe Water System Project started for Household Water Treatment and Safe Storage.			
1999	Community-Led Total Sanitation (CLTS) started in Bangladesh through an application of PRA (by the Village Education Resource Centre (VERC) with support from WaterAid).			
1999	India's CRSP was renamed the Total Sanitation Campaign (TSC) and restructured as part of reform initiatives.			
2000			Millennium Summit held in New York City.	Millennium Development Goal target agreed to halve the proportion of people without access to safe drinking water; this target forms part of MDG 7 (sanitation mentioned only in context of improving the lives of slum-dwellers).
2000			2nd World Water Forum, The Hague, The Netherlands.	
2000	Bellagio Principles endorsed by the members of the WSSCC during its 5th Global Forum in Iguaçu, Brazil.			
2000	The WSSCC's Environmental Sanitation Working Group conceived the Household Centred Environmental Sanitation (HCES) approach.			
2001	(Global) Public-Private Partnership for Handwashing with Soap initiated.		Launch of Africa Water Task Force and the Africa Water Forum.	
2002	Child Hygiene and Sanitation Transformation (CHAST) developed from PHAST in Somalia by Caritas, Switzerland.		African Ministerial Conference on Water (AMCOW), Abuja, Nigeria.	Agreed the "Abuja Ministerial Declaration on Water – a key to Sustainable Development in Africa".

YEAR	HYGIENE AND SANITATION SOFTWARE TIMELINE	HYGIENE AND SANITATION SECTOR TIMELINE		
		Organisation	Events	Dialogue
2002			First AfricaSan Conference on Sanitation and Hygiene, Johannesburg, South Africa.	First across-continent type conference – conference agreed to raise profile of sanitation and hygiene and pushed for sanitation MDG target.
2002			World Summit on Sustainable Development in Johannesburg.	Governments agreed to a specific target to cut in half the proportion of people without basic sanitation by 2015. This target is included in MDG 7.
2003	Participants at WHO convened meeting in Geneva agreed to establish an International Network to promote Household Water Treatment and Safe Storage.		First South Asia Conference on Sanitation (SACOSAN), Dhaka, Bangladesh.	Representatives from nine countries in South Asia participated and agreed the Dhaka Declaration.
2003	The Southern Nations, Nationalities and People's Regional Bureau of Health in Ethiopia first piloted their new hygiene and sanitation strategy.		3rd World Water Forum, Kyoto, Japan.	
2004	DISHARI project started in Bangladesh by the Dhaka Ahsania Mission.			
2004	USAID's Environmental Health Project comes to an end.			
2005	USAID launch Hygiene Improvement Project (HIP).			
2005	UNICEF initiate School Led Total Sanitation (SLTS) pilot projects in Nepal and Pakistan; a mixture of CLTS and their School Sanitation and Hygiene Education programme.			
2006	Total Sanitation and Sanitation Marketing Approaches (TSSM) project started in Tanzania, India and Indonesia.		4th World Water Forum, Mexico City, Mexico.	
2006	Global Scaling-Up Handwashing Behaviour Change project started in Peru, Senegal, Tanzania and Vietnam.		Second SACOSAN Conference, Islamabad, Pakistan.	Representatives from 11 countries agreed the Islamabad Declaration.
2006	Sanitation 21 Task Force set up by International Water Association (IWA).			
2006	PATH's Safe Water Project started in India for Household Water Treatment and Safe Storage.			

YEAR	HYGIENE AND SANITATION SOFTWARE TIMELINE	HYGIENE AND SANITATION SECTOR TIMELINE		
		Organisation	Events	Dialogue
2006	Amhara National Regional State Health Bureau (Ethiopia) start implementation of new national and hygiene programme with support from USAID/HIP and WSP Africa.			
2006	BRAC's WASH programme started in Bangladesh.			
2007			First East Asia Ministerial Conference on Sanitation and Hygiene (EASan), Beppu City, Japan. First Latinosan Conference held in Cali, Columbia.	Ministers and leaders from 15 East Asian countries agreed the EASAN Declaration. Representatives from 22 Latin American countries agreed the Cali Declaration.
2008			The International Year of Sanitation, declared by the UN General Assembly.	
2008			First Global Handwashing Day held on 15 October 2008.	School children in over 80 countries participate.
2008			Second AfricaSan Conference on Sanitation and Hygiene, Durban, South Africa. Third SACOSAN Conference, New Delhi, India.	Agreed eThekwini Declaration, an action plan for putting Africa 'back on track' to meet the sanitation MDGs. Heads of delegations from eight South Asian countries agreed the Delhi Declaration.
2009			5th World Water Forum, Istanbul, Turkey.	

Source: Black (1998) and authors (2009).

1.6 SELECTING A SOFTWARE APPROACH

With so many alternative approaches to sanitation promotion and hygiene promotion it may be difficult for programmers to select the most appropriate approach. The local context is of primary importance. While there are many dimensions that need to be considered the following are amongst the most important.

The first, and most critical question that must be answered, is:

What behaviours and investment decisions is the programme seeking to change?

The importance of this question can best be understood when the improvement of hygiene behaviours and sanitation use is understood as a **process** (sometimes also known as a ladder). In sanitation we might normally expect people to move along a continuum from open defecation to fixed place defecation with some sharing, then on to the use of private hygienic toilets and finally to the use of a hygienic system with adequate treatment and re-use or disposal of all wastes. On the hygiene side, we may expect to see a continuum of change, from no key behaviours, to the practising of a small number of behaviours, towards effective practice of all key behaviours and finally to achieving a hygienic environment. **Figure 3** shows this diagrammatically.

These processes generally do not run in parallel, and communities/households may jump steps or move up and down the 'ladder' as circumstances dictate. The key point here is that practitioners need to select interventions that respond to the current set of behaviours and seek to make sustainable moves up the ladder. Thus community-led total sanitation **(see section S1.1)** may be appropriate when a community is practising open defecation and there is value in moving to fixed place defecation. Other approaches may be more appropriate when a community is already using hygienic latrines and practising key hygiene behaviours, and the objective is to move towards a fully hygienic environment.

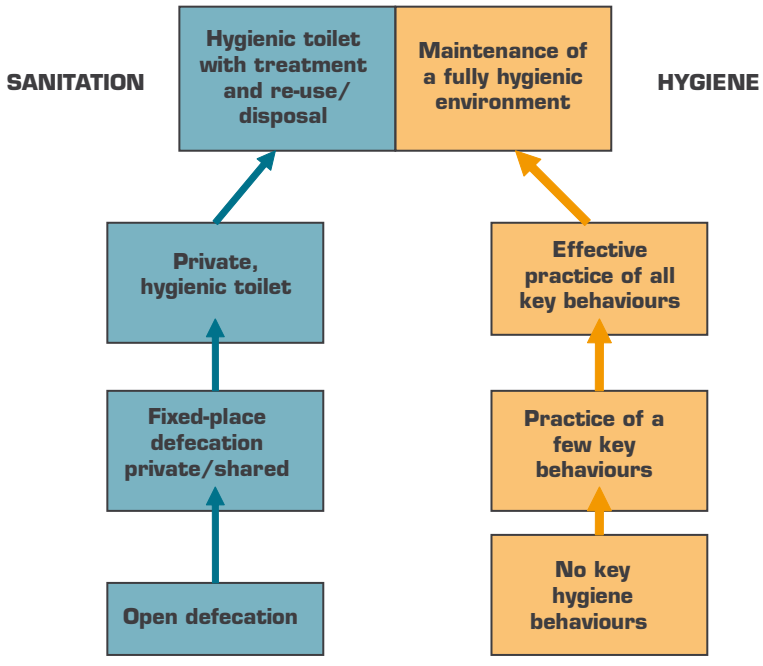
The **enabling environment** is also a key factor in determining which approach is most appropriate and how it is implemented. The enabling environment includes the political, legal, institutional, financial and economic, educational, technical and social conditions within which a hygiene or sanitation programme (or any type of development project) operates. It is just as important to understand the enabling environment of a small village or district level project as it is for a national or regional project. It is also important to recognise that this environment may have both positive (enabling) and negative (constraining) characteristics.

Most of the critical elements of the 'enabling environment', some of which are discussed below, should be identified or become evident during the project development process. Ideally these elements should be identified, at least in broad terms, prior to starting the planning and consultative process, so that the entire process does not start off with misunderstandings.

The Swiss Federal Institute for Environmental Science and Technology (Eawag, 2005) suggest that to develop an 'enabling environment' the following issues need to be considered:

- The level of **government support** for the project in terms of political support and favourable national policies and strategies;
- The **legal framework**, with appropriate standards and codes at national and municipal levels;

FIGURE 3 – DYNAMIC NATURE OF SANITATION AND HYGIENE BEHAVIOUR CHANGE



- **Institutional arrangements** that suit and support the approach of the project;
- Effective **training and communications**, ensuring that all participants understand and accept the concepts through possessing the required skills;
- **Credit and other financial arrangements** that facilitate the required level of participation and community involvement;
- **Information and knowledge management**; providing access to relevant information, sharing of experiences, training and resource materials, the development of new approaches and the dissemination of findings.

Finally, to this list should be added two other factors which are also very significant:

- **Social-cultural factors**: Cultural expectations will affect what is considered to be a suitable level of community involvement and ways of engaging with the community. These expectations are dynamic and the interactions and interventions deployed during a project may be able to adjust these views.
- **Rural versus urban**: The degree of urbanisation and the nature of communities in terms of their physical, economic and social characteristics will influence both the focus and the outcome of the approach taken. A different approach will be required in a dense, crowded urban neighbourhood than in a sparsely populated village.

FOR MORE INFORMATION ABOUT THE ENABLING ENVIRONMENT SEE:

Eawag (2005). Household-Centered Environmental Sanitation; Implementing the Bellagio Principles in Urban Environmental Sanitation – Provisional Guideline for Decision-Makers. Eawag/WSSCC, Switzerland.
http://www.eawag.ch/organisation/abteilungen/sandec/publikationen/publications_sesp/hces_guidelines
Accessed March 2010.

A useful publication which focuses in greater detail on the design of hygiene and sanitation interventions is:
WHO (2005). Sanitation and hygiene promotion: programming guidance. USAID, WSSCC and WHO; Geneva, Switzerland.
http://www.who.int/water_sanitation_health/hygiene/sanhygpromotoc.pdf
Accessed March 2010.

1.7 METHODOLOGY OF THIS DOCUMENT

1.7.1 Software groupings explained

As explained earlier **(section 1.1)**, the safe disposal of faeces by sanitation is one aspect of hygiene. However, due to its importance and its specific characteristics, a number of software approaches have been developed that focus specifically on sanitation promotion rather than hygiene behaviour change. Therefore, for the purpose of this document, the authors have recognised two distinct groups of hygiene and sanitation software activities:

- those which primarily focus on **hygiene promotion**. These seek to **induce** behaviour change and may include behaviour related to the safe disposal of faeces through sanitation; and
- those which primarily focus on **sanitation promotion**. These usually seek to **create demand for sanitation and supply chains** of goods and services and may also induce behaviour change.

Hygiene promotion approaches can further be divided into two main groupings: **(I)** participatory, community-based "total hygiene" (including safe disposal of faeces by sanitation) and **(II)** marketing of a single intervention.

Similarly, modern approaches to sanitation promotion can be divided into two groupings; **(I)** Community-wide approaches and **(II)** marketing of sanitation goods and services.

Importantly, within these broad definitions there are a variety of approaches and many of these use common **participatory planning tools**. The use of these tools is not limited to hygiene and sanitation and they are widely used in other development fields.

The approaches may further be embedded in common **programming frameworks**. These are frameworks that have been developed to improve delivery of hygiene and sanitation projects and programmes. They do not prescribe the approach to be followed but assist the concerned stakeholders to achieve the project goals.

Consequently, for the purpose of the document the following groupings are used:

GROUP P: Participatory Planning Tools
GROUP H: Inducing Behaviour Change: Hygiene Promotion
GROUP S: Creating Demand and Supply Chains: Sanitation Promotion
GROUP F: Programming Frameworks

The relationships between these four groups are illustrated in **Figure 4.**

1.7.2 What information is provided for each software approach?

Figure 4 shows all the approaches described in the document and highlights the group within which they are included. Colour codes have been assigned to each group to aid understanding and the same colour code is used for each group throughout the document.

PART 2 provides details for each software; in general the same categories of information have been identified for each one. **Figure 5** shows an annotated blank proforma developed for the document. The proforma includes a summary table (showing the goal, primary target group and application of each approach), a description of the main characteristics, when it is best used on the hygiene and/or sanitation ladders, a brief history of its use, perceived strengths and weaknesses and evidence of effectiveness of the software. Finally, the sources of information used are listed along with relevant toolkits, guidebooks and references to documents, articles and websites that may be of interest for further reading.

The data from the summary table for each approach has been extracted and included in **Table 2**. The table is divided into four parts, one part for each software grouping, and contains a summary of all the software described in **PART 2** of the document. The table enables the reader to differentiate between approaches and identify software with similar characteristics.

PART 3 describes selected Combined National and Global Programmes. For this section the proforma has been altered as these are stand-alone initiatives with unique characteristics. For this reason these approaches are not summarised in **Table 2**.

1.7.3 Why is information missing?

This document is not an evaluation and does not attempt to draw comparisons or rank the software against each other. It is based upon existing published information and 'grey' literature. Not all information is available for all the software described. The summary tables contain the best available information; this is particularly an issue for the evidence of effectiveness section including the cost and time inputs and the strengths and weaknesses section; it is worth highlighting that very little independently verified evidence is available for most of the approaches described.

It should also be noted that the perceived strengths and weaknesses section is based upon the opinions of selected professional 'experts' in the sanitation sector. They are perceptions as opposed to concrete facts and should be read as such.

The lack of credible independent evaluations may lead to some bias within the document. For methods which have been subjected to evaluation it is possible to report on outcomes and sustainability issues more fully than for those approaches where there has been no independent evaluation. This may lead the reader to conclude that the former are less successful than the latter but this would be a false conclusion.

1.8 OVERVIEW

Table 2 includes the 21 software approaches in the document. Of these 12 are concerned specifically with either hygiene promotion or sanitation promotion – groups H and S respectively (four of the other nine are participatory planning tools (group P) and five are programming frameworks (group F)). The table shows the wide range of approaches available, from those that are suitable only for one specific environment – rural, urban or informal-urban – and those that are applicable in more than one or even all three of these locations.

It is noticeable that of the 12 approaches in groups 'H' and 'S,' eight can be used in both rural and urban locations, three are to be used with rural programmes, and only one is specifically designed for urban areas. This illustrates the bias within the sector in favour of rural sanitation and hygiene improvement, which is traditionally where a greater need for support is perceived to exist and it is also possibly seen as easier! The complex problems caused by the ongoing rapid increase in urbanisation are of increasing concern and there is a need to find good, well-documented at-scale examples of urban programmes that resolve these issues across the WASH sector.

In contrast, three of the five programming frameworks in group 'F' are focused on urban areas, indicating that a major issue in cities and towns is how to improve planning and implementation of projects, many of which involve upgrading of existing

sanitation systems and strengthening of municipal institutions. A large proportion of urban dwellers already use latrines and coverage is generally considered to be high when compared to rural households. However, many urban latrines are not hygienic – the disposal systems are often inadequate and they discharge to unsuitable locations. This poses a major challenge for the sector and the programming frameworks have been developed to help address it.

Table 2 also indicates which approaches are considered to be 'pilot', 'expanding' or 'at scale' and which have been used 'in one country', 'in more than one country', 'in more than one region' and 'worldwide'. Significantly, only five of the 21 approaches have been shown to have worked at scale. These are Participatory Rural Appraisal, Participatory Hygiene and Sanitation Transformation, Child-to-Child, Public Private Partnerships for Handwashing with Soap and Community-Led Total Sanitation. A further 11 are considered to be expanding and the remaining five are pilot projects. Similarly, only five of the 21 approaches are currently in use worldwide. This shows that the sector is constantly innovating and trying to find new solutions to solve the problem of how to enable people to gain access to sanitation services and improve hygiene behaviour.

Accurate targeting is an important ingredient of each approach, consequently the target group is also highlighted in **Table 2**. The possible targets include children, individuals, households, the community, schools and society. Whilst it can be seen that all of the approaches target more than one of these groups it is notable that two-thirds of the approaches are designed to target the 'community'. This is in line with current thinking in the sector that in order for the benefits of improved hygiene and sanitation to be fully realised it is essential for the whole community to change their behaviour (rather than just a few individuals, a group of households or maybe one institution).

The included software approaches can be perceived as external approaches developed by 'experts'. However, as will become clear in the software descriptions, each approach is highly dependent on and shaped by local context, social and cultural aspects, and indigenous knowledge (in general modern approaches to hygiene and sanitation can be described as being people-centred). They are strongest when they successfully manage to match the 'expert' knowledge with this 'indigenous' knowledge.

FIGURE 4 – APPROACHES INCLUDED IN THE DOCUMENT

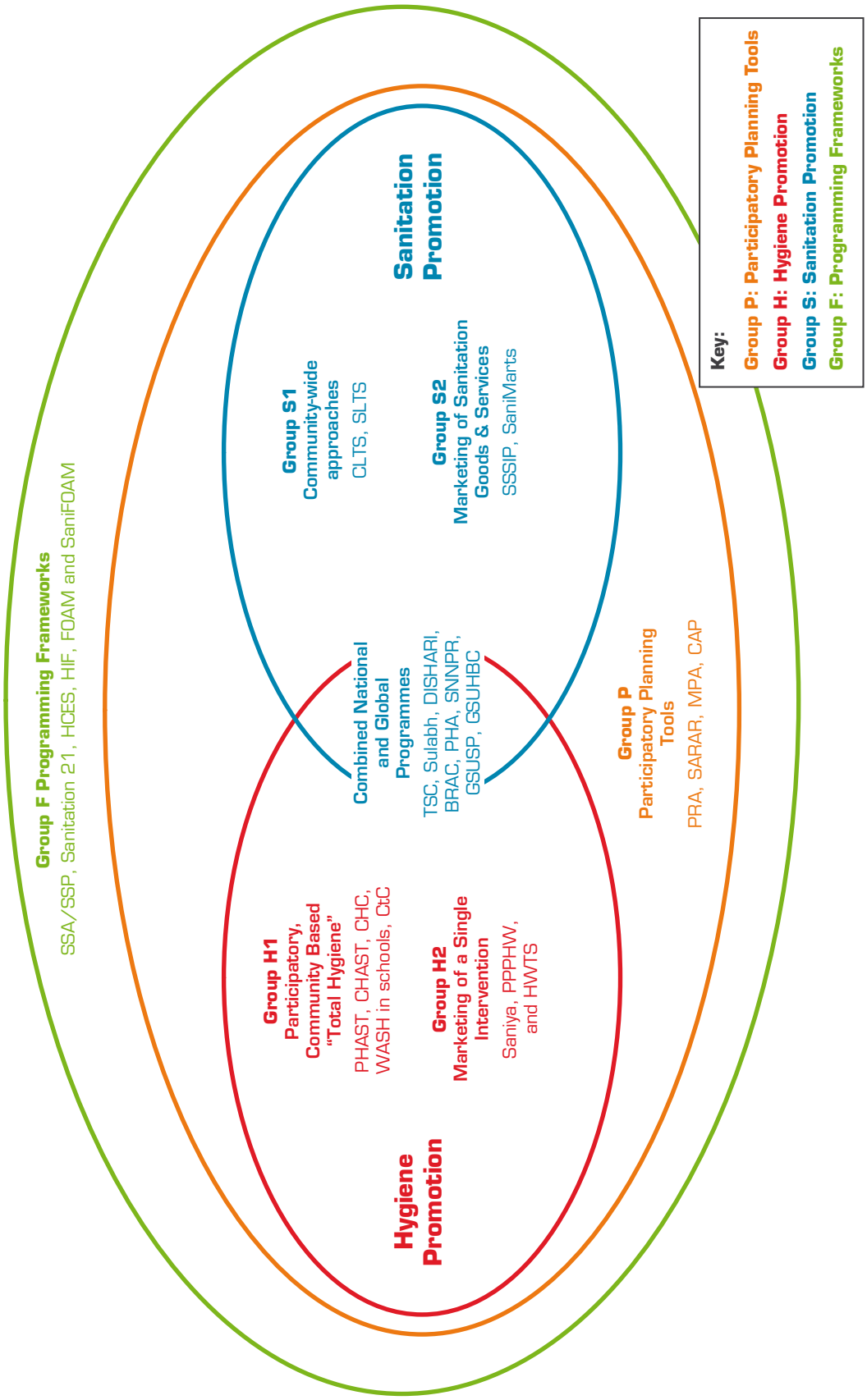


FIGURE 5 – ANNOTATED BLANK PROFORMA USED IN THE DOCUMENT

TITLE OF APPROACH – TO AID UNDERSTANDING THE TITLES ARE COLOUR CODED – APPROACHES IN THE SAME 'GROUPING' ARE GIVEN THE SAME COLOUR.

A short description of the approach including key points and features.

Summary table

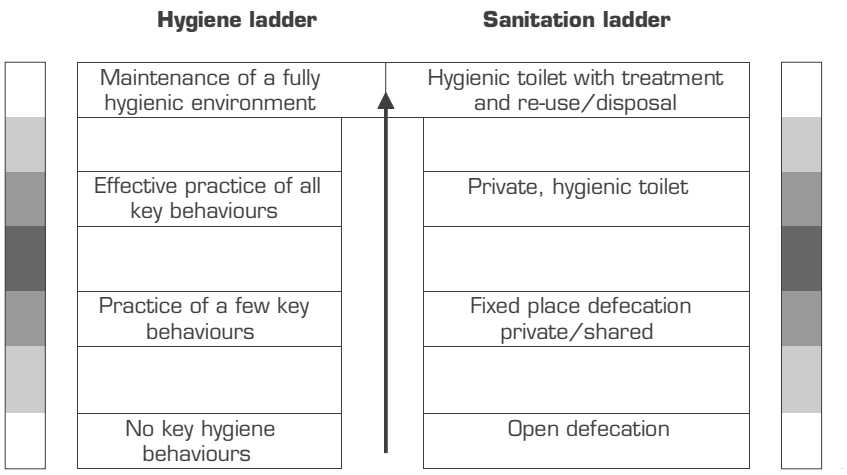
Goal	A short definition of the goal of the approach is given; this describes what the approach sets out to achieve.
Target group	The specific group targeted by the approach is identified. The target group could include one or more from children, individuals, households, schools, community or society.
How applied to date?	(a) Where the approach has been applied is identified – rural, urban or informal-urban environments. For clarity, these terms are further explained in the glossary. (b) The level at which the approach has been applied is given. Three choices are suggested – pilot, expanding or at scale; and where it has been used, four options are given – in one country only, in more than one country, in more than one region or worldwide.

Description

A brief description of the approach or framework is included, highlighting its characteristics and what distinguishes it from other approaches.

When is it best used on the hygiene and/or sanitation ladders?

The shading by the side of the ladders indicates when the software is best used. The darker shading the more appropriate its use is.



History of approach

Year started	Self explanatory	**Year ended (if applicable)**	Self explanatory
Origins (who by and where was it invented)	Names the organisation which is credited with inventing the approach.		
Funding from (name of donor agencies, if applicable)	Lists the organisations that have funded the approach – names the development bank(s) or government agency(s) responsible.		
Countries in which used to date	Lists the countries in which used to date.		
Experience to date	A description of notable experience to date.		

Perceived strengths and weaknesses

Strengths Weaknesses	This includes a summary of the main strengths and weaknesses that professional 'experts' in the hygiene and sanitation sectors have observed with the approach.

Evidence of effectiveness

Published internal evaluations	A list of publications by organisations closely involved in implementing the approach that contain evaluations or evidence of effectiveness.
Published external evaluations	A list of publications by organisations/individuals who have not been closely involved in implementing the approach that contain evaluations of the approach and or evidence of effectiveness.
Impacts, outcomes and sustainability	This section describes any significant impacts, outcomes and sustainability issues that are typical of the approach and demonstrate evidence of effectiveness drawn from the documents listed above.
Cost	The cost of the approach is given. This is the cost to the implementing organisation (not the householder's cost) and is given as the whole project cost, the cost per community, the cost per household or the cost per person etc.
Human resources	The level of human resources required to implement the approach. This includes not only field staff but also trainers, trainers of trainers, teachers and any technical or support staff required.
Time required to complete intervention	This is the length of a 'typical' project implementing the approach, from the initial contact to withdrawal of funding.

Note: There is very little independently verified evidence of effectiveness for a number of the approaches; where this is the case it is indicated in the text by the term 'insufficient data'.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	List of references used in compiling information for this document.
Toolkits or guidebooks	List of references to toolkits or guidebooks.
Further reading	List of references to books, journals and websites.

Additional information for "approach name" provided by "name of person".

TABLE 2 (PART I) – SUMMARY TABLE OF SOFTWARE INCLUDED IN THE DOCUMENT

GROUP P: PARTICIPATORY PLANNING TOOLS

GROUP	APPROACH	GOAL				
		Empowering communities with knowledge	Hygiene behaviour change	Create demand for sanitation	Create supply chains	Improve planning and implementation of hygiene and sanitation projects
P1	Participatory Rural Appraisal (PRA)	X				
P2	Self-Esteem, Associative strengths, Resourcefulness, Action-planning and Responsibility (SARAR)	X				
P3	Methodology for Participatory Assessment (MPA)					X
P4	Community Action Planning (CAP)					X

Notes:	
X	Denotes primary goal
O	Denotes secondary goal

TARGET GROUP						APPLICATION									
Children	Individual	Household	Community	Schools	Society	Rural	Urban	Informal-urban	Pilot	Expanding	At-scale	In one country only	In more than one country	In more than one region	Worldwide
			X			X	X	X			X				X
			X			X				X			X		
			X			X	X	X		X				X	
			X		X		X	X		X				X	

TABLE 2 (PART II) – SUMMARY TABLE OF SOFTWARE INCLUDED IN THE DOCUMENT

GROUP H: INDUCING BEHAVIOUR CHANGE: HYGIENE PROMOTION

GROUP	APPROACH	GOAL				
		Empowering communities with knowledge	Hygiene behaviour change	Create demand for sanitation	Create supply chains	Improve planning and implementation of hygiene and sanitation projects
H1	**Participatory, Community Based Total Hygiene Approaches**					
H1.1	Participatory Hygiene and Sanitation Transformation(PHAST)	O	X	O		O
H1.2	Child Hygiene and Sanitation Training (CHAST)	O	X	O		
H1.3	Community Health Clubs (CHC)	O	X	O		O
H1.4	WASH in Schools		X	O		
H1.5	Child-to-Child Approach	O	X			
H2	**Marketing of a Specific Intervention**					
H2.1	Saniya		X			
H2.2	Public Private Partnerships for Handwashing with Soap (PPPHWS)		X			
H2.3	Household Water Treatment and Storage (HWTS)		X			

Notes:	
X	Denotes primary goal
O	Denotes secondary goal

TARGET GROUP						APPLICATION									
Children	Individual	Household	Community	Schools	Society	Rural	Urban	Informal-urban	Pilot	Expanding	At-scale	In one country only	In more than one country	In more than one region	Worldwide
			X			X	X				X			X	
X						X			X				X		
X	X	X	X			X		X		X			X		
X			X	X		X	X	X		X					X
X				X		X	X	X			X				X
X	X	X					X		X			X			
					X	X	X	X			X				X
	X	X				X	X	X		X			X		

TABLE 2 (PART III) – SUMMARY TABLE OF SOFTWARE INCLUDED IN THE DOCUMENT

GROUP S: CREATING DEMAND AND SUPPLY CHAINS: SANITATION PROMOTION

GROUP	APPROACH	GOAL				
		Empowering communities with knowledge	Hygiene behaviour change	Create demand for sanitation	Create supply chains	Improve planning and implementation of hygiene and sanitation projects
S1	**Total Sanitation**					
S1.1	Community-Led Total Sanitation (CLTS)	O	O	X		
S1.2	School-Led Total Sanitation (SLTS)	O	O	X		
S2	**Marketing to Promote Sanitation Goods and Services**					
S2.1	Support to Small Scale Independent Providers (SSIPs)			O	X	
S2.2	SaniMarts			O	X	

Notes:	
X	Denotes primary goal
O	Denotes secondary goal

TARGET GROUP						APPLICATION									
Children	Individual	Household	Community	Schools	Society	Rural	Urban	Informal-urban	Pilot	Expanding	At-scale	In one country only	In more than one country	In more than one region	Worldwide
		X	X			X					X				X
X			X	X		X			X				X		
	X				X	X	X	X		X			X		
	X	X			X	X	X	X		X				X	

TABLE 2 (PART IV) – SUMMARY TABLE OF SOFTWARE INCLUDED IN THE DOCUMENT

GROUP F: PROGRAMMING FRAMEWORKS

GROUP	APPROACH	GOAL				
		Empowering communities with knowledge	Hygiene behaviour change	Create demand for sanitation	Create supply chains	Improve planning and implementation of hygiene and sanitation projects
F1	Strategic Sanitation Approach/Planning (SSA/SSP)					X
F2	Sanitation 21					X
F3	Household-Centred Environmental Sanitation (HCES)					X
F4	Hygiene Improvement Framework (HIF)					X
F5	FOAM and SaniFOAM					X

Notes:	
X	Denotes primary goal
O	Denotes secondary goal

TARGET GROUP						APPLICATION									
Children	Individual	Household	Community	Schools	Society	Rural	Urban	Informal-urban	Pilot	Expanding	At-scale	In one country only	In more than one country	In more than one region	Worldwide
		X	X		X		X	X		X			X		
		X	X		X		X	X	X					X	
	X	X	X		X		X	X		X				X	
X	X	X	X		X	X	X	X		X				X	
X	X	X				X	X	X	X					X	

Part 2:

THE SOFTWARE

GROUP P
Participatory Planning Tools

This section describes participatory planning tools that are variously used in many of the sanitation and hygiene approaches described in **PART 2**. Some, such as the Methodology for Participatory Appraisal (MPA) combine specific tools to form a stand-alone approach.

[P1] PARTICIPATORY RURAL APPRAISAL (PRA)

PRA is a family of approaches and methods that emphasise local knowledge and enable people to make their own appraisal, analysis and plans. PRA aims to empower local people in planning and management of development projects and programmes, and encourages them to support their own initiatives and actions. Many PRA methods involve groups and visual means for expressing and sharing knowledge and analysing it. PRA methods have other applications, for example in research.

Summary table

Goal	Empowering communities with knowledge		
Target group	Children ☒	Individuals ☒	Household ☒
	Community ☒	Schools ☒	Society ☐
How applied to date?	Rural ☒	Urban ☒	Informal-urban ☒
	Pilot ☐	Expanding ☐	At scale ☒
	In one country ☐	In more than one country ☐	
	In more than one region ☐	Worldwide ☒	

Description

PRA evolved in the late 1980s and early 1990s from RRA (rapid rural appraisal). RRA is a set of techniques used by development practitioners in rural areas to collect and analyse data. Rapid rural appraisal (RRA) was developed in the 1970s and 1980s in response to the problems of questionnaire surveys and 'rural development tourism' (the brief and biased rural visit) as ways of finding out about rural realities. It is vested in the belief that people themselves are the best 'experts' of their own situation and reality, no matter how poor or uneducated they are perceived to be. Key tenets of RRA are teamwork, flexibility, optimal ignorance (getting only the information that is really needed and no more) and triangulation. Tools typical of RRA are semi structured interviewing and focus group discussions.

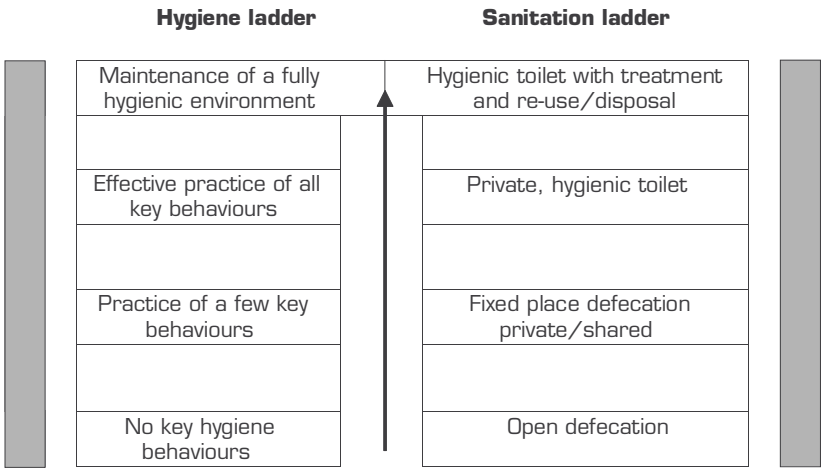
PRA includes these tools and goes beyond them by being participatory and empowering rather than extractive. The behaviour and attitudes of facilitators are fundamental in PRA, and more important than the methods. Much PRA uses group activities to facilitate information sharing, analysis, and action among stakeholders. Although originally developed for use in rural areas, the PRA approach and methods have been employed successfully with applications in natural resources, agriculture, health, poverty, sanitation and numerous other domains, including urban and organisational settings.

In a community, PRA activities can have many combinations and sequences of methods. PRA tools are continuously being invented. Some of the most commonly used are:

- Social and resource mapping and modelling
- Matrix scoring
- Wellbeing ('wealth') ranking
- Seasonal, historical and trend and change diagramming.
- Causal linkage diagramming
- Sorting and/or ranking cards or symbols

PRA facilitation seeks to be inclusive, with care to involve those who are marginalised, often women, children, and those of low status groups and minorities.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	Late 1980s and early 1990s **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	PRA was developed largely by innovators in NGOs in India and East Africa and the International Institute for Environment and Development (IIED) who then spread it to many countries, with networking support from IIED and the Institute of Development Studies, University of Sussex, UK.
Funding from (name of donor agencies, if applicable)	All major donors and lending agencies.
Countries used in to date	Worldwide
Experience to date	PRA tools are well proven and have been adapted and used in numerous situations. They form an important foundation for many effective sanitation and hygiene software approaches.

Perceived strengths and weaknesses

Strengths	It encourages participation of all members of a community and is based on interactive, often visual tools that enable participation regardless of literacy level. It demystifies research and planning processes by drawing on everyday experience. Participants feel empowered by their participation and the sense that their contributions are valued. It is generally regarded as a cost effective and efficient method.
Weaknesses	The approach requires training of facilitators and is human-resource intensive so can be expensive. Participation is not a panacea, and does not suit every circumstance. It is also essential to beware of manipulation – either conscious or unconscious, for instance when a "participatory social communicator" has preconceived ideas and dictates the discussion. The process can be "formalised" by using an abrupt and exploitative approach where there is a deadline to meet; this leads to unsatisfactory outcomes. The opportunity cost of community members' time must also be considered. 'Ask them' is a PRA precept which includes asking people the most convenient time and place to meet. When expectations are raised and nothing tangible emerges disappointment for the community will be the only outcome and may cause long-lasting damage.

Evidence of effectiveness

Published internal evaluations	None
Published external evaluations	None
What are impacts, outcomes and sustainability issues?	The principles of PRA are used as the foundation of many hygiene and sanitation software approaches rather than as a stand-alone tool. Therefore, it is not possible to identify specific examples of evidence of its effectiveness separately from evidence of effectiveness of the approaches which have grown from it.
How much does it cost?	Varies but generally regarded as a cost effective and efficient method.
Human resource requirement?	A number of facilitators with appropriate behaviour and attitudes; it is regarded as comparatively human-resource intensive.
How long does it take?	Varies considerably – depending on the purpose.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	World Bank (undated). The World Bank Participation Sourcebook. World Bank, USA. http://www.worldbank.org/ – Accessed March 2010. Rietbergen-McCracken, J. and Narayan, D. (1998). Participation and Social Assessment Guidebook on Tools and Techniques. World Bank, Washington DC, USA. http://www-wds.worldbank.org/external/default/main – Accessed March 2010.
Toolkits or guidebooks	**This is a general, rather than a sanitation and/or hygiene specific, list of PRA toolkits:** Tapia, M., Brasington, A. and Van Lith, L. (2007). Participation Guide: Involving those directly affected in Health and Development Communication Programmes. HIV/AIDS Alliance. Brighton, UK. http://www.aidsalliance.org/includes/Publication/participation_guide.pdf – Accessed March 2010. Bradley, D. (2004) Participatory Approaches: A facilitator's guide. VSO, London, UK http://community.eldis.org/.59c6ec19/ – Accessed March 2010. Mukherjee, N (2002). Participatory learning and action: with 100 field methods. (Studies in rural participation 4). New Delhi, India. Jayakaran, R. I. (2002). Ten seed technique. World Vision, China. http://www.fao.org/participation/Ten-Seed%20Technique-Revised.pdf – Accessed March 2010. Kumar, S. (2002). Methods for Community Participation: a complete guide for practitioners. Vistaar Publications, New Delhi, India. ISBN 81-7829-072-3 Braakman, L., and Edwards, K. (2002). The Art of Building Facilitation Capacities: a training manual. RECOFTC, Bangkok, Thailand. ISBN: 974-90746-2-9 http://www.recoftc.org/site/index.php?id=412 – Accessed March 2010. There are also a large number of PRA tool kits available in this list compiled by the IRC, it also contains non-sanitation and/or hygiene specific resources: Available at: http://www.irc.nl/page/6167 – Accessed March 2010.
Further reading	International HIV/AIDS Alliance (2006). Tools Together Now. International HIV/AIDS Alliance, Brighton, UK. ISBN 1-905055-11-0. http://www.aidsalliance.org/includes/Publication/Tools_Together_Now_2009.pdf – Accessed March 2010. Chambers, R. (1992). Rural Appraisal: Rapid, Relaxed, and Participatory. Discussion Paper 311, Institute of Development Studies. Sussex, UK. Theis, J. and Grady, H. (1991). Participatory Rapid Appraisal for Community Development. Save the Children Fund. London, UK. McCracken, J., Pretty, J. and Conway, G. (1988). An Introduction to Rapid Rural Appraisal for Agricultural Development. International Institute for Environment and Development. London, UK.

Additional information for PRA was provided by Robert Chambers and Lyla Mehta of IDS, UK.

[P2] SELF-ESTEEM, ASSOCIATIVE STRENGTHS, RESOURCEFULNESS, ACTION-PLANNING, AND RESPONSIBILITY (SARAR)

SARAR is a participatory approach to community empowerment and training that builds on local knowledge and strengthens people's ability to assess, prioritise, plan, create, organise, and evaluate. It builds local knowledge and self-esteem.

Summary table

Goal	Empowering communities with knowledge.		
Target group	Children ☐	Individuals ☐	Household ☐
	Community ☒	Schools ☐	Society ☐
How applied to date?	Rural ☒	Urban ☐	Informal-urban ☒
	Pilot ☐	Expanding ☒	At scale ☐
	In one country ☐	In more than one country ☐	
	In more than one region ☐	Worldwide ☒	

Description

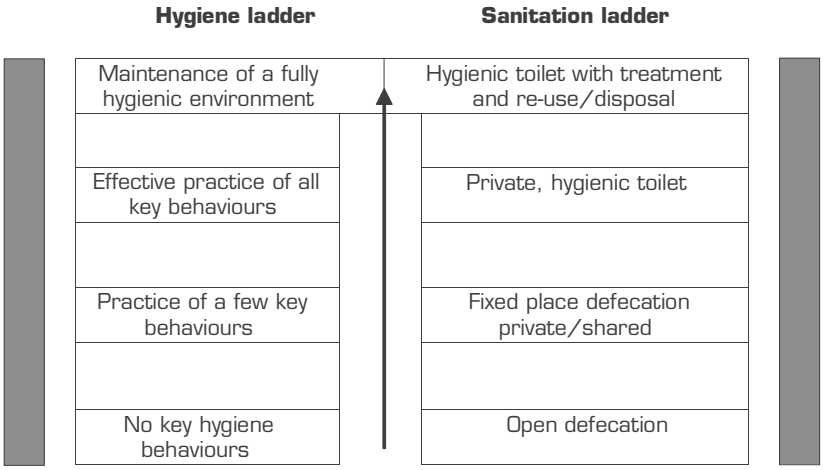
SARAR is an education/training methodology for working with people at different levels to engage their creative capacities in planning, problem solving and evaluation. The objective of the SARAR approach is not to teach a specific message or subject matter, but to stimulate the learners to think through problems for themselves and to help them to develop their own analytic, creative and planning abilities. The acronym SARAR stands for the five attributes and capacities that are considered the minimum essentials for participation to be a dynamic and self-sustaining process:

- **Self-esteem:** a sense of self-worth as a person as well as being a valuable resource for development.
- **Associative strengths:** the capacity to define and work toward a common vision through mutual respect, trust, and collaborative effort.
- **Resourcefulness:** the capacity to visualise new solutions to problems even against the odds, and the willingness to be challenged and take risks.
- **Action planning:** combining critical thinking and creativity to come up with new, effective, and reality-based plans in which each participant has a useful and fulfilling role.
- **Responsibility:** for follow-through until the commitments made are fully discharged and the hoped-for benefits achieved.

SARAR is based on the principle of fostering and strengthening these five attributes among people at all levels but particularly among community members. Such a process will enable the development of those people's own capacities for self-direction and management and will enhance the quality of participation among all of the stakeholders.

SARAR can be applied at all levels of what it describes as the Resistance to Change Continuum, but it is particularly valuable where the barriers are strongest and people need to be involved to overcome them – and when people need to be motivated to choose more sustainable options.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	Early 1970s **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	Lyra Srinivasan began designing the core tools of SARAR in pioneering work with national and international NGOs (e.g., Save the Children, World Education) in the early 1970s. It was adapted for use in water and sanitation by the PROWWESS/UNDP programme in the mid 1980s. First used in water and sanitation programmes in East and West Africa, Philippines, Indonesia (World Education), Nepal, India (ACDIL), Mexico (Sarar Transformación), Guatemala and Bolivia (Project Concern).
Funding from (name of donor agencies, if applicable)	SARAR was adopted and funded by UNDP/PROWWESS in the early 1980s and later transferred to the UNDP/World Bank's Water and Sanitation Program (WSP) in the early 1990s.
Countries used in to date	Worldwide
Experience to date	After the transfer of the PROWESS programme to the UNDP/World Bank WSP, SARAR became a core methodology of its programmes throughout Africa (including the International Training Network Centres), the flagship Yakupaj programme in Bolivia, as well as programmes in Asia (e.g. Pakistan, Vietnam and Mongolia). Then in the mid-1990s the WSP, WHO and UNICEF collaborated in the design of the focused application of SARAR to hygiene and sanitation promotion **(see PHAST section H1.1)**; and, in response to emerging needs and experience, the methodology was broadened to include participatory monitoring and evaluation approaches and to facilitate institutional development processes as well. SARAR has been successfully institutionalised in the Indonesian Government's Ministry of Health's education programme on sanitation and hygiene (Rietbergen-McCracken and Narayan, 1998); and in 1999 the SARAR (and PHAST tools) became the core approach for the El Salvador Ministry of Health health workers programme which was subsequently adapted by other countries in Latin America. It has also been used extensively in promoting ecological sustainable sanitation (in Latin America, sub-Saharan Africa, as well as in Central, South and East Asia). For instance, it uses an exercise known as the 'resistance to change continuum' in order to help participants become aware of their own resistance to building and using ecological toilets, overcome that resistance and effectively promote them within their communities (Sawyer, 2003).

Perceived strengths and weaknesses

Strengths	Although it was originally designed for rural use, SARAR has proved flexible in adapting to urban settings, and it has been applied across sectors, such as rural development, health, HIV/AIDS (Breslin and Sawyer 1999), forestry, as well as water, sanitation and hygiene education. SARAR is directed toward whole communities, but it has proved to be especially useful in giving special attention to population groups, such as women, whose input and needs are hard to assess with traditional development approaches. SARAR training helps to liberate extension workers from many of the unconscious assumptions inherited from paternalistic societies and government structures, frequently releasing creative energy and insight that can have broad reaching effects within the individual, group and community. Although for the uninitiated, the process-oriented, interactive tools can seem juvenile, participants quickly realise the rewards of greater enjoyment, immediate feedback and collective learning, stimulating increased commitment and time commitment to the collective learning process.
Weaknesses	Along with all participatory techniques care is needed to avoid manipulation and to ensure respect for the opportunity cost of communities' time. Effectiveness can also be limited by a general resistance – usually by higher level managers and decision makers rather than by the community themselves – to the use of qualitative, informal and visual–based techniques. The training of skilled SARAR facilitators requires a commitment to human development and an investment upfront which government planners and politicians looking for the quick fix are frequently unwilling to make.

Evidence of effectiveness

Published internal evaluations	None
Published external evaluations	Harnmeijer, J. (1994). PROWWESS Eastern Africa Assessment Report: Views of PROWWESS trained persons in 9 African Countries. WSP-East Africa and ETC International, Harare, Zimbabwe.
What are impacts, outcomes and sustainability issues?	Varies from project to project. Whereas there is insufficient data to evaluate the overall impact of SARAR, the PROWWESS assessment report (Harnmeijer 1994) found that trainees were often deeply affected by the methodology and frequently carried it with them into other roles and sectors: "There is a group of SARAR converted who 'live the methodology' and who have taken the methodology further than what was taught. For these people SARAR has endless applications". In terms of sustainability, the case of Bolivia is noteworthy in that, from an initial PROWWESS sponsored workshop in 1986, there are now numerous NGOs and government agencies that are using some form of SARAR (or its derivative PHAST) frequently combined with other tools and approaches (Sawyer, 2009).
How much does it cost?	Specific costs will vary from country to country and programme to programme, but as with any effective community-based empowerment and behaviour change approach there needs to be a commitment and resources to invest in training-of-trainers, materials development and production and community based workshops and follow-up (Sawyer, 2009).
Human resource requirement?	On average a SARAR workshop comprises one or two facilitators, preferably two to five experienced national trainers, and about 25 participants, or trainees – ideally accompanied by one or two local artists (Rietbergen-McCracken and Narayan, 1998).

Evidence of effectiveness

How long does it take?

Ideally a full field-based training programme should allow time for:

- Two to three day "pre-planning workshop" with core trainers and artists;
- Training workshop of 10 to 12 days;
- Production of visual materials by an artist(s);
- Field testing of techniques and materials;
- Several field visit sessions with the community; and
- A review workshop and follow-up activities.

SARAR community processes are relatively time-intensive. The actual time required is not specified.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information

Sawyer, R. (2009). Personal communication by email.

World Bank (undated). The World Bank Participation Sourcebook. World Bank, USA. Accessed October 2008.

Breslin, E. and Sawyer, R. (1999). A participatory approach to community-based HIV/AIDS awareness. Development in Practice 1999 Aug; 9(4):473-9.

PROWWESS/RWSG (1995). The promotion of a participatory development approach within the water and sanitation sector. PROWWESS/Regional Water and Sanitation Group-East Africa, World Bank, Kenya.

Toolkits or guidebooks

Dayal, R., van Wjik, C. and Mukherjee, N. (2000). METGUIDE Methodology for Participatory Assessments with Communities Institutions and Policy Makers. Linking Sustainability with Demand, Gender and. Poverty. http://www.schoolsanitation.org/Resources/Readings/global_metguideall.pdf – Accessed March 2010.

Rietbergen-McCracken, J. and Narayan, D. (1998). Participation and Social Assessment Guidebook on Tools and Techniques. The World Bank, Washington DC, USA. http://gametlibrary.worldbank.org/FILES/216_Guidelines%20for%20participation%20&%20social%20assessment%20-%20World%20Bank.pdf – Accessed March 2010.

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Srinivasan, L. (1992). Options for Educators: A monograph for decision makers on alternative participatory strategies. PACT/CDS, Communications Development Service, New York, USA.

Srinivasan, L. (1991). Designing SARAR Materials: A manual for artists, PROWWESS/UNDP Technical Series, New York, USA.

Srinivasan, L (1990). Tools for Community Participation. A Manual for Training Trainers in Participatory Techniques. PROWESS/UNDP Technical Series. New York, USA.

Further reading

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Mukherjee, N. (2002). Planning and monitoring for sustainability and equity. 28th WEDC International Conference, Kolkata, India. http://wedc.lboro.ac.uk/resources/conference/28/Mukherjee.pdf – Accessed March 2010.

Clark, L., Simpson-Hebert, M. and Sawyer, R. (1996). The PHAST initiative: participatory hygiene and sanitation transformation: a new approach to working with communities. (Participatory hygiene and sanitation transformation (PHAST); no. 1). WHO, Geneva, Switzerland.

Narayan, D. (1993). Participatory Evaluation. Tools for managing change in water and sanitation. World Bank Technical Paper Number 207. The World Bank, Washington DC, USA. http://www-wds.worldbank.org/external/default – Accessed March 2010.

Srinivasan, L. (1975). Perspectivas acerca del Aprendizaje No-formal del Adulto. World Education, Boston, USA.

Additional information for SARAR was provided by Ron Sawyer, Sarar Transformación, Mexico.

[P3] METHODOLOGY FOR PARTICIPATORY ASSESSMENTS (MPA)

Methodology for Participatory Assessments (MPA) is a comprehensive method for social assessment which recognises the importance of gender and poverty sensitive approaches.

Summary table

Goal	Improve planning and implementation of hygiene and sanitation projects.				
Target group	Children	☐	Individuals	☐	Household ☐
	Community	☒	Schools	☐	Society ☐
How applied to date?	Rural	☒	Urban	☒	Informal-urban ☒
	Pilot	☐	Expanding	☒	At scale ☐
	In one country	☐	In more than one country	☐	
	In more than one region	☒	Worldwide	☐	

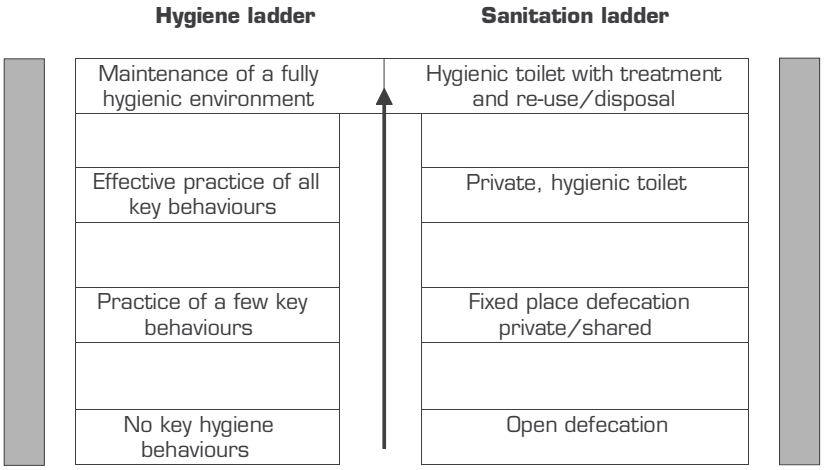
Description

MPA was developed by the water and sanitation sector to provide a framework by which data gathered through participatory techniques could be used in quantitative analysis. It comprises:

- A framework for combining social equity analysis with the analysis of sustainability of locally managed water supply and sanitation interventions.
- A set of sector-specific indicators for measuring and monitoring sustainability and equity in community water supply and sanitation services and user practices.
- A sequence of participatory tools to assess the indicators with user communities, project agencies/institutions and policymakers.
- A scoring system to quantify data from participatory assessments into tested and validated ordinal and ratio scales, for building a database, doing statistical analysis, making graphic presentations and benchmarking for sustainability.

Communities use the scores and qualitative findings to identify, analyse, and interrelate problems, plan improvements, and initiate new projects. Project staff uses the scores to compare between communities and across communities on common factors in order to evaluate and improve inputs, methods, and approaches.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	1998 **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	Developed by the Water and Sanitation Program's Participatory Learning and Action Initiative and the International Water and Sanitation Centre, IRC in 15 countries in the five regions within which WSP operates. MPA is built on PRA, SARAR and PHAST, combining elements of these approaches with quantitative methods and analytical tools.
Funding from (name of donor agencies, if applicable)	The World Bank, Governments of Canada, The Netherlands, Norway, Sweden and the Africa region of the UNDP, for development. Governments of Australia, Canada, Denmark, Belgium, Luxembourg, Sweden, The Netherlands, The United Kingdom, The World Bank and ADB, for applications.
Countries used in to date	Indonesia, Lao PDR, Cambodia, Vietnam, The Philippines, Peru, Bolivia, Ecuador, Columbia, India, Nepal, Sri Lanka, Benin, Kenya, Malawi, South Africa, Zambia, Tanzania, Uganda, Cameroon and Ghana.
Experience to date	Eighteen assessments were carried out in 88 communities in 15 countries. The assessments affirmed the importance of demand-responsive, gender- and poverty-sensitive approaches to positive service outcomes (Dayal et al.,2000). In Indonesia MPA-based planning, monitoring and evaluation is in use in all national rural water supply and sanitation projects 2002 onwards till present date (Government of Indonesia, 2002). The Government of Indonesia has adopted MPA as its national methodology for translating its Community-based Water supply and Environmental Sanitation Development Policy into action (Government of Indonesia, 2002). All districts are being technically assisted by the national government to develop their Medium-term Strategic Plans using MPA as the community-based planning tool. The Government of Lao PDR has mainstreamed MPA into all its rural water and sanitation programmes for participatory planning, monitoring and evaluation, following a sector evaluation in 2001-02, whereby MPA was used to assess sustainability and equity of service outcomes from all donor projects (Chantaphone and Lahiri, 2003). In the Philippines MPA was used to assess sustainability and equity in small town water supply service models (WSP-EAP, 2003a), urban sewerage and sanitation projects (WSP-EAP, 2003b) and rural water supply projects (WSP-EAP, 2004). In Vietnam the World Bank supported an evaluation of an urban community sanitation programme using MPA. In Indonesia, Cambodia and Vietnam MPA was used for research to inform rural sanitation policy reform (WSP-EAP, 2000, 2002a, 2002b; Mukherjee, 2001). MPA has been recognised as an example of 'best practice' by the World Bank's Operations Evaluation Department (Hopkins and Mukherjee, 2005).

Perceived strengths and weaknesses

Strengths	MPA is recognised as an effective tool for planning and monitoring for sustainability and equity in community-based water supply and sanitation services. It is particularly suited for participatory evaluations of water and sanitation services where sustainability, poverty-targeting and gender-equity need to be assessed in project outcomes. Because MPA enables the quantification of participatory assessment results, it allows quantitative comparisons between groups of communities, across different projects, districts and provinces. It also enables data generated at the community level to be consolidated and used in district, provincial and national databases and used in policy analysis.
Weaknesses	In common with PRA and SARAR, MPA requires training of facilitators and is human-resource intensive. Following use of MPA in Nepal Paudyal et al. (2002) identified that it needs to be simplified and streamlined for ease of application in the field, analysis of data, and interpretation of results. Along with all participatory techniques care is needed to avoid manipulation and to ensure respect for the opportunity cost of communities' time. There remain some challenges in generating credible quantitative data from participatory and qualitative data collection techniques.

Evidence of effectiveness

Published internal evaluations	Hopkins, R. and Mukherjee, N. (2005). Assessing the Effectiveness of Water and Sanitation Interventions in Villages in Flores (FLOWS), Indonesia. Chapter 4 of Influential Evaluations: Detailed Case Studies. Operations Evaluation Department of the World Bank. Washington DC, USA.
Published external evaluations	None
What are impacts, outcomes and sustainability issues?	Insufficient data.
How much does it cost?	The World Bank's Operations Evaluation Department describes the MPA-based evaluation of the FLOWS project in Indonesia as "highly cost-effective" – it cost $150,000 in 2001 (Hopkins and Mukherjee, 2005).
Human resource requirement?	Typically, a complete sustainability assessment using MPA needs two trained facilitators spending three to four days per sampled community, in order to conduct group assessment sessions with men, women and children at their convenience, and a one-day stakeholder meeting (institutional assessment) at district level. MPA used for micro-planning community interventions require assessments in every project community and costs should be built into project implementation. MPA-based policy assessment workshops are typically one day workshops with policymakers (Mukherjee, 2009).
How long does it take?	See above

Sources of information, toolkits, guidebooks and further reading

Source(s) of information

Mukherjee, N. (2009). Personal communication by email. 13th July 2009.

WSP-EAP (2004). Identifying Elements of Sustainability: Lessons Learned form RWSS projects in the Philippines. WSP-EAP, Jakarta, Indonesia.

Chantaphone, S. and Lahiri, S. (2003). Looking Back to See Forward: Learning from communities about use and sustainability of RWSS services in Lao PDR, Paper in Sustainability Planning and Monitoring, WSP, World Bank and IRC International Water and Sanitation Centre.

WSP-EAP (2003)a. Management Models for Small Town Water Supply: Lessons from Case studies in The Philippines. WSP-EAP, Jakarta, Indonesia.

WSP-EAP (2003)b. Urban Sewerage and Sanitation: Lessons from case studies in The Philippines. WSP-EAP, Jakarta, Indonesia.

Paudyal, L., Moffat, M. and James, V. (2002). Linking demand, gender and poverty for sustainability. 28th WEDC Conference Kolkata (Calcutta), India. Sustainable Environmental Sanitation and Water Services. WEDC, Loughborough, UK.

Government of Indonesia (2002). National Policy of Community Managed Water Supply and Environmental Sanitation Facilities and Services. WSP-EAP, Jakarta, Indonesia.

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WSP-EAP (2000). Is it Selling Toilets? No, a Lifestyle", Indonesia country report of participatory policy assessment study. Jakarta, Indonesia. WSP-EAP, Jakarta, Indonesia.

Dayal, R., van Wjik, C. and Mukherjee, N. (2000). METGUIDE Methodology for Participatory Assessments with Communities Institutions and Policy Makers. Linking Sustainability with Demand, Gender and Poverty. World Bank WSP, Washington DC, USA. http://www.schoolsanitation.org/Resources/Readings/global_metguideall.pdf Accessed March 2010.

Toolkits or guidebooks

Mukherjee, N. and Wijk van, C. (2003). Sustainability planning and monitoring in community water supply and sanitation: a guide on the methodology for participatory assessment (MPA) for community-driven development programmes. World Bank. Washington, DC, USA, http://www.wsp.org/UserFiles/file/328200785925_sustainplanningandmonitoring.pdf – Accessed March 2010.

Further reading

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Reiff, S. (2003). Using the MPA in Benin. Waterlines, Volume 22, No.1, July 2003, London, UK.

van Wijk-Sijbesma, C. (2002). The best of two worlds? Methodology for participatory assessment of community water services. WSP, Wageningen University, and IRC, the Netherlands. http://www2.irc.nl/products/publications/title.php/117 – Accessed March 2010.

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Gross, B., van Wijk, C. and Mukherjee, N. (2001). Linking Sustainability with demand, gender and poverty: a study in community managed water supply projects in 15 countries. World Bank WSP, Washington DC, USA.

Additional information for MPA was provided by Nilanjana Mukherjee, Independent Consultant.

[P4] COMMUNITY ACTION PLANNING (CAP)

Community Action Planning (CAP) is an interdisciplinary, collaborative, and community-based planning technique. It facilitates participation in the creation and management of a community's entire built environment including its sanitation facilities.

Summary table

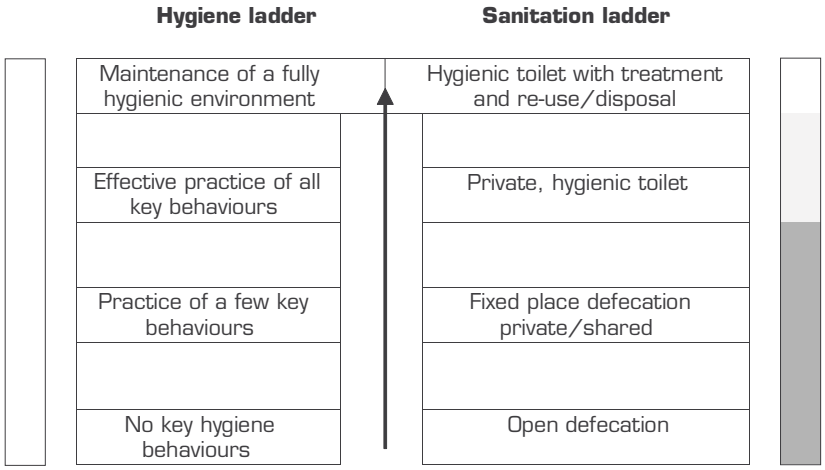
Goal	Empowering communities with knowledge.				
Target group	Children	☐	Individuals	☐	Household ☐
	Community	☒	Schools	☐	Society ☒
How applied to date?	Rural	☐	Urban	☒	Informal-urban ☒
	Pilot	☐	Expanding	☒	At scale ☐
	In one country	☐	In more than one country	☒	
	In more than one region	☒	Worldwide	☐	

Description

CAP grew out of communicative planning practices developed since the 1970s. The technique has evolved – and is still evolving – from practical experience in many parts of the world. It is part of an emerging group of "community planning" or "community design" approaches which make it easier for people to participate in the creation and management of their built environment.

The underlying philosophy of CAP is interdisciplinary, collaborative, and community-based. The assumption is that better environments can be created if local communities take the driving seat and work closely and directly with a range of specialists. As a clearly defined planning technique, a CAP event lasts two to five days and involves a multi-actor planning event that defines steps for improving the future of a neighbourhood. The output of this workshop is a development plan which includes a list of prioritised problems, strategies and options for dealing with the problems, and a rudimentary work programme describing who, when and what is to be done. Integral to the approach is the shared relation between the professional technical inputs and the community. The workshops should always be located in the community to encourage participation. The main difference to the similar HCES approach (F3) is that CAP deals with the entire built environment, including infrastructure and basic urban services.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	1988 **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	R. Goethert and N. Hamdi, Massachusetts Institute of Technology, USA.
Funding from (name of donor agencies, if applicable)	Piloting was supported in Sri Lanka in the 1980s by UNICEF and the Sri Lankan government.
Countries used in to date	Sri Lanka, Bangladesh, Chile, Peru, Kenya, South Africa and Poland.
Experience to date	Worldwide experience of CAP is reflected in the publication Action Planning for Cities, A Guide to Community Practice by Goethert and Hamdi, 1997.

Perceived strengths and weaknesses

Strengths	A comprehensive action planning procedure for producing development plans for upgrading settlements. Resolution of complex problems is achieved in a short period of time. Fostering of consensus building among different interest groups leading to better integration.
Weaknesses	Ineffective if there is no support from city level institutions or where the enabling environment (policies, regulations, finances etc) is adverse. Many cities lack the financial and technical autonomy to support or implement the type of decision making suggested by the CAP process. Therefore, CAP should only be considered where there is a strong political commitment to the sustained effort essential to success. Along with all participatory techniques care is needed to avoid manipulation and to ensure respect for the opportunity cost of communities' time.

Evidence of effectiveness

Published internal evaluations	Goethert, R. and Hamdi, N. (1988). Making Microplans: a Community-based Process in Programming and Development, Intermediate Technology, London, UK. Goethert, R. and Hamdi, N. (1997). Action Planning for Cities – A Guide to Community Practice, John Wiley and Sons, New York, USA.
Published external evaluations	None
What are impacts, outcomes and sustainability issues?	Although community action plans are not statutory plans, municipal authorities are willing to support them because they are multi-actor-based and define direct actions for implementation. Many international donors have used the CAP approach for informal settlement upgrading programmes.
How much does it cost?	Planning costs vary according to country and level of expertise involved, a 3-4 day CAP event costs around US$ 2,000 (Lüthi, 2009).
Human resource requirement?	1. A good moderator/team facilitator accepted by the community. 2. Rapporteur who makes sure that all group results are recorded in a structured way. 3. Technical experts (e.g. health, engineering, social development). As many as appropriate.
How long does it take?	A CAP event lasts two to five days and can take on several forms: activity week, future search conference or a micro-planning workshop.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	Lüthi, C. (2009). Personal communication by email, 22 June 2009.
Toolkits or guidebooks	Wates, N. (1999). The community planning handbook: How people can shape their cities, towns and villages in any part of the world. Earthscan, London, UK.
Further reading	Website of Special Interest Group in Urban Settlement, Massachusetts Institute of Technology, USA. Available at: http://web.mit.edu/sigus/www/NEW/index.html Accessed March 2010.

Additional information for CAP was provided by Christoph Lüthi of SANDEC, Switzerland.

Part 2:

THE SOFTWARE

GROUP H
Inducing Behaviour Change: Hygiene Promotion

Hygiene promotion approaches can be broadly split into two categories; those that are holistic and aim for a complete or "total hygiene" behaviour change and those that focus on a single targeted hygiene behaviour.

Eight hygiene promotion approaches have been identified for inclusion in the document; of these five are categorised as "total hygiene" approaches and are included in **Group H1** and three target a single hygiene behaviour and are described in **Group H2**.

[H1] PARTICIPATORY, COMMUNITY-BASED "TOTAL HYGIENE"

In this section we focus on the hygiene approaches which are holistic and aim for a complete or "total hygiene" behaviour change. The term "total hygiene" includes safe disposal of faeces by sanitation, handwashing and home treatment of drinking water but may also include for example, improved food hygiene and safe disposal of refuse.

All the approaches in this section encourage the participation of individuals in a group process no matter what their age, sex, social class or educational background. Participatory methods are suitable for planning at the community level and are designed to build self-esteem and a sense of responsibility for one's decisions. In general, these approaches are useful for encouraging the involvement of women, children, the elderly and people with disabilities who in some cultures may be reluctant or unable to express their views or unable to read and/or write.

FOR MORE BACKGROUND INFORMATION ABOUT HOLISTIC OR TOTAL HYGIENE APPROACHES TO HYGIENE PROMOTION SEE:

Bloomfield, S., Exner, M., Fara, G., Nath, K., Scott, E. and van der Voorden, C. (2009). The global burden of hygiene-related diseases in relation to the home and community. An IFH expert review; published on http://www.ifh-homehygiene.org/IntegratedCRD.nsf/111e68ea0824afe180257507000 3f039/29858aa006faaa22802572970064b6e8?OpenDoc ument – Accessed March 2010.

[H1.1] PARTICIPATORY HYGIENE AND SANITATION TRANSFORMATION (PHAST)

PHAST is a participatory learning methodology that seeks to help communities improve hygiene behaviours, reduce diarrhoeal disease and encourage effective community management of water and sanitation services.

Summary table

Goal	Hygiene behaviour change.				
Target group	Children	☐	Individuals	☐	Household ☐
	Community	☒	Schools	☐	Society ☐
How applied to date?	Rural	☒	Urban	☒	Informal-urban ☐
	Pilot	☐	Expanding	☐	At scale ☒
	In one country	☐	In more than one country	☐	
	In more than one region	☒	Worldwide	☐	

Description

PHAST is primarily a decision-support tool that uses a 'seven step' participatory approach to facilitate community planning and action. The seven steps are:

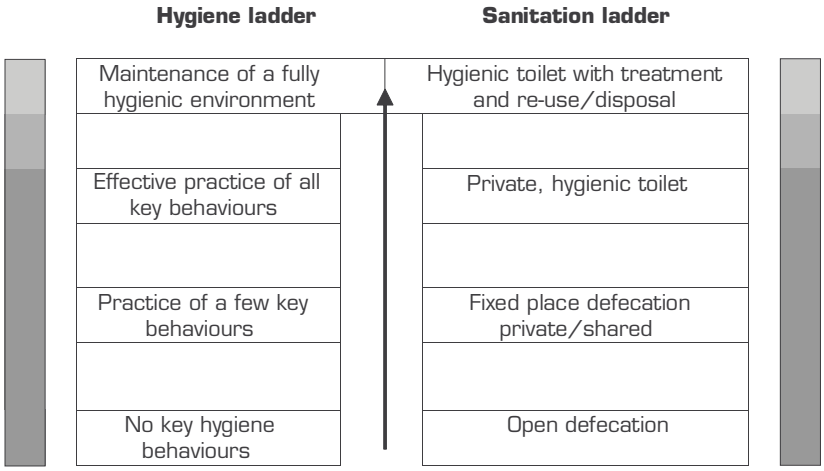
- problem identification,
- problem analysis,
- planning for solutions,
- selecting options,
- planning for new facilities and behaviour change,
- planning for monitoring and evaluation and
- participatory evaluation.

PHAST works on the premise that as communities gain awareness of their water, sanitation and hygiene situation through participatory activities, they are empowered to develop and carry out their own plans to improve this situation. The plans adopted may include both construction and management of new physical facilities as well as safer individual and collective behaviours.

PHAST utilises specifically designed tools which cover issues such as water, sanitation, HIV/AIDS and general health. The tools comprise a series of pictures depicting local situations. Groups of people are asked to say how these relate to the local situation (but never to themselves directly) and what they would need to do to solve the problems that they have identified.

When individual knowledge is required a process called pocket chart voting is used which allows the participants to vote in secret. The findings are then discussed by the group as a whole, but an individual never has to reveal their choice.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	1993	**Year ended (if applicable)**	Ongoing

Origins (who by and where was it invented)

Water and Sanitation Program, World Bank and WHO in collaboration with sector partners in the Africa region. It is based on SARAR (which stands for Self esteem, Associative strengths, Resourcefulness, Action planning and Responsibility, see approach P2).

First piloted in Botswana, Kenya, Tanzania, Uganda and Zimbabwe to test the use of participatory methods for promoting hygiene behaviours, sanitation improvements and community management of water and sanitation facilities.

History of approach

Funding from (name of donor agencies, if applicable)	World Bank and WHO. Bilateral donors e.g. DANIDA, SIDA, FINNIDA, NORAD etc.
Countries used in to date	Botswana, Kenya, Uganda, Tanzania, Zimbabwe, South Africa, Ghana, Burkina Faso, Swaziland and Myanmar. Since 1994 PHAST has been an official Ministry of Health Programme in Zimbabwe and incorporated into sanitation programmes in Uganda and Kenya.
Experience to date	Implemented in many countries with varying degrees of success. It has not yet been possible to demonstrate the effectiveness of PHAST with respect to hygiene behaviour change or a reduction in diarrhoeal disease. There has been criticism from both PHAST implementers and beneficiaries about the 'childishness' of the methods used: too simple methods underestimate the target audience. Facilitators have to be sensitive to each situation and change in environment – without the required adaptation to the community where it is being used, the method has a high risk of being abandoned (World Bank, 2008).

Perceived strengths and weaknesses

Strengths	Extremely rewarding for both the community members and community workers, by involving the communities in their project planning and implementation through participatory techniques. Communities gain confidence and responsibility for their own projects and have a clear say in what they want and do not want. Effective involvement of the community in monitoring and evaluation ensures that the services put in place respond to the needs of the community and that essential direct feedback provided can serve to change activities as necessary. Trained community workers in participatory techniques, with proper guidance and management, can become a lasting asset to the programme and the community (World Bank, 2008). The use of pictures and working in the third person enables communities to share information and plan in a manner which does not disadvantage illiterate people and allows people to express their feelings without exposing themselves.
Weaknesses	Requires in-depth training of community workers in participatory techniques. On average two weeks are needed for this training to be completed, to be followed up by regular refresher courses. The identification and selection of the community workers is crucial. It is generally necessary to select experienced community workers to take part in the training, leading to several potential problems. ◗ Experienced community workers may not adapt to participatory approaches easily. ◗ The PHAST approach requires that community workers have certain character traits: e.g. they must be outgoing, with a good sense of how the community responds to the participatory tools so that immediate adaptations can be made during implementation. Requires an intensive management structure. Feasible in smaller "grass-roots" projects but problematic when going to scale. PHAST tools are relatively time intensive in their use, requiring that the beneficiary communities are available to go through the participatory exercises; this may be seen as a burden if not properly discussed with the community beforehand. (World Bank, 2008). These weaknesses can lead to PHAST being used incorrectly and so being largely ineffective.

Evidence of effectiveness

Published internal evaluations	Lilonde, R. (undated). PHAST Overview: WSP-EA, World Bank. http://www.wsp.org/UserFiles/file/319200741517_PHASTоverview.pdf – Accessed March 2010. WSP (1998). Prospective Review Of PHAST. WSP-World Bank http://www.wsp.org/UserFiles/file/319200741041_participatoryhgieneandsanitationpdf.pdf – Accessed March 2010.
Published external evaluations	Biran, A. (2008) Hygiene promotion, social marketing and the IRC. LSHTM, London, UK. Malebo, H.M. et al. (2007). Evaluation of performance of the PHAST strategy in Tanzania. Focusing on Effectiveness and Sustainability of Water, Sanitation and Hygiene Activities in Four Districts of Mainland Tanzania. WaterAid, UNICEF, WSP and the Ministry of Health and Social Welfare, Tanzania.
What are impacts, outcomes and sustainability issues?	An early evaluation by WSP (1998) commented that PHAST works and is effective in the promotion of sustainable hygiene behaviour and improved sanitation. However, more recently, Malebo et al. (2007) found that in Tanzania, where PHAST has been used for over eight years, it is effective at conveying key health messages but not so effective at invoking improved hygiene behaviour change. In addition, Biran (2008) notes that while no rigorous evaluation of PHAST has been carried out, it is heavily reliant on the skills of the facilitator and is difficult to implement effectively at scale. Conditions on the ground mean that PHAST is generally implemented sub-optimal as a series of activities that are done in a community rather than as a community-led process of change.
How much does it cost?	Malebo et al. (2007) found the estimated per capita cost to be $3.83 in Tanzania, while Sugita (2006) comments that the annual cost (of four programmes using PHAST in Uganda) was US$ 0.49 per person.
Human resource requirement?	Its application requires a lot of resources in terms of commitment, human resources (and financial support). The actual cost is not specified.
How long does it take?	PHAST tools are relatively time-intensive in their use. The actual time required is not specified.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	World Bank (2008). Website pages on Sanitation, Hygiene and Wastewater Resource Guide, Hygiene Promotion Approaches – Accessed March 2010.
Toolkits or guidebooks	Sawyer, R., Simpson-Hébert, M. and Wood, S. (1998). PHAST Step-by-Step Guide: a participatory approach for the control of diarrhoeal disease. WSP/World Bank, UNDP and WHO. Geneva, Switzerland. http://www.who.int/water_sanitation_health/hygiene – Accessed March 2010.
Further reading	Sasaki, S., Nyirenda, F., Mulenga, P. and Suzuki, H. (2006) Participatory approach to promote hygiene and sanitary practice in informal-urban areas, Lusaka, Zambia. 32nd WEDC International Conference, Colombo, Sri Lanka. Sugita, E. (2006). PHAST: Experiences and lessons from Uganda. WSP-Africa, Nairobi, Kenya. Waterkeyn, A. and Waterkeyn, J. (2004).Taking PHAST the Extra Mile Through Community Health Clubs. Report submitted to WSP-EA/World Bank. Simpson-Hebert, M., Sawyer, R. and Clarke, L. (1997). The PHAST Initiative: Participatory Hygiene and Sanitation Transformation – A new approach to working with communities. WSP/World Bank, UNDP and WHO. http://whqlibdoc.who.int/hq/1996/WHO_EOS_96.11.pdf – Accessed March 2010.

Additional information for PHAST was provided by Anthony Waterkeyn, Africa AHEAD, Zimbabwe.

[H1.2] CHILD HYGIENE AND SANITATION TRAINING (CHAST)

CHAST is a recently-developed approach for promoting good hygiene among children living in the rural areas of Somalia. It is based upon the PHAST approach and uses a variety of exercises and educational games to teach children about the direct links between personal hygiene and good health.

Summary table

Goal	Hygiene behaviour change.		
Target group	Children ☒	Individuals ☐	Household ☐
	Community ☐	Schools ☐	Society ☐
How applied to date?	Rural ☒	Urban ☐	Informal-urban ☐
	Pilot ☒	Expanding ☐	At scale ☐
	In one country ☐	In more than one country ☒	
	In more than one region ☐	Worldwide ☐	

Description

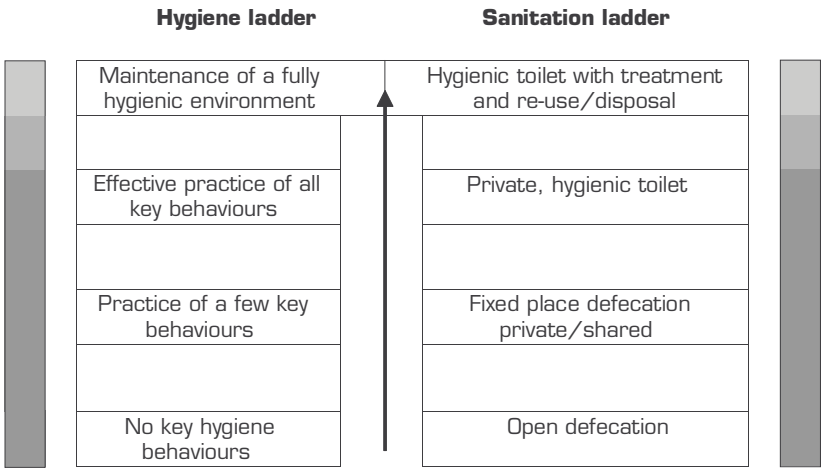
CHAST is based on the proven premise that personal hygiene practices are usually acquired during childhood – and that it is much easier to change the habits of children than those of adults. Because the PHAST approach was initially designed for adults, it has been carefully revised and adapted to suit the needs of young children. While children have less knowledge and experience, fewer responsibilities and a different conception of time and the future, they are also naturally inquisitive and eager to learn.

The CHAST approach takes advantage of these natural attributes. CHAST encourages children to actively participate in open discussions and, wherever possible, to share their experiences and ideas with their peers.

In the CHAST exercises, children are encouraged to work independently in pairs or in small groups, and then to present their thoughts and findings to the larger group. Above all else, CHAST tools are meant to be fun – involving games, exercises and role-plays that prompt the children to discuss and genuinely understand the key issues related to personal cleanliness and hygiene.

CHAST is closely connected to the PHAST approach and uses similar participatory methods. PHAST facilitators need only minimal further training to understand the special learning requirements of children, and to familiarise themselves with the main CHAST tools and methods.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	2002 **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	SwissGroup/Caritas Switzerland/Luxembourg Somalia
Funding from (name of donor agencies, if applicable)	European Union and the Governments of Switzerland and Luxembourg.
Countries used in to date	Somalia, Kenya, South Sudan.
Experience to date	"CHAST is a good approach to participatory education about water, sanitation and hygiene; including the development of improved behaviours not only among children of different ages but also by extension to their parents. To date no study has been carried out to determine its cost-effectiveness, challenges as well as costs for replication and scaling up". (Beth Karanja, NETWAS, Kenya by email).

Perceived strengths and weaknesses

Strengths	None specifically known but broadly similar to PHAST.
Weaknesses	None specifically known but broadly similar to PHAST.

Evidence of effectiveness

Published internal evaluations	None
Published external evaluations	None
What are impacts, outcomes and sustainability issues?	Insufficient data.

Evidence of effectiveness

How much does it cost?	Insufficient data.
Human resource requirement?	Insufficient data.
How long does it take?	Insufficient data.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	de Vreede, E. (2004).CHAST Children's Hygiene and Sanitation Training. School Sanitation and Hygiene Education Symposium: The Way Forward: Construction is not enough. IRC Delft, the Netherlands. http://www.irc.nl/page/13170 – Accessed March 2010.
Toolkits or guidebooks	Bockhorn-Vonderbank, M. (2003). Children's Hygiene and Sanitation Training: A Practical Guide. Caritas Luxembourg / Caritas Switzerland (SwissGroup). http://ochaonline.un.org/OchaLinkClick.aspx?link=ocha&docId=1108772 – Accessed March 2010.
Further reading	None

Additional information for CHAST was provided by Beth Karanja, NETWAS, Kenya.

[H1.3] COMMUNITY HEALTH CLUBS (CHC)

Community Health Clubs (CHC) are free voluntary, community-based organisations formed to provide a forum for information and good practice relating to improving family health. They vary in size and composition from 40 to 200 people, men, women and children of all levels of education, and are facilitated by a health extension worker trained in participatory health promotion activities.

Summary table

Goal	Hygiene behaviour change.				
Target group	Children	☒	Individuals	☒	Household ☒
	Community	☒	Schools	☐	Society ☐
How applied to date?	Rural	☒	Urban	☐	Informal-urban ☒
	Pilot	☐	Expanding	☒	At scale ☐
	In one country	☐	In more than one country	☒	
	In more than one region	☐	Worldwide	☐	

Description

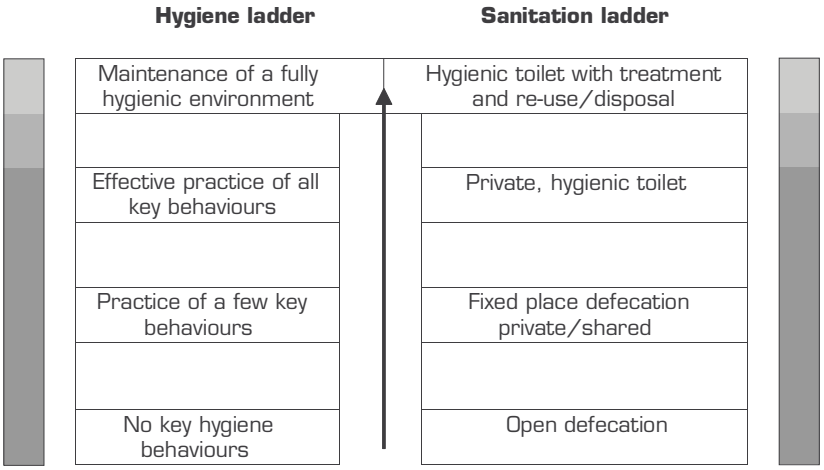
Community Health Clubs (CHC) help to promote a 'culture of health' where healthy living becomes highly valued, bringing about behaviour change, through peer pressure and the desire to conform. The main activity is the holding of regular meetings to learn about and discuss ways to improve household and community hygiene. The meetings are properly-organised sessions with a registered membership, which is open to any community member, irrespective of age, gender, education or disability and facilitated by either trained government health extension workers or by trained facilitators from the target community. As women tend to be the family member most concerned with health matters they are often trained as the facilitators and on the whole form the core of each CHC membership.

Weekly meetings of CHCs can address up to 30 different topics over a six month period. Each session encourages active participation from all registered members and requires members to practice their new learning at home through weekly recommended practices, or homework assignments. These can involve simple changes such as covering stored water or using a ladle, to more demanding challenges like building latrines or protecting communal water sources. These progressive changes are achieved by encouraging dialogue amongst CHC members, resulting in changes to community norms and values associated with WASH practices.

All members are issued with a membership card, listing the topics covered and recommended practices to be implemented at home. This is important as it provides a sense of identity and encourages others to join, setting learning targets, acting as a monitoring tool for programme managers and preventing gatecrashers from reaping unearned benefits. Attendance certificates are awarded to each member who completes all health promotion sessions and implements all the recommended practices at home, which confer important social status and are a huge incentive for members to complete the health promotion phase.

Although CHCs can move on to wider development initiatives other than hygiene promotion, this is a good first step that builds community understanding and consensus. CHCs become truly representative community-based organisations (CBOs), with a tried and trusted leadership, handling considerable resources, and with the necessary monitoring systems in place.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	1994 **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	Zimbabwe Applied Health Education and Development (AHEAD) an NGO. Makoni District, Zimbabwe.
Funding from (name of donor agencies, if applicable)	Department for International Development (DFID, UK) and DANIDA.
Countries used in to date	Zimbabwe, Sierra Leone, Guinea Bissau, Uganda, South Africa and Ethiopia.
Experience to date	The approach has only been used in Africa but it has been found to be effective and works within a variety of rural African social structures and contexts. CHCs have been implemented effectively in 'standard' WASH projects (Zimbabwe, Ethiopia, South Africa), internally displaced people (IDP) camps (Uganda), post-conflict situations (Sierra Leone), maternal and child health projects (Guinea Bissau) and most recently in informal settlements (South Africa).

Perceived strengths and weaknesses

Strengths	The benefits are wide ranging for members of a CHC, including increased learning, raised social status (especially for women) and opportunities for new income-generating activities because of better health. Benefits also extend beyond immediate participants to other family members. CHCs empower women and strengthen their position within the family and community at large. It does not require participants to be literate in order to be successful. CHCs have knock-on social effects; the hypothesis that CHCs increase a community's social capital, a key ingredient to successful and sustainable development initiatives, is currently being tested. CHCs are effective at any point along the hygiene and sanitation ladders because the focus is on community dialogue and the creation of common unity to improve the health practices within a community. Reliance on community monitoring of progress encourages social support and enhances the adoption of recommended practices.

Perceived strengths and weaknesses

Weaknesses	The six-month period of health education is sometimes a detractor from donor enthusiasm as they would rather see infrastructure improvements. Men are not always active participants, at least in the first few rounds of admissions, limiting the overall adoption of recommended practices as well as their voice and participation in communal development projects. When using skilled community members directly employed by the implementing agency the sustainability of the project can be reduced as the responsibility for hiring and paying the facilitators must be sustained over time. Depending upon the facilitator, limited youth involvement, which would require a parallel school CHC project.

Evidence of effectiveness

Published internal evaluations	Waterkeyn, J. and Cairncross, S. (2005). Creating demand for sanitation and hygiene through Community Health Clubs: a cost-effective intervention in two districts of Zimbabwe. 61. Social Science & Medicine. p.1958-1970 http://africaahead.org/wp-content/uploads/2008/01/creating-demand-for-sanitation-and-hygiene-through-chc_cost-effective-in-zimbabwe_waterkeyn_cairncross_2005.pdf – Accessed March 2010.
Published external evaluations	Poverty-Environment Partnership (2008). Placing Environmental Health on Countries' Development Agendas; Poverty-Environment Partnership, Joint-Agency Paper. http://www.unpei.org/PDF/Pov-Health-Env-CRA.pdf – Accessed March 2010. Sidibe, M. and Curtis, V. (2002) Hygiene Promotion in Burkina Faso and Zimbabwe: New Approaches to Behaviour Change. Field Note No. 7 in the Blue Gold Series, Water and Sanitation Program – Africa Region, Nairobi. http://www.wsp.org/UserFiles/file/af_bg_bf-zm.pdf – Accessed March 2010.
What are impacts, outcomes and sustainability issues?	**Outcomes:** Within 2 years of start up, 2400 latrines had been built in Makoni, and in Tsholotsho, Zimbabwe, latrine coverage rose to 43% contrasted to 2% in the control area (Waterkeyn and Cairncross, 2005). The remaining 57% of club members without latrines in Tsholotsho all practised faecal burial, a method previously unknown to them. Other proxy indicators, such as covering stored water, utilising soap for handwashing and upgrading latrines were also widely practised. **Impacts:** Club members' hygiene was significantly different from a control group across 17 key hygiene practices including handwashing, showing that if a strong community structure is developed and the norms of a community are altered, sanitation and hygiene behaviour are likely to improve (Waterkeyn and Cairncross, 2005). Waterkeyn (2009) also reports that no cases of cholera were reported in the Makoni District of Zimbabwe (where CHCs have been active since 1994) during the 2009 cholera outbreak. **Sustainability:** Once CHCs transition from health promotion into CBOs, they need an initial level of support and mentoring, but over time they can become entirely independent of external monitoring and support. CHCs in Makoni District of Zimbabwe offer evidence of the sustainability of the practices adopted by club members as well as the development initiatives they have undertaken, which include the creation of a community centre for meetings, selling goods developed by members and supporting vulnerable members of the population (Waterkeyn, 2009).
How much does it cost?	Cost calculated at US$ 0.52 per person per year (Sidibe and Curtis, 2002). Once the health clubs are established, they can be continued at nominal expense, with minimal monitoring; thus over time the costs per beneficiary fall (Africa AHEAD, Undated).

Evidence of effectiveness

Human resource requirement?	Depending upon the method of implementation, this can vary by project. If utilising trained Ministry of Health extensions workers as in Zimbabwe (Environmental Health Officers), these external agents conduct the health sessions and monitor the progress of their registered members. If using a 'community-based' approach, then skilled facilitators from each target community are tasked with implementation and monitoring.
How long does it take?	A minimum of six months are required to complete the health promotion phase, but from experience it can take up to four years for all members of a targeted community/ area to enrol and graduate (Waterkeyn and Cairncross, 2005).

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	Africa AHEAD (undated). Homepage. [online] Available at http://www.africaahead.org/tag/health-clubs/ Accessed March 2010. Waterkeyn, A. (2009). Personal communication.
Toolkits or guidebooks	Waterkeyn, J. (2007). Community Health Clubs in Informal Settlements: A Training Manual for Community Workers using Participatory Activities. City of Cape Town Health Department/Africa AHEAD, South Africa. Waterkeyn, J. (2006). District Health Promotion using the Consensus Approach. WELL/DFID/ LHSTM, UK http://africaahead.org/wp-content/uploads/2008/01/district-health-promotion-using-the-consensus-approach_chc-manual.pdf – Accessed March 2010.
Further reading	Waterkeyn, J., Matimati, R. and Muringaniza, A. (2009). Scaling up the Community Health Club Model to meet the MDGs for sanitation in rural and urban areas: Case Studies from Zimbabwe and Uganda. Case Study produced for IWA Conference, Mexico City. http://www.africaahead.org/wp-content/uploads/2010/01/Zim-Case-Study.pdf – Accessed March 2010. Rosenfeld, J. and Waterkeyn, J. (2009). Using Cell Phones to Monitor and Evaluate Behavior Change Through Community Health Clubs in South Africa. 34th WEDC International Conference, Addis Ababa, Ethiopia. http://wedc.lboro.ac.uk/resources/conference/34/Rosenfeld_J_-_192.pdf – Accessed March 2010. Barebwoha, G. (2007). Girl's education movement (GEM) clubs in promoting water, sanitation and hygiene in schools. Paper presented at national Symposium for Women Leaders on Water, Sanitation and Hygiene From Vision To Action; WASH for All, Kampala, Uganda, 2007 http://www.wsscc.org/fileadmin/files/pdf/publication/GEM_clubs.pdf – Accessed March 2010. Okot, P., Kwame, V., and Waterkeyn, J. (2005). Rapid Sanitation Uptake in the Internally Displaced People Camps of Northern Uganda through Community Health Clubs. 31st WEDC Conference, Kampala, Uganda. Waterkeyn, J and Waterkeyn, A (2000). Demand led sanitation in Zimbabwe. 26th WEDC Conference, Water, Sanitation and Hygiene: Challenges for the Millennium. Dhaka, Bangladesh. Mathew, B. and Mukuwe, R. (1999). Health Clubs – Hygiene Education in Bikita IRWSSP. 25th WEDC International Conference, Addis Ababa, Ethiopia. Fisher, J. (undated). The Consensus Approach: Health promotion through Community Health Clubs. Briefing Note 38). WELL, UK http://www.lboro.ac.uk/well/resources/Publications/Briefing%20Notes/BN%2038%20Consensus.htm – Accessed March 2010.

Additional information for CHCs was provided by Anthony Waterkeyn and Jason Rosenfeld, Africa AHEAD, Zimbabwe.

[H1.4] WASH IN SCHOOLS

Water, Sanitation and Hygiene (WASH) in schools (originally known as School Sanitation and Hygiene Education (SSHE)) focuses on providing children with an effective and healthy learning environment and changing the hygiene behaviour of school children. It both recognises and utilises the ability of school children to act as change-agents within a community.

Summary table

Goal	Hygiene behaviour change.				
Target group	Children	☒	Individuals	☐	Household ☐
	Community	☒	Schools	☒	Society ☐
How applied to date?	Rural	☒	Urban	☒	Informal-urban ☒
	Pilot	☐	Expanding	☒	At scale ☐
	In one country	☐	In more than one country	☐	
	In more than one region	☐	Worldwide	☒	

Description

WASH in Schools is a holistic approach that deals with both hardware and the software aspects needed to bring about changes in hygiene behaviour of students and, through these students, in the community at large. The hardware is defined as 'the total package of sanitary conditions and facilities available in and around the school compound'. The software is defined as 'the activities aiming to promote conditions at school and practices of school staff and children that help to prevent water and sanitation-related diseases'.

The approach recognises that a schoolchild educated to the benefits of sanitation and good hygiene behaviour is a conduit for carrying those messages far beyond the school walls, bringing lasting improvement not only to his or her health and wellbeing, but also to that of the family and the wider community.

School sanitation and hygiene education interventions vary depending on the situation. An effective WASH in School programme usually contains the following types of activities:

- Training of Trainers or orientation of community and parent groups such as the school management committee, parent teacher association leaders and self help groups;
- Parents (rich and poor), teachers and community groups decide on the technology, designs and payments using participatory tools;
- Baseline survey or school study;
- Preparation of water and sanitation (WATSAN) plan and community contribution;
- Training of teachers and head teachers, providing lesson plans and materials;
- Classroom teaching, for example, one hour a week;
- Active school clubs with children in school, home and community;
- Construction of water points, toilets and urinals, handwashing and water storage;
- Continued use, maintenance of facilities and monitoring in the school.

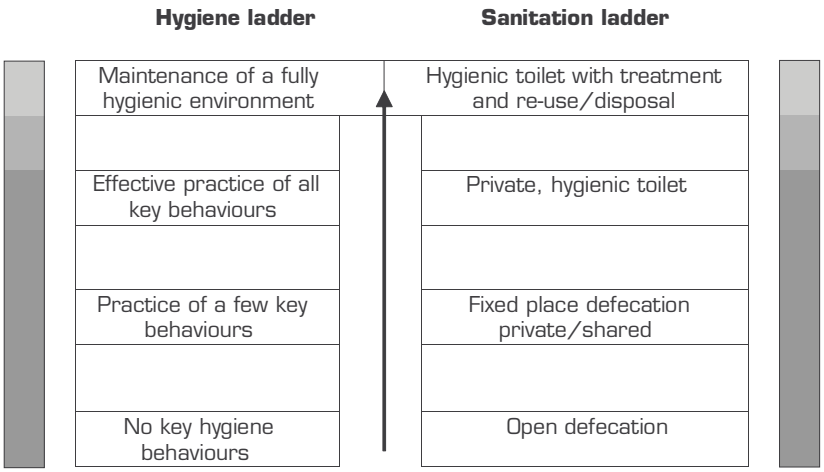
Description

When the above conditions are operative, an effective WASH in Schools programme exhibits the following key components:

- A healthy physical school environment;
- Active and organised children;
- Community and parent participation in Wash in Schools;
- Trained and committed (active) school personnel;
- Hygiene education forming health behaviours;
- Facilities in place;
- Good use and maintenance of water and sanitation facilities; and
- Strong links to home and community.

Some countries have initiated "WASH Friendly Schools" programmes that have written standards that schools must achieve and official assessment committees who determine if schools are ready to obtain the coveted label.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	1998 **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	International Water and Sanitation Centre (IRC), UNICEF and WHO. Piloted in six countries Burkina Faso, Colombia, Nepal, Nicaragua, Vietnam, and Zambia.
Funding from (name of donor agencies, if applicable)	DFID, DGIS-SNV, USAID, UNICEF, WHO, The World Bank.
Countries used in to date	A number of countries in Asia, Africa and Latin America.
Experience to date	Building effective multi-stakeholder partnerships is critical to the success of WASH in Schools. For example, within the state education system in each country the Ministry of Education is in charge of schools, but the provision of school water supply and sanitation facilities may be the responsibility of a different ministry. Therefore, a high level of advocacy is usually needed and coordination and collaboration between the Ministry of Education and other stakeholders. Inter-sector cooperation is the key issue in achieving WASH in Schools success. It is recognised that poor coordination and collaboration has hindered success in most situations (IRC/UNICEF, 2007).

Perceived strengths and weaknesses

Strengths	Uses the existing network of schools in each country and the children, teachers and parents involved within each to influence behaviour change. It has a direct benefit to school-age children, particularly girls, as well as an indirect benefit to the community at large.
Weaknesses	This is a moderately expensive approach. Teachers require training in hygiene and sanitation promotion and training materials have to be provided for their use. It also incorporates hardware provision – this may include new toilets and washing facilities – clearly this will increase expenditure as the approach costs will also include construction materials, labour and management of the building work. Of course if the hardware is already in place then the costs are greatly reduced.

Evidence of effectiveness

Published internal evaluations	Shordt, K., Snel, M., Cairncross, S., Biran, A. and Schmidt, W. (2008). Summary of results of the study on the impact and sustainability of WASH in schools research: Kenya and Kerala, 2006-2007. NETWAS Network for Water and Sanitation, Nairobi, Kenya; the London School of Hygiene and Tropical Medicine (LSHTM) and IRC International Water and Sanitation Centre, Delft, the Netherlands. http://www.irc.nl/page/48277 – Accessed March 2010. Bolt, E., Shordt, K. and Krukkert, I (2006). School Sanitation and Hygiene Education Results from the assessment of a six-country pilot project. IRC International Water and Sanitation Centre, Delft, the Netherlands. http://www.schoolsanitation.org/Resources/Readings/UNICEF6Country.pdf – Accessed March 2010. Snel, M. (2003).School Sanitation and Hygiene Education, Thematic Overview Paper. IRC. http://www.irc.nl/redir/content/download/4331/51919/file/sshe.pdf – Accessed March 2010.
Published external evaluations	None.
What are impacts, outcomes and sustainability issues?	Bolt et al. (2006) state that the six-country study of school sanitation by UNICEF showed that in all cases where the project schools were compared to control schools, the project schools performed better for virtually all indicators. Significant impacts described by Shordt et al. (2008) are that classes where more girls washed hands and where nearly all used the toilet tended to have better attendance; and that people, usually mothers, in the intervention communities were twice as likely to have soap in toilets as in control communities (68% versus 34%). However, soap was seldom used in schools for handwashing – in both Kenya and Kerala, about two percent of the children used soap to wash their hands.
How much does it cost?	In UNICEF's six-country pilot study (1999-2003), the costs of the WASH programme per school ranged from $1,400 up to $16,000, with annual per child costs ranging from $2.4 to $16 when calculated over a five-year period (IRC, 2007).
Human resource requirement?	Requires training of teachers within each school in order to be effective.
How long does it take?	Insufficient data.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	WASH in Schools website. IRC International Water and Sanitation Centre, Delft, Netherlands: Website available at: http://www.irc.nl/page/114 – Accessed March 2010. Toolkit on hygiene, sanitation and water in schools website. UNICEF/IWSC/WB (United Nations Children's Fund / International Water and Sanitation Centre / World Bank) (2005). Website available at www.schoolsanitation.org – Accessed March 2010.
Toolkits or guidebooks	Adams, J., Bartram, J., Chartier, Y. and Sims, J. (2009). Water, sanitation and hygiene standards for schools in low-cost settings. The World Health Organization (WHO), Geneva, Switzerland. Available at http://www.who.int/water_sanitation_health/publications/wsh_standards_school/en/index.html – Accessed March 2010. Snel, M. and Mooijman, A. (2009). Water, Sanitation and Hygiene in Schools –South Asia Manual. UNICEF, Geneva and IRC International Water and Sanitation Centre, Delft. IRC/UNICEF (2007).Towards Effective Programming for WASH in Schools: A manual on scaling up programmes for water, sanitation and hygiene in schools. Delft, The Netherlands, IRC International Water and Sanitation Centre. http://www.irc.nl/page/37479 – Accessed March 2010. Shordt, K. and Snel, M. (2006). SSHE Handbook for Managers. UNICEF India and IRC International Water and Sanitation Centre, Delft, the Netherlands. Snel, M. and Shordt, K. (2006). SSHE Handbook for Teachers. UNICEF India and IRC International Water and Sanitation Centre, Delft, the Netherlands. Khamal, S., Mendoza, R., Phiri, C., Rop, R., Snel, M. and Sijbesma, C. (2005). Participatory lesson plans on hygiene, sanitation, water, health and the environment. ISBN: 90-6687-0532. World Bank (2005). Toolkit on Hygiene, Sanitation and Water in Schools. http://www.schoolsanitation.org/ Accessed March 2010.
Further reading	Mooijman, A. and Zomerplaag, J. (2005). Child-friendly hygiene and sanitation facilities in schools. Indispensable to effective hygiene education. ISBN: 90-6687-050-8. Snel, M., Shordt, K. and Tibatemwa, S. (2005). Critical issues regarding the planning of school sanitation and hygiene education (SSHE) programmes in India 31st WEDC International Conference, Maximising the benefits from water and environmental sanitation. Kampala, Uganda. Postma, L., Getkate, R., and Sijbesma, C. (2004). Life skills-based hygiene education. A guidance document on concepts, development and experiences with life skills-based hygiene education in school sanitation and hygiene education programmes. Technical Paper Series; no. 42. IRC International Water and Sanitation Centre. Delft, The Netherlands http://www.irc.nl/page/10453 – Accessed March 2010. Snel, M., Shordt, K. and Mooijman, A. (2004). School Sanitation and Hygiene Symposium: The Way Forward, Construction is Not Enough, Symposium Proceedings and Framework for Action. Delft, The Netherlands, IRC International Water and Sanitation Centre. http://www.irc.nl/page/16710 – Accessed March 2010. Snel, M., Shordt, K. and de Graaf, S. (2003). School Sanitation and Hygiene Education indicators. 29th WEDC International Conference, Towards the Millennium Development Goals, Abuja, Nigeria. Snel, M. and Shordt, K. (2002). School water and sanitation towards health and hygiene in India. 28th WEDC International Conference, Sustainable Environmental Sanitation and Water Services. Kolkata (Calcutta), India.

Additional information for WASH in Schools was provided by Marielle Snel, IRC, Netherlands and Merri Weinger, Sandra Callier and Sarah Fry of HIP/USAID.

[H1.5] CHILD-TO-CHILD APPROACH (CTC)

Child-to-Child is a rights-based approach to children's participation in health promotion and development. Through participating in Child-to-Child activities the personal, physical, social, emotional, moral and intellectual development of children is enhanced. The Child-to-Child approach is an educational process that links children's learning with taking action to promote the health, well-being and development of themselves, their families and their communities (Child to Child Publicity (2004)).

Summary table

Goal	Hygiene behaviour change.				
Target group	Children	☒	Individuals	☒	Household ☒
	Community	☐	Schools	☒	Society ☐
How applied to date?	Rural	☒	Urban	☒	Informal-urban ☒
	Pilot	☐	Expanding	☐	At scale ☒
	In one country	☐	In more than one country	☐	
	In more than one region	☐	Worldwide	☒	

Description

The Child-to-Child approach (CtC) is grounded in the United Nations Convention on the Rights of the Child. It is a practical way in which children's rights can be effectively implemented and addresses children's right to survival, protection, development and participation. The Convention's guiding principles of inclusion, non-discrimination and being in the best interests of the child underpin the Child-to-Child approach which states that it is "a child's right and responsibility to participate in health and education as well as their right to play".

Child-to-Child ideas and activities represent an approach to health education. They do not constitute an alternative programme. It is more accurate and beneficial to view Child-to-Child activities as components that may be integrated with broader health education programmes that are either at the planning stage or already in operation. The distinguishing characteristics of Child-to-Child are the direct involvement of children in the process of health education and promotion and the nature of their involvement. The most effective programmes are those that involve children in decision making rather than merely using them as communicators of adult messages and use group activities which are integral to the Child-to-Child approach.

Wherever Child-to-Child activities take place, there is potential for children to promote better health:

- To younger children;
- To children of the same age;
- In their families and communities.

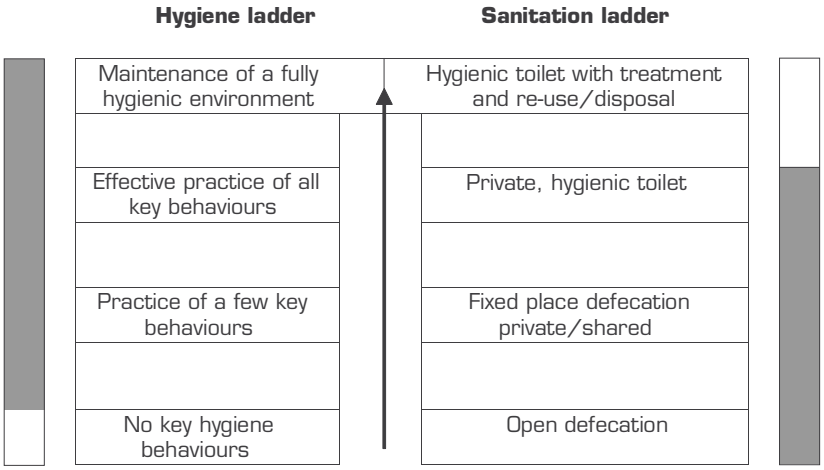
The Child-to-Child approach links children's learning (in or out of schools) with their lives (home and community) so that knowledge translates into behaviour and action.

The Child-to-Child matrix shows how a child or children can participate in health and development.

One child or A group of children	• spreading knowledge to • teaching skills to • demonstrating by example to • working together with	• younger child/children • a same-aged child/children • a family/families • the community

Source: Child to Child website.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	1987 **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	The Child-to-Child Trust was formally established in 1987 and is based at the University of London's Institute of Education.
Funding from (name of donor agencies, if applicable)	The Child to Child Trust is funded by many governments and major international agencies, for example UNICEF, WHO, UNESCO and by many non-governmental organisations; including Save the Children, PLAN International, the Aga Khan Foundation, Concern Worldwide, WaterAid, PLAN International, USAID, Water for People, Save the Children, GOAL Ireland, Comic Relief. The approach is incorporated in the programmes of these governments, agencies and organisations.
Countries used in to date	Used worldwide in over 70 countries.
Experience to date	The Child-to-Child approach has been implemented since 1978. Education, Health Promotion and Community Development Programmes using the approach are active in over 70 countries. Since its inception, Child-to-Child approaches have contributed to key health activities in hygiene, water and sanitation and disease prevention. Currently particular thematic areas have also been identified where the approach is seen to have a great and lasting impact such as: ◗ Health Education and Promotion in Schools; ◗ Early Childhood Development; ◗ Children in communities affected by HIV/AIDS; ◗ Adolescent Reproductive and Sexual Health; ◗ Inclusive Education; and ◗ Children in Difficult Circumstances. The Child-to-Child Trust coordinates a worldwide network of CtC practitioners and acts as an advocacy body for the Child-to-Child approach. The Trust also produces publications and teaching aids for the implementation, monitoring and evaluation of the approach.

Perceived strengths and weaknesses

Strengths	Facilitates children's understanding of development issues and why healthy behaviours are important. Encourages children to take ownership and identify health and development priorities relevant to themselves and their communities. Develops children's decision-making and problem solving abilities in order to take action on identified priorities. Recognises children's capacities as change agents, who require the facilitative support but not the dominance of adults (Child to Child Publicity, 2004).
Weaknesses	Pridmore and Stephens (2000) identify the following weaknesses in the approach: The spread of the movement is far too dependent on the charisma and personalities of its founding fathers. The approaches could lead to the exploitation of children rather than encourage their empowerment. The teaching-learning methods are teacher-centred and require training to be used effectively.

Evidence of effectiveness

Published internal evaluations	Hawes, H. (2005). Survey of Child-to-Child Activities Worldwide. The Child-to-Child Trust. London, UK. Carnegie, R. (2004). Child-Centred Approaches to HIV and AIDS and CCATH. Child-to-Child Trust, London. Carnegie, R and Khamis, T. (2002). Quest for Quality: An Evaluation of the Health Action Schools Project. Child-to-Child Trust, London. Smith, K. (2001). Health Education Project of the Aga Khan Foundation Gorno-Badakshan, Tajikistan. Child-to-Child Trust, London.
Published external evaluations	Pridmore, P. and Stephens, D. (2000) Children as Partners for Health – A critical review of the Child-to-Child Approach. Zed Books. London.
What are impacts, outcomes and sustainability issues?	Pridmore and Stephens (2000) comment that the approach is not clearly defined, leaving open debate about what CtC is and what it is not. The common view is that CtC is children teaching other children about health but the authors argue for the need to "encourage and facilitate the use of CtC ideas and methods within existing programmes not owned by CtC". Evidence for CtC's effectiveness is weak and "there is a great need for more research to evaluate CtC's effectiveness" (Pridmore and Stephens, 2000). Carnegie and Khamis (2002) observed that "self-esteem and health knowledge were increased among teachers and that stronger links between parents and schools were reported".
How much does it cost?	Insufficient data. It is generally incorporated into other programmes so difficult to ascertain costs.
Human resource requirement?	Requires training of teachers.
How long does it take?	Insufficient data.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	Child to Child website, available at: http://www.child-to-child.org/ Accessed March 2010. Babul, F. (2008). Child-to-Child: A Review of the Literature (1995 – 2007) The Child-to-Child Trust, London, UK. Child to Child Publicity (2004). Child-to-Child An international network promoting children's participation in health and development. Publicity Brochure. London, UK. http://www.child-to-child.org/about/pdfs/C2C-Brochure.pdf – Accessed March 2010.
Toolkits or guidebooks	Bailey, D., Hawes, H. and Bonati, G. (2007). Child-to-Child, A Resource Book (3rd Edition). The Child-to-Child Trust. London, UK. Hanbury-Leu, C. (2007). Monitoring and Evaluating Children's Participation in Health and Development. Hanbury-Leu, C. (2005). Children for Health. The Child-to-Child Trust. London, UK. Pridmore, P. (1999). Participatory Approach to Promoting Health in Schools – a Child-to-Child training manual. The Child-to-Child Trust. London, UK.
Further reading	Muzaffar Bhutta, S. (2006). Health Education Practice in Primary Classrooms: A Study from Pakistan. Unpublished PhD Thesis: Oxford University, UK. UNICEF website, Convention on the Rights of the Child; available at: http://www.unicef.org/crc/ Accessed March 2010.

[H2] MARKETING OF A SINGLE INTERVENTION

This sub-group of approaches are stand-alone interventions. They each focus on changing a very small number of specific hygiene behaviours. These approaches each present a single, easily understood message; this may well lead to an overall change in the behaviour of the individual or community but that is not their primary goal.

The first two approaches described in this section both focus on handwashing and a third approach relates to household water treatment and safe storage. These are understood to be the only *social marketing* interventions currently being pioneered for achieving hygiene behaviour change in developing countries where social marketing is defined as "the use of commercial marketing techniques to promote the adoption of behaviour that will improve the health or well-being of the target audience or of society as a whole" (Weinrich, 1999). Marketing is discussed further in Group S2 Marketing of Sanitation Goods and Services and in the references below.

There are also numerous field studies, projects and reviews that are exploring and have explored the impact of other single interventions; for more information on these see the references in the box to the right.

FOR MORE INFORMATION ON SOCIAL MARKETING SEE:

Weinreich, N.K. (1999). Hands-on Social Marketing: A Step-by-Step Guide. Sage Publications.

Scott, B (2005). Social Marketing: A Consumer-based approach to promoting safe hygiene behaviours. WELL Factsheet. WEDC and LSHTM, UK. http://www.lboro.ac.uk/well/resources/fact-sheets/fact-sheets-htm/Social%20marketing.htm – Accessed March 2010.

For reports on studies into behaviour change as a result of different interventions see:

Schmidt, W. and Cairncross, S. (2009). Household water treatment in poor populations: is there enough evidence for scaling up now? Environmental science & technology; vol. 43, no. 4; p. 986–992. http://pubs.acs.org/doi/abs/10.1021/es802232w – Accessed March 2010.

Nath, K.J., Bloomfield, S.F. and Jones, M. (2006). Household water storage, handling and point-of-use treatment. IFH, UK. http://www.ifh-homehygiene.org/IntegratedCRD.nsf/34e8d616912421cc802575070003a15c/aa885658ec1f19ee802575220055965 3?OpenDocument – Accessed March 2010.

Clasen, T., Roberts, I., Rabie, T., Schmidt, W-P., Cairncross, S. (2006). Interventions to improve water quality for preventing diarrhoea. (Cochrane Review). The Cochrane Library, Issue 3, 2006. Oxford. http://www.cochrane.org/reviews/en/ab004794.html (free abstract) – Accessed March 2010.

Cairncross, S., Shordt, K., Zacharia, S. and Govindan, B.K. (2005). What causes sustainable changes in hygiene behaviour? A cross-sectional study from Kerala, India. LSHTM, UK and IRC, Netherlands. http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VBF-4G94HYO-6&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_version=1&_urlVersion=0&_userid=10&md5=97fa2592819a1fc4ddf039c4bbe2944b (free abstract) – Accessed March 2010.

Luby, S., Agboatwalla, M. Feikin, D., Painter, N., Billhimer, W., Altaf, A. and Hoekstra, R. (2005). Effect of handwashing on child health: a randomized controlled trial. The Lancet. Vol. 366, July 16, 2005 http://www.aku.edu/CHS/pdf/SoapHealth_ARI_Lancet_Man.pdf – Accessed March 2010.

Curtis, V. and Cairncross, S. (2003). Effect of washing hands with soap on diarrhoea risk in the community: a systematic review. The Lancet Journal of Infectious Diseases, Vol. 3, May 2003, pp 275-281. http://www.globalhandwashing.org/Publications/Attachments/CurtisHandwashing.pdf Accessed March 2010.

Curtis, V., Cairncross, S. and Yonli, R. (2001). Domestic hygiene and diarrhoea – pinpointing the problem. Tropical Medicine and International Health, 2001, Vol. 5 (1), 22-32. UK. http://www.hygienecentral.org.uk/pdf/pinpointing.pdf – Accessed March 2010.

For a recent review of various handwashing programmes see:

Shordt, K. (2006). Review of handwashing programs. HIP and IRC. Delft, The Netherlands. http://www.irc.nl/page/31717 – Accessed March 2010.

[H2.1] SANIYA

The Saniya approach focuses on promoting a small number of safe hygiene practices based on the existing local motivation for hygiene and using local channels of communication to reach the target groups. The objective of Saniya is to reduce diarrhoeal disease in children. It focuses on safe disposal of children's excreta and washing hands with soap after contact with faecal matter.

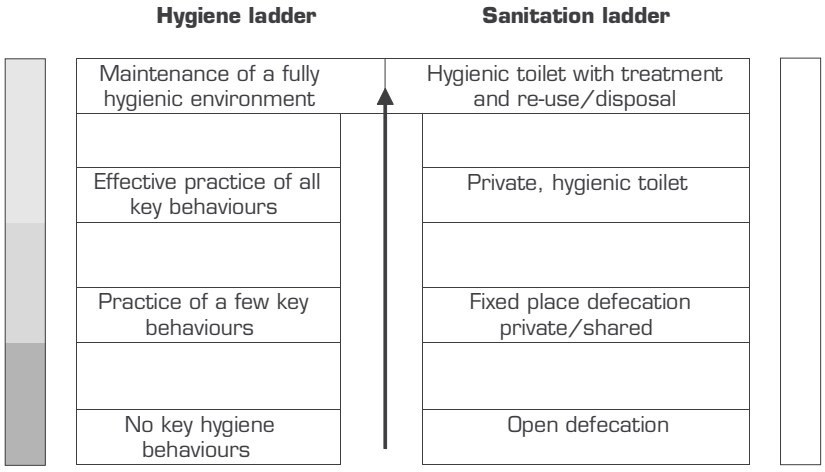
Summary table

Goal	Hygiene behaviour change.				
Target group	Children	☒	Individuals	☒	Household ☒
	Community	☐	Schools	☐	Society ☐
How applied to date?	Rural	☐	Urban	☒	Informal-urban ☐
	Pilot	☒	Expanding	☐	At scale ☐
	In one country	☒	In more than one country	☐	
	In more than one region	☐	Worldwide	☐	

Description

The Saniya approach holds that an effective hygiene promotion programme must be based on what people know, what they do and what they want. Formative research is used to answer these questions and develop messages for a hygiene communication campaign. The campaign uses radio, theatre groups, presentations to the community by health staff and teaching in schools as well as face-to-face domestic visits to communicate its messages.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	1995 **Year ended (if applicable)** 1998
Origins (who by and where was it invented)	Ministry of Health of Burkina Faso with technical assistance from the London School of Hygiene and Tropical Medicine (LSHTM). Bobo-Dioulasso (Burkina Faso).
Funding from (name of donor agencies, if applicable)	UNICEF
Countries used in to date	Burkina Faso
Experience to date	Only used in one country so difficult to asses its larger impact but has been the basis or blueprint for further approaches that focus on handwashing with soap **(see approach H2.2 – Public Private Partnership for Handwashing with Soap)**.

Perceived strengths and weaknesses

Strengths	The focus on a small number of practices reduces the number of messages to be promoted and increases the likelihood of beneficiaries picking up the message and changing behaviour. The formative research is flexible and can be easily adapted to different research questions. It provides solutions from interaction with the community while being relatively time efficient. The communication campaign is based on information provided by the beneficiaries and the messages developed reflect their priorities and rationale. This participatory approach targets a specific focus group or groups.
Weaknesses	The formative research requires highly trained and experienced field researchers who can facilitate delicate discussions on what motivates people's behaviour. It may be difficult to find such researchers, and additional training will be needed to improve certain research skills. The approach relies on a mix of different types of promotion from mass media like radio to house to house visits. Monitoring these activities becomes an important part of the programme which needs adequate resources.

Evidence of effectiveness

Published internal evaluations	Sidibe, M. and Curtis, V. (2002). Hygiene Promotion in Burkina Faso and Zimbabwe: New Approaches to Behaviour Change. Field Note No. 7 in the Blue Gold Series, Water and Sanitation Program – Africa Region, Nairobi. http://www.wsp.org/UserFiles/file/af_bg_bf-zm.pdf – Accessed March 2010. Curtis, V., Kanki, B., Cousens, S., Diallo, I., Kpozehouen, A., Sangare, M. and Nikiema, M. (2001). Evidence of behaviour change following a hygiene promotion programme in Burkina Faso. Bulletin of the World Health Organization, 2001, 79 (6) http://www.who.int/bulletin/archives/79(6)518.pdf – Accessed March 2010. Borghi, J.; Guinness, L.; Ouedraogo, J. and Curtis, V. (2002). Is hygiene promotion cost-effective? A case study in Burkina Faso. Tropical Medicine and International Health, Vol. 7, No. 11, p. 960-969, November 2002.
Published external evaluations	None

Evidence of effectiveness

What are impacts, outcomes and sustainability issues?	Sidibe and Curtis (2002) found evidence that the programme resulted in an increase in mothers who were seen to be practicing handwashing after handling children's excreta, rising from 13% before the intervention to 31% after it. However, while some activities seem sustainable others have encountered motivational difficulties.
How much does it cost?	The cost of the intervention was US$ 0.30 per person per year (Sidibe and Curtis, 2002). Borghi et al. (2002) concluded that using the Saniya approach to hygiene promotion reduced the occurrence of childhood diarrhoea in Burkina Faso at less than 1% of the Ministry of Health budget and less than 2% of the household budget, and could be widely replicated at lower cost.
Human resource requirement?	It requires highly trained and experienced field researchers who can facilitate delicate discussions on what motivates people's behaviour.
How long does it take?	The Saniya project lasted for three years.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	World Bank (2008). Website pages on Sanitation, Hygiene and Wastewater Resource Guide, Hygiene Promotion Approaches – Accessed March 2010.
Toolkits or guidebooks	Curtis, V. and Kanki, C (1999). Towards Better Programming: A manual on hygiene promotion. Technical Guideline Series. LSHTM and UNICEF, New York, USA. http://www.unicef.org/wash/files/hman.pdf – Accessed March 2010.
Further reading	Other background papers at the Hygiene Central publications webpage, London School of Hygiene and Tropical Medicine at: http://www.hygienecentral.org.uk/menu_publications.htm#methods – Accessed March 2010.

[H2.2] PUBLIC-PRIVATE PARTNERSHIPS FOR HANDWASHING WITH SOAP (PPPHW)

Public-Private Partnerships for Handwashing with Soap promote handwashing with soap in order to reduce diarrhoea. The approach combines the marketing expertise and consumer focus of the soap industry with the institutional strength and resources of governments to forge a partnership that will benefit the whole community.

Summary table

Goal	Hygiene behaviour change.		
Target group	Children ☐	Individuals ☐	Household ☐
	Community ☐	Schools ☐	Society ☒
How applied to date?	Rural ☒	Urban ☒	Informal-urban ☒
	Pilot ☐	Expanding ☐	At scale ☒
	In one country ☐	In more than one country ☐	
	In more than one region ☐	Worldwide ☒	

Description

PPPHWs aim to implement large scale handwashing interventions. The approach targets those most at risk (mothers, children and the poor) across the whole population.

PPPHWs enable private industry and the public sector to work together (with other partners) to develop programmes to promote handwashing. The partners bring a mix of different skills and experience that contribute to the whole approach:

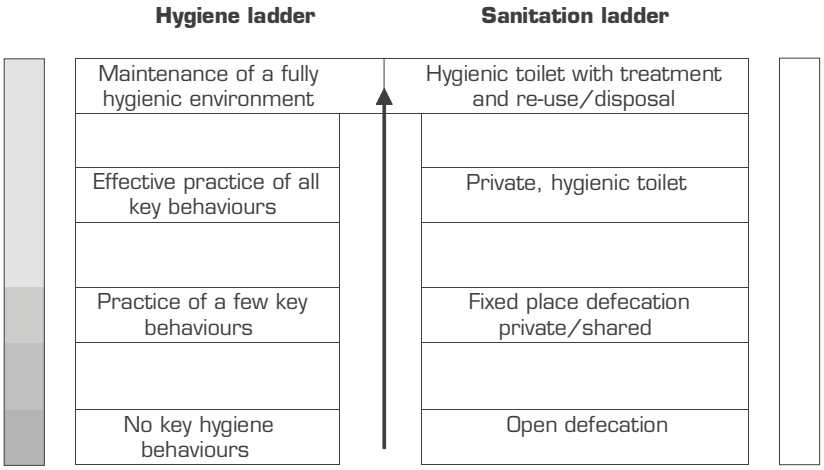
- Governments: to make handwashing a priority measure for preventing disease and to convey messages through national, regional, and local structures and programmes.
- Private industry: to share expertise, expand its markets, and improve soap marketing.
- Donor organisations and NGOs: to apply international lessons and experiences, coordinate technical assistance, and add a handwashing component to their programmes.

Together, country partners implement handwashing programmes in three stages:

- Listening to both individual and community needs and desires through consumer research.
- Applying research to state-of-the-art promotion programmes, making use of a variety of traditional, mass-media, interpersonal, and existing communication channels.
- Monitoring, measuring, and improving the handwashing campaign.

PPPHWs can be set up for any administrative area; this can be a region, country, district or even a city. For example, the Saniya project **(see H2.1)** was a pilot project in one city while the Central American Handwashing for Diarrhoeal Disease Prevention Program implemented by BASICS covered five countries. The Global Public-Private Partnerships for Handwashing with Soap has been set up to coordinate handwashing initiatives; the Secretariat is co-ordinated by the Academy for Educational Development (AED) who work with a number of core partners including, among others, the Water and Sanitation Program, London School of Hygiene and Tropical Medicine, Centers for Disease Control and Prevention, Unilever, Colgate-Palmolive, USAID, UNICEF and WSSCC.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	2001 **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	PPPHW is based on Saniya **(see H2.1)** and on The Central American Handwashing for Diarrheal Disease Prevention Program implemented by BASICS and described in Saadé et al., 2001.
Funding from (name of donor agencies, if applicable)	Bank-Netherlands Water Partnership (BNWP), USAID, the Bill and Melinda Gates Foundation, the Japanese Social Development Fund, the Water and Sanitation Program and the private sector.
Countries used in to date	Africa: Benin, Burkina Faso, Ghana, Kenya, Madagascar, Senegal, Tanzania, Uganda. Asia: China, Indonesia, Laos, Nepal, Vietnam. Latin and Central America: Colombia, Costa Rica, El Salvador, Guatemala, Nicaragua, Panama, Paraguay, Peru. This list is not exhaustive.
Experience to date	The initial programme implemented by the Basic Support for Child Survival Project (BASICS), and reported in Saadé et al., 2001, is widely regarded as highly successful. The Global PPPHWS which acts as a coordinating body and forum for information exchange has proved to be sustainable. The partners have gradually expanded their interventions to a number of countries. A significant annual event of the Global Partnership is Global Handwashing Day; this event is described fully in the box at the end of this section.

Perceived strengths and weaknesses

Strengths	It provides an effective model for handwashing programmes because it combines the health objectives of the public sector with the professionalism and marketing expertise of the private sector, in particular in the design and implementation of the mass-media component of the handwashing campaign. It can also work at a national scale and, after start-up, can operate for long periods with relatively low operational budgets. Private partnerships can also offer new sources of funds.

Perceived strengths and weaknesses

Weaknesses	Putting together a country team with the commitment, resources, and skills to set up, support, and run a national handwashing programme takes time and effort. Public-private partnerships can be slow to build and be even slower to show results: communication between groups with different traditions, aims, and ways of doing business are difficult. Personnel changes frequently require that partnership building be repeated. There can be resistance to the involvement of the private sector from traditional public sector health workers, other government bodies and civil society. The combination of public service with profit makes for an uneasy relationship in some cases.

Evidence of effectiveness

Published internal evaluations	Saadé, C. Bateman, M. and Bendahmane, D.B. (2001). The Story of a Successful Public-Private Partnership in Central America: Handwashing for Diarrhoeal Disease Prevention. Published by the Basic Support for Child Survival Project (BASICS II), the Environmental Health Project, the United Nations Children's Fund, the United States Agency for International Development, and The World Bank, USA http://www.ehproject.org/PDF/Joint_Publications/JP001CentAmHandwash.PDF – Accessed March 2010.
Published external evaluations	None
What are impacts, outcomes and sustainability issues?	Saade et al. (2001) report that the PPP in Guatemala resulted in ten percent of mothers in Guatemala moving out of the 'inadequate' handwashing group into either the 'intermediate' or 'optimal' group. Increased soap sales and institutional change was reported by soap companies and their subsidiaries, although details are difficult to come by.
How much does it cost?	Insufficient data.
Human resource requirement?	Insufficient data.
How long does it take?	Insufficient data.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	World Bank (2008). Website pages on Sanitation, Hygiene and Wastewater Resource Guide, Hygiene Promotion Approaches – Accessed March 2010. Global Handwashing Day website (2008). http://www.globalhandwashingday.org/ Accessed March 2010. Global PPPHW website (undated). Health in Your Hands. http://www.globalhandwashing.org/ Accessed March 2010.
Toolkits or guidebooks	Scott, B., Curtis, V. and Cardosi, J. (2005). The Handwashing Handbook. A guide for developing a hygiene promotion programme. The World Bank, BNWP and WSP. http://www.globalhandwashing.org/Publications/Handwashing_Handbook.pdf (also available in Spanish, French and Swahili) – Accessed March 2010.

Sources of information, toolkits, guidebooks and further reading

Further reading

Curtis, V. and Smith, L. (2005). Hygiene promotion. WELL Factsheet. WELL (WEDC and LSHTM), UK. http://www.lboro.ac.uk/well/resources/fact-sheets/fact-sheets-htm/hp.htm – Accessed March 2010.

Thomas, A. and Curtis, V. (2003). Public-Private Partnerships for Health A Review of Best Practices in the Health Sector. World Bank/WSP, Washington DC, USA. http://www.globalhandwashing.org/Publications/Attachments/PPPreview.pdf – Accessed March 2010.

Curtis, V. (2002). Health in Your Hands: Lessons from Building Public Private Partnerships for handwashing with Soap. World Bank, WSP, BNWP, UNICEF, AED and LSHTM. http://www.wsp.org/UserFiles/file/330200713804_Washing_Hands_with_soap.pdf – Accessed March 2010.

World Bank (2000). Sanitation and Hygiene: Unleashing the Power of the Market, Proposal to forge Public Private Partnerships in selected developing countries. World Bank. http://www.globalhandwashing.org/Publications/hand_concept.pdf – Accessed March 2010.

Why a Global Day for Handwashing with Soap?

The guiding vision of Global Handwashing Day is to generate a local and global culture of handwashing with soap. Handwashing with soap is the most effective and inexpensive way to prevent diarrhoeal and acute respiratory infections, which take the lives of millions of children in developing countries every year. Together, they are responsible for the majority of all child deaths. Yet, despite its lifesaving potential, handwashing with soap is seldom practised and difficult to promote.

The challenge is to transform handwashing with soap from an abstract good idea into an automatic behaviour performed in homes, schools, and communities worldwide. Turning handwashing with soap at critical times, such as before eating and after using the toilet into an ingrained habit could save more lives than any single vaccine or medical intervention, cutting deaths from diarrhoea by almost half and deaths from acute respiratory infections by one-quarter. A vast change in handwashing behaviour is critical to meeting the Millennium Development Goal of reducing deaths among children under the age of five by two-thirds by 2015.

On 15 October, 2008, the first-ever Global Handwashing Day saw more than 120 million children around the world washing their hands with soap in more than 70 countries across five continents. From Colombia to Bangladesh, from Kenya to the Philippines, from the United Kingdom to Ethiopia, schools and communities worldwide organised and participated in celebrations and handwashing activities to remind the world that "Clean Hands Save Lives!"

Global Handwashing Day is an annual event held on 15 October.

Source: Extracted from Global Handwashing Day website (undated) http://www.globalhandwashingday.org Accessed March 2010.

Additional information for PPPHW was provided by Merri Weinger and Sandra Callier of HIP/USAID; Nat Paynter of WSP and Suzanne Reiff, Independent Consultant.

[H2.3] HOUSEHOLD WATER TREATMENT AND SAFE STORAGE (HWTS)

The promotion of household water treatment and safe storage (HWTS) is a cost-effective approach which aims to substantially decrease the global burden of diarrhoea and to contribute to the Millennium Development Goals (MDGs). The approach comprises marketing of appropriate, low-cost water treatment and safe water storage hardware in order to induce improved hygiene behaviour.

Summary table

Goal	Hygiene behaviour change.		
Target group	Children ☐	Individuals ☒	Household ☒
	Community ☐	Schools ☒	Society ☐
How applied to date?	Rural ☒	Urban ☒	Informal-urban ☒
	Pilot ☐	Expanding ☒	At scale ☐
	In one country ☐	In more than one country ☐	
	In more than one region ☒	Worldwide ☐	

Description

HWTS includes a wide array of water treatment and storage techniques that are applied primarily at the point-of-use, hence it is also known as Point-of-use water treatment (POU). Examples include boiling, filtration, chemical, solar and UV lamp disinfection, flocculation for the removal of turbidity, and other techniques. Safe storage refers to techniques that minimise the risk of recontamination, including the use of narrow-mouth, screened, and covered containers, as well as dispensing devices such as taps or spigots. Safe storage is a key component of household water management because improper storage can allow recontamination of stored water by microbial pathogens and other contaminants, nullifying the benefits of effective treatment.

WHO has established a network aimed at promoting HWTS. It aims to accelerate health gains to those without reliable access to safe drinking water. The network format optimises flexibility, participation and creativity to support coordinated action.

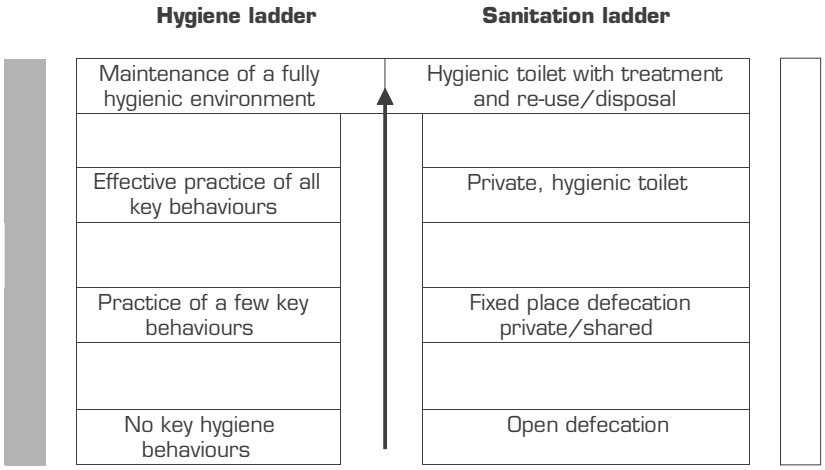
Significant HWTS initiatives are currently being carried out by two projects, namely Population Services International's (PSI) **Safe Water System** (SWS) and the more recently initiated **Safe Water Project**, being implemented by PATH. This proforma covers both projects.

PSI's SWS was developed by the U.S. Centers for Disease Control and Prevention (CDC) in 1996. The objective of the Safe Water System is to make water safe to drink at the household through chlorine-based household water treatment and safe storage at the point of use. This consists of three components:

- Household water treatment of contaminated water using chlorine-based disinfectants by individual households;
- Safe water storage in plastic containers with a narrow mouth, lid, and a spigot to prevent recontamination; and
- Behaviour change techniques and communications to promote household treatment of drinking water, including social marketing, community mobilisation and health education.

PATH's Safe Water Project focuses on enabling commercial enterprises to produce, distribute, sell, and maintain household water treatment and storage products to low-income populations. Therefore, it does not advocate one approach but endeavours to enable viable HWTS solutions to be found in each project location. The project started in 2006 and will finish in 2011; it is being funded by the Bill and Melinda Gates Foundation.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	1990s **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	Multiple experience gathered from private sector initiated interventions.
Funding from (name of donor agencies, if applicable)	PSI's SWS Project is funded by CIDA, CDC, DFID, The Global Fund To Fight AIDS, Tuberculosis and Malaria (Global Fund), KfW development bank, Netherlands Government Ministry of Foreign Affairs and USAID. PATH's Safe Water Project is funded by the Bill and Melinda Gates Foundation and USAID.
Countries used in to date	PSI's SWS Project: Angola, Botswana, Burundi, Cameroon, Côte d'Ivoire, Ethiopia, Guinea -Bissau, Guinea–Conakry, Kenya, Madagascar, Malawi, Mozambique, Nigeria, Rwanda, Tanzania, Uganda, Zambia. PATH's Safe Water Project: India, Cambodia and Vietnam.
Experience to date	Since 1998 PSI's SWS Project has carried out the first SWS trials and has since implemented safe water programmes in 20 developing countries. PATH's Safe Water Project's in-country activities were initiated in India in early 2006. The project expanded to Cambodia and Vietnam in mid-2007 where PATH is working with potential partners to stage and implement test markets, applying a variety of distribution models to HWTS products (Factsheet on PATH's Safe Water Project in Vietnam and Cambodia, 2008).

Perceived strengths and weaknesses

Strengths	PSI's SWS is a water quality intervention that employs proven, easy-to-use and inexpensive solutions appropriate for the developing world (PSI website, 2009). PATH's Safe Water Project is relatively new and its main strength is that it is working in collaboration and partnership with a range of organisations, namely commercial partners, research institutions, non-profit and non-governmental organisations and governments and policy-setting bodies (Factsheet on PATH, 2009) to identify, test, and adapt a family of appropriate safe HWTS products.
Weaknesses	For HWTS projects in general the low awareness or support among key government, multi-lateral, and nongovernmental partners regarding the power of household water treatment programmes to improve health, advocacy remains a major challenge (POUZN Project, 2007).

Evidence of effectiveness

Published internal evaluations	Safe Water Briefs (2008). Findings From Investigation of User Experience With Household Water Treatment and Storage Products in Andhra Pradesh, India. Part of the series Safe water briefs. PATH, Seattle, USA. http://www.path.org/files/TS_safe_water_user_exp_ap.pdf – Accessed March 2010. POUZN Project (2007). Best Practices in Social Marketing Safe Water Solution for Household Water Treatment: Lessons Learned from Population Services International Field Programs. The Social Marketing Plus for Diarrheal Disease Control: Point-of-Use Water Disinfection and Zinc Treatment (POUZN) Project, Abt Associates Inc., Bethesda, MD. WHO (2007). Combating waterborne disease at the household level. International Network to Promote Household Water Treatment and Safe Storage, World Health Organization, Geneva, Switzerland. http://www.who.int/household_water/advocacy/combating_disease/en/index.html – Accessed March 2010. CDC (2006). Preventing Diarrhea in Persons Living with HIV and AIDS: The Safe Water System Project. CDC, USA. http://www.cdc.gov/safewater/publications_pages/fact_sheets/SWS_HIV.pdf – Accessed March 2010. Nath, K.J., Bloomfield, S.F. and Jones, M. (2006). Household water storage, handling and point-of-use treatment. IFH, UK. http://www.ifh-homehygiene.org/IntegratedCRD.nsf/34e8d616912421cc802575070003a15c/aa885658ec1f19ee8025752200559653?OpenDocument – Accessed March 2010.
Published external evaluations	Schmidt, W. and Cairncross, S. (2009). Household water treatment in poor populations: is there enough evidence for scaling up now? Environmental science & technology; vol. 43, no. 4; p. 986–992. http://pubs.acs.org/doi/abs/10.1021/es802232w (free abstract) – Accessed March 2010.
What are impacts, outcomes and sustainability issues?	Nath et al. (2006) found that the provision of safe water alone at the household level can reduce diarrhoeal and other enteric diseases by 6 to 50%, even in the absence of improved sanitation or other hygiene measures. This is affirmed by the PSI Project (POUZN Project, 2009) which states that household-level POU water treatment has been shown to significantly reduce diarrhoeal diseases in vulnerable populations and should become an essential intervention within child survival, HIV/AIDS, and water supply programmes. Indeed an 18-month study in Uganda (CDC, 2006) showed that use of the SWS reduced the risk of diarrhoea by 25% and the total number of days ill from diarrhoea by 33% in persons living with HIV/AIDS. The PATH Project reports that sustained use requires ready access to supplies, spare parts, and repairs. Women often fail to correctly maintain water filters or stop treating their water altogether because fresh supplies, spare parts, and repairs are not readily available or are too expensive (Safe Water Briefs, 2008). However, Schmidt and Cairncross (2009) conclude that widespread promotion of HWT is premature given the available evidence. They recommend that further acceptability studies and large blinded trials or trials with an objective health outcome are needed before HWT can be recommended to policy makers and implementers.
How much does it cost?	Insufficient data.
Human resource requirement?	A range of technical expertise is required and recruiting and assembling the human resource expertise needed to develop and support a safe water programme is challenging (POUZN Project, 2009).
How long does it take?	Behaviour change for safe water use is a long process *(no time given)*, requiring sustained funding (POUZN Project, 2009).

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	Website of U.S. Centers for Disease Control and Prevention http://www.cdc.gov/safewater/index.htm – Accessed March 2010. Website of PSI, Child Survival, Safe Water and Hygiene Promotion; available at: http://www.psi.org/ Accessed March 2010. Website of USAID. Safe water partnerships, available at: http://www.usaid.gov/our_work/environment/water/safe_water_partnerships.html – Accessed March 2010. Website of HIP, USAID: Hygiene Improvement Resources, available at: http://www.hip.watsan.net/page/314 – Accessed March 2010. Website of PATH, Safe Water Project; available at: http://www.path.org/projects/safe_water.php – Accessed March 2010. Factsheet on PATH's Safe Water Project; available at: http://www.path.org/files/TS_safe_water_fs.pdf – Accessed March 2010. Website of the WHO, Household Water and Safe Storage; available at: International Network to Promote Household Water Treatment and Safe Storage – Accessed March 2010.
Toolkits or guidebooks	Quick, R. (200?). Safe Water Systems for the Developing World: A Handbook for Implementing Household-Based Water Treatment and Safe Storage Projects. CARE/CDC Health Initiative, Centers for Disease Control and Prevention, Atlanta, Georgia, USA. http://www.cdc.gov/safewater/manual/sws_manual.pdf – Accessed March 2010. Other toolkits, fact sheets and guidebooks produced by members of the HWTS Network are listed at: http://www.who.int/household_water/network/tools/en/index.html Accessed March 2010.
Further reading	IRC website, Nepal: Innovative communication to promote household water treatment; Available at http://www.irc.nl/page/46736 – Accessed March 2010. WHO (2009). Managing water in the home: accelerated health gains from improved water supply. World Health Organization, Geneva, Switzerland. http://www.who.int/water_sanitation_health/dwq/wsh0207/en/print.html – Accessed March 2010. WHO (2009). Scaling Up Household Water Treatment Among Low-Income Populations. World Health Organization, Geneva, Switzerland http://whqlibdoc.who.int/hq/2009/WHO_HSE_WSH_09.02_eng.pdf – Accessed March 2010. Heierli, U. (2008). Marketing Safe Water Systems: Why is it so hard to get safe water to the poor – and so profitable to sell it the rich? SDC, WSSCC, WSP. Berne, Switzerland. http://www.poverty.ch/safe-water.html – Accessed March 2010. Environmental Health and CDC/Safewater (2006). A Bibliography on Point-of-Use Water Disinfection. Compiled by Environmental Health at USAID and CDC/Safewater. Washington DC, USA. http://www.ehproject.org/PDF/ehkm/pou_bibliography2006final.pdf – Accessed March 2010. Massee Bateman, O., Jahan, R., Brahman, S., Zeitlyn, S. and Laston, L. (2002). Prevention of Diarrhea Through Improving Hygiene Behaviors The Sanitation and Family Education (SAFE) Pilot Project Experience. Joint Publication 4. CARE–ICDDR,B–EHP Joint Publication. Bangladesh. http://www.ehproject.org/PDF/Joint_Publications/JP004SAFEr.pdf – Accessed March 2010.

Part 2:

THE SOFTWARE

GROUP S
Creating Demand and Supply Chains: Sanitation Promotion

Throughout much of the 1980s, 1990s and early 2000s sanitation programmes in many countries have focused on the provision of toilets, usually through direct implementation by government, and commonly with a large subsidy element to pay for costs of construction. Public-good and equity arguments have been used to justify this approach. Regrettably however, many of these national programmes have had limited success, with a poor take up rate, evidence of poor targeting of subsidies and limited reach. Thus, although the case for public engagement in sanitation is compelling, new programmes have tended to work in alternative ways and seek to make better use of public funds.

Generally the 'new' generation of approaches can be divided into two groupings: firstly those that deal with community-wide sanitation and are based on 'participatory' approaches **(S1)**; and secondly those that use a social marketing approach to analyse and intervene in the supply and demand of goods and services **(S2)**. Neither group uses techniques which are wholly new and there are some strong areas of overlap between them. Both groups however represent a significant shift in thinking for many existing national programmes.

A total of four sanitation promotion approaches have been identified for inclusion in the document; two 'community-wide participatory approaches' are included in **Group S1** and two approaches that use social marketing are described in **Group S2**.

[S1] COMMUNITY-WIDE APPROACHES

Background

Community-wide approaches (often collectively referred to as 'total sanitation' approaches) aim to achieve universal use of toilets and the elimination of open defecation in the communities targeted. It is important to bear in mind that the term 'total sanitation' refers to a complete change in behaviour for the community as a whole, in contrast to previous approaches which focused on household behaviour change; it does not automatically refer to total *environmental* sanitation including drainage, solid waste and sullage disposal.

These community-wide approaches depict a desired situation in which all people in households of the community, social institutions such as schools, health centres and places of worship, and all public places such as bus-stands and market places make use of appropriate sanitation systems.

They differ from earlier sanitation approaches both in their focus on the community (rather than the household) and in their emphasis on collective decision making and local problem solving; this contrasts with previous more directive programmes. The focus on stopping open defecation ensures that every household owns or shares the use of a toilet and that these toilets are effectively used by all.

The approaches use a technique known as 'mass social mobilisation' which engages leaders from all levels (and sectors) of society to focus attention on and prioritise solving of a shared social problem – in this case open defecation – using multiple communication channels and social engagement.

Thus the community-wide approaches described here rely on the creation of demand for the elimination of open defecation and are not top down approaches where toilets are chosen and built for communities by an external project.

CLTS and its variants

The two approaches described here are the original or pioneering Community-Led Total Sanitation (CLTS) and School-Led Total Sanitation (SLTS). Other community-wide approaches exist in many countries which differ from CLTS to a greater or lesser extent but due to a lack of verified data and limited availability of literature that describes them not all the variants could be included in the document.

Significant CLTS variants include:

- Community-Led Basic Sanitation (CLBSA) – used by Nepal Water for Health (NEWAH) in Nepal
- Sustainable Community-Owned Total Sanitation (SCOTS) – used by Plan India
- Total Sanitation Campaign (TSC) – Government of India **(see section 3.1.1)**
- Southern Nations Nationalities and People's Region project (SNNPR) – Ethiopia **(see section 3.2.1)**
- Learning by Doing: At Scale Hygiene and Sanitation Improvement, Amhara – Ethiopia **(see section 3.2.2)**
- The Decentralised Integrated Sanitation, Hygiene and Reform Initiative (DISHARI) – Bangladesh **(see section 3.3.2)**
- Community Approaches to Total Sanitation (CATS) – UNICEF

FOR INFORMATION ON THESE CLTS VARIANTS REFER TO THE FOLLOWING:

For NEWAH's CLBSA see their webpage available at: http://www.newah.org.np/detailUpdates.php?ID=25 Accessed March 2010.

For SCOTS see Kalimuthu, A. (2008). Sustainable Community Owned Total Sanitation. Chapter 13 of Beyond Construction, Use by All. WaterAid, UK and IRC, Netherlands. http://www.wateraid.org/documents/ch13_sustainable_community_owned_total_sanitation.pdf Accessed March 2010.

For India's TSC, DISHARI, SNNPR and Learning by Doing **see PART 3** of this document.

For UNICEF's CATS, see Galbraith, C. and Thomas, A. (2009). Community Approaches to Total Sanitation. Based on case studies from India, Nepal, Sierra Leone, Zambia. Field Note of UNICEF's Division of Policy and Practice. New York, USA. http://www.communityledtotalsanitation.org/resource/unicef-community-approaches-sanitation-cats Accessed March 2010.

[S1.1] COMMUNITY-LED TOTAL SANITATION (CLTS)

CLTS aims to stop all open defecation (OD) within a community, recognising that individual hygiene behaviour can affect the health of other community members. The approach encourages innovation and commitment within the community, motivating them to build their own sanitation infrastructure without depending on hardware subsidies from external agencies.

Summary table

Goal	Hygiene behaviour change.		
Target group	Children ☐	Individuals ☐	Household ☒
	Community ☒	Schools ☐	Society ☐
How applied to date?	Rural ☒	Urban ☐	Informal-urban ☐
	Pilot ☐	Expanding ☐	At scale ☒
	In one country ☐	In more than one country ☐	
	In more than one region ☐	Worldwide ☒	

Description

CLTS uses participatory rural appraisal (PRA) techniques **(see Group P: Participatory Planning Tools, P1)** to raise awareness of the risk that open defecation presents and to reinforce a natural sense of 'disgust' about this practice. The community members analyse their own sanitation profile including the extent of open defecation and the spread of faecal-oral contamination that detrimentally affects everyone. A variety of tools are used including:

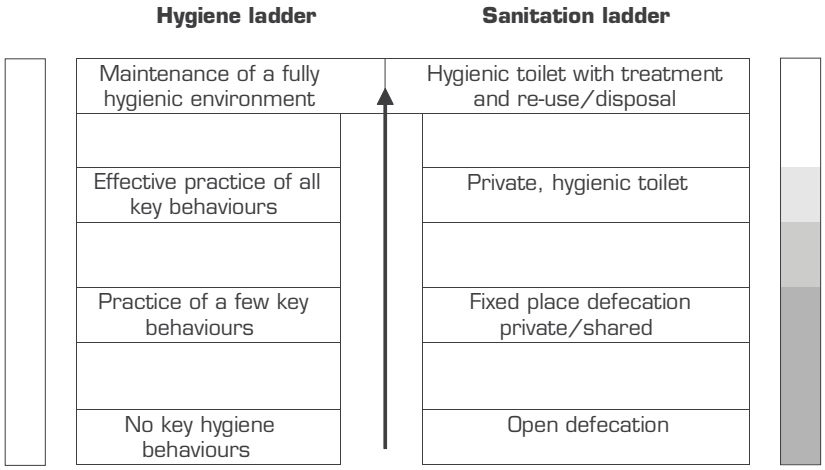
- Focus group discussions;
- Transect walks;
- Mapping of open defecation sites; and
- 'shit' calculations (that calculate the total weight of faeces produced and circulating in the community).

Throughout, the crude local equivalent word for 'shit' is always used. The approach aims to generate a sense of 'disgust' and 'shame' amongst the community. They collectively realise the terrible impact that open defecation is having, leading to a moment of 'ignition' when the community initiates collective local action to improve sanitation within their community.

Awareness and momentum from the triggering translate into action plans for making the community open defecation free (ODF). Importantly, facilitators will steer towards this ignition, but never lead or enforce a decision to take any action as this has to come from the householders themselves. The householders assess the water and sanitation situation in their community as well as the location of open defecation sites. Through further participatory exercises, discussions and awareness raising activities a community plan is developed to stop open defecation, and promote more hygienic individual behaviour, eventually leading to the construction of latrines.

Village entrepreneurs are encouraged to supply latrine components. The approach stresses promotion of a number of local options based on affordability and durability. Importantly, a hardware subsidy is not usually provided to the households for the construction of the latrines, although community-wide incentives or rewards are frequently offered by higher levels of government. Communities may also opt to take loans for construction of toilets or to establish cross-subsidies within the community.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	1999 **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	Kamal Kar (independent development consultant) with the Village Education Resource Centre (VERC) and WaterAid. Bangladesh
Funding from (name of donor agencies, if applicable)	WaterAid, World Bank (WSP) and now expanding to many donor programmes i.e. UNICEF, DFID and PLAN.
Countries used in to date	Asia: Afghanistan, Bangladesh, Cambodia, China, India, Indonesia, Nepal, Pakistan, Timor Leste. Africa: Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mali, Mozambique, Nigeria, Sierra Leone, Tanzania, Uganda, Zambia, Zimbabwe. Latin America: Bolivia. Middle East: Yemen.
Experience to date	Evidence is emerging to suggest that CLTS is an effective approach to improving hygiene and sanitation behaviours where the baseline behaviour is open defecation. It can also be used to upgrade unhygienic latrines; for instance where there is fixed point open defecation into latrines that do not have a cover or in densely populated urban areas where toilets flush to the open. The use of CLTS principles in areas where sanitation coverage is high but usage is low has encouraged programmers to examine and address the reasons why some people remain without sanitation.

Perceived strengths and weaknesses

Strengths	The method does not rely on sanitation subsidies or service delivery from external agencies thus removing some of the previously-noted constraints and harnessing the nascent household- small private sector capacity to solve sanitation problems locally. The approach encourages people to change their hygiene behaviours without prescribing how they should do it. This empowers the householders and enables them to get onto the sanitation ladder at the level that they can afford. There is evidence from projects to suggest that subsequently households do take the opportunity to upgrade or move up the ladder as and when their finances allow. It also empowers natural community leaders and facilitators who then move on to other communities to spread the effect or use the momentum of collective action and social cohesion to address other livelihoods issues in the community.

Perceived strengths and weaknesses

Weaknesses	Similar to other participatory approaches, CLTS relies on the quality of the facilitators. However, because it is a relatively simple, easy-to-learn concept and easy-to-implement approach it is much less prone to facilitator error when compared with other participatory approaches. Where problems occur the evidence suggests that they have tended to arise when facilitators have little motivation or interest. The selection process, their training and their motivation level are critical factors for success. CLTS is also best received where there has been no previous hygiene or sanitation promotion intervention. Where previous interventions have offered subsidies or prescribed certain standards the community tends to have reservations and be sceptical about CLTS and wait for handouts. However, even though it is more difficult, successful CLTS is not impossible in these communities.

Evidence of effectiveness

Published internal evaluations	Bibby, S. and Knapp, A. (2007). From Burden to Communal Responsibility – A Sanitation Success Story from Southern Region in Ethiopia. WSP Africa Field Note. http://www.wsp.org/UserFiles/file/2122007111721_From_Burden_to_Communal_Responsibility-Ethiopa.pdf – Accessed March 2010.
Published external evaluations	Evans, B., Colin, J., Jones, H. and Robinson, A. (2009). Sustainability and Equity Aspects of Total Sanitation Programs – A study of recent WaterAid-supported programmes in three countries; Global Synthesis Report. WaterAid, London, UK. Robinson, A. (2005). Scaling Up Rural Sanitation in South Asia – Lessons Learned from Bangladesh, India and Pakistan. WSP South Asia. http://www.wsp.org/UserFiles/file/36200745838_348730SAOSANITATION120STUDY1PRESS.pdf – Accessed March 2010.
What are impacts, outcomes and sustainability issues?	Where it has been implemented CLTS has resulted in a very large uptake in latrine construction and latrine use. However, since it is a relatively new approach there is still little evidence to confirm that it results in sustained usage over the long term; similarly the impacts on health remain largely unknown.
How much does it cost?	Evans et al. (2009) report that cost effectiveness of WaterAid investments in their three country study varies from US$7 to US$84 per household, not including household contributions.
Human resource requirement?	Requires trained facilitators who are enthusiastic, willing and able to spend a long time in the field and who are well supported by their organisations. Facilitators can also come from the communities themselves.
How long does it take?	The time needed from initialisation of the process to actually achieving ODF status is very variable. In Bangladesh some communities reportedly took less than one month. An interval of between three to nine months seems to be typical (Evans et al., 2009).

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	Community-led Total Sanitation website. Homepage available at: http://www.communityledtotalsanitation.org/page/clts-approach – Accessed March 2010.
Toolkits or guidebooks	Kar, K. and Chambers R. (2008). Handbook on Community-Led Total Sanitation. Plan and Institute of Development Studies, University of Sussex., UK. http://www.communityledtotalsanitation.org/resource/handbook-community-led-total-sanitation (also available in French, Spanish, Hindi and Bengali) – Accessed March 2010. Kar, K. (2005). Practical Guide to Triggering Community-led Total Sanitation. Institute of Development Studies, University of Sussex, UK. http://www.communityledtotalsanitation.org/resource/practical-guide-triggering-community-led-total-sanitation (Also available in Chinese, Arabic, Spanish, French and Lao) – Accessed March 2010.

Sources of information, toolkits, guidebooks and further reading

Further reading

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Shayamal, S., Kashem, M.A., Rafi, S.M. and Ryan, P. (ed.) (2008). Moving up the sanitation ladder: A participatory study of the drivers of sustainability and progress in Community-Led Total Sanitation. Chapter 20 of Beyond Construction, Use by All. WaterAid, UK and IRC, Netherlands. http://www.irc.nl/page/40591 – Accessed March 2010.

Burton, S. (2007). Community-Led Total Sanitation (CLTS) An Evaluation of the WaterAid's CLTS Programme in Nigeria. WaterAid, Nigeria.

Sanan, D. and Moulik, S.G. (2007). Community-Led Total Sanitation in Rural Areas An Approach that Works. WSP –SA, New Delhi, India. http://esa.un.org/iys/docs/san_lib_docs/WSP-Community%20Led.pdf – Accessed March 2010.

Heierli, U. and Frias, J. (2007). One fly is deadlier than a hundred tigers: total sanitation as a business and community action in Bangladesh and elsewhere. SDC, WSSCC, WSP. Berne, Switzerland. http://www.poverty.ch/sanitation.html – Accessed March 2010.

WaterAid (2006). Community-Led Total Sanitation in Nepal – Getting us back on track. WaterAid, Nepal. http://www.communityledtotalsanitation.org/resource/community-led-total-sanitation-nepal-getting-us-back-track – Accessed March 2010.

Kar, K. and Pasteur, K. (2005) Subsidy or self-respect? Community-Led total sanitation. An update on recent developments. IDS Working Paper 257. Institute of Development Studies, University of Sussex, UK. http://www.communityledtotalsanitation.org/resource/subsidy-or-self-respect-community-led-total-sanitation-update-recent-developments – Accessed March 2010.

Additional information for CLTS was provided by Robert Chambers and Petra Bongartz of IDS, UK and Andy Robinson, Independent Consultant.

[S1.2] SCHOOL-LED TOTAL SANITATION (SLTS)

SLTS builds upon CLTS and uses similar participatory exercises but it approaches the problem from a different perspective. The fundamental difference is that awareness of a sanitation problem is raised first with the school children of the community, not the adults, recognising that children are ready recipients for new learning and can affect change in their community.

Summary table

Goal	Create demand for sanitation.		
Target group	Children ☒	Individuals ☐	Household ☐
	Community ☒	Schools ☒	Society ☐
How applied to date?	Rural ☒	Urban ☐	Informal-urban ☐
	Pilot ☒	Expanding ☐	At scale ☐
	In one country ☐	In more than one country ☒	
	In more than one region ☐	Worldwide ☐	

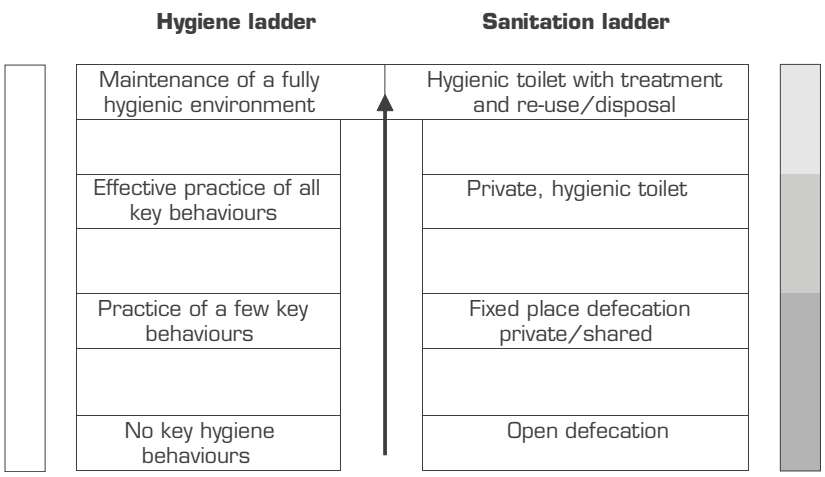
Description

The approach is built upon the use of activity-oriented, participatory exercises to raise awareness of sanitation issues amongst school-age children. The catchment area of the school, rather than a single community, defines the target area. Hygiene education and CLTS type sanitation promotion tools are used to encourage the school children to adopt the new practices and change their hygiene and sanitation behaviours. As the process unfolds the school environment becomes cleaner, the children pass on the messages to their parents; the adults then see the improvements at the school and instigate changes at home. Therefore, the children become agents of change as their school leads the way in promotion of sanitation improvements within their community.

With appropriate training from the implementing NGO the 'regular' teachers can be used as the facilitators – the NGO provides ongoing support to the school management as and when it is required.

This approach builds upon the achievements of UNICEF's WASH in Schools initiative and integrates the reward and revolving fund aspects of the Basic Sanitation Package implemented by the Government of Nepal. However, it is differentiated by its connections with the CLTS approach and its use of participatory tools and techniques.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	2005 **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	UNICEF with Nepal Red Cross and Government of Nepal. Nepal
Funding from (name of donor agencies, if applicable)	UNICEF with Nepal Red Cross and Government of Nepal.
Countries used in to date	Nepal and Pakistan.
Experience to date	As of June 2009 in Nepal, SLTS had reached approximately 90,000 households and 500,000 people in 15 districts through 300 schools and surrounding communities. (Galbraith and Thomas, 2009). However, it is still at the pilot stage and as yet there has been little evaluation of its efficacy.

Perceived strengths and weaknesses

Strengths	Its strengths are very similar to those of the CLTS and WASH for Schools approaches. For instance, it promotes a sense of community and endeavours to include all households including the most disadvantaged; and because children are the agents of change within the community, it endeavours to ensure that the change in behaviour is permanent in the long term.
Weaknesses	The success of the approach is heavily dependent upon the teachers' effectiveness, which in turn is closely linked to the training they receive and their own level of motivation. The teachers must engage with the process and be motivated to take a leading role. School teachers who feel burdened by the extra workload and are not willing to facilitate the approach will not be effective.

Evidence of effectiveness

Published internal evaluations	None
Published external evaluations	None
What are impacts, outcomes and sustainability issues?	By June 2009, over 1,000 settlements from 250 school catchment areas in 10 districts of Nepal had been declared ODF and a decrease in diarrhoea and communicable diseases had been reported in these communities (Galbraith and Thomas, 2009). SLTS has been incorporated in the Nepal Sanitation Master Plan, developed in 2009 and the Government of Nepal is replicating the SLTS programme in all 75 districts (Galbraith and Thomas, 2009).
How much does it cost?	Not clearly defined but considered to be higher than the CLTS approach due to the high cost of training of teachers to act as facilitators and the need for a revolving fund and/or subsidy to pay for infrastructure in the school.
Human resource requirement?	Requires training of teachers as facilitators, it is likely that the teachers may be inexperienced in development and sanitation issues and will require more training than their equivalent CLTS field workers.
How long does it take?	Estimated to be at least two or three years.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	Galbraith, A and Thomas, C. (2009). Community Approaches to Total Sanitation. Based on case studies from India, Nepal, Sierra Leone, Zambia. Field Note of UNICEF's Division of Policy and Practice. New York, USA. Adhikari, S. and Shrestha, N.L. (2008). School Led Total Sanitation: successful model to promote school and community sanitation and hygiene in Nepal. Chapter 9 of Beyond Construction, Use by All. WaterAid, UK and IRC, Netherlands http://www.irc.nl/page/40578 – Accessed March 2010.
Toolkits or guidebooks	DWSS and UNICEF (2006). Guidelines on School Led Total Sanitation. Steering Committee for National Sanitation Action. Department of Water Supply and Sewerage and UNICEF Nepal. http://www.unicef.org/wash/index_schools.html – Accessed March 2010.
Further reading	Khan, F., Syed, R. T., Riaz, M. and Casella, D. (2008). School led sanitation promotion: Helping achieve total sanitation outcomes in Azad Jammu and Kashmir. Chapter 14 of Beyond Construction, Use by All. WaterAid, UK and IRC, Netherlands. http://www.irc.nl/page/40584 – Accessed 2010. Pretus, L. and Jones, O. (2008). Money down the pan? Community level models for financing sanitation in rural Nepal. Chapter 18 of Beyond Construction, Use by All. WaterAid, UK and IRC, Netherlands. http://www.wateraid.org/documents/plugin_documents/money_down_the_pan_community_level_models_for_financing_sanitation_in_rural_nepal.pd – Accessed March 2010. Nahar, Q. and Ahmed, R. (2006). Addressing special needs of girls Challenges in school. UNICEF and WaterAid, Bangladesh. http://www.wateraid.org/documents/plugin_documents/addressing_the_special_needs_of_girls.pdf – Accessed March 2010. WaterAid (2006). Community-Led Total Sanitation in Nepal – Getting us back on track. WaterAid, Nepal. http://www.communityledtotalsanitation.org/resource/community-led-total-sanitation-nepal-getting-us-back-track – Accessed March 2010.

Additional information for School-Led Total Sanitation was provided by Umesh Pandey, Nepal Water for Health (NEWAH).

[S2] MARKETING OF SANITATION GOODS AND SERVICES

Marketing of a good or service works on the principle of a voluntary "exchange" between consumer and producer where both parties gain. Where the good or service will result in improved health Weinreich (1999) uses the phrase 'social marketing'; this is defined as 'the use of commercial marketing techniques to promote the adoption of behaviour that will improve the health or well-being of the target audience or of society as a whole'. This phrase is now widely used in the sanitation sector although some prefer 'sanitation marketing' for approaches that deal with promotion of goods and services that are specifically to do with the construction and use of sanitation facilities and 'social marketing' for any approach that deals with promotion of a change in behaviour (e.g. handwashing, as discussed in Group H2: Marketing of a Single Intervention.

A number of approaches use marketing techniques to promote sanitation. On the demand side these approaches generally consider the target population as potential consumers of goods and services and take time to understand what motivates them. On the supply side they borrow private sector experience to develop, place and promote an appropriate product: in this case the product is a toilet and excreta disposal system, be it sewerage connection, pit latrine or other mechanism. Critically the facilities must be readily available at an affordable price in the right place. Notably marketing may rely on other sanitation approaches (for example CLTS) to stimulate initial demand.

Sanitation may be marketed and promoted through various channels including advertising and demonstrations which aim to make potential consumers aware, informed and interested in purchasing the toilet. This approach is often summarised by the four Ps of marketing: Product, Price, Place and Promotion.

Cairncross (2004) describes how sanitation (or social) marketing adapts the four Ps in the following ways:

Product: this may be a tangible item like a latrine but it may also be a service, for instance pit emptying or a practice, handwashing for example. Commercial marketers only want to sell a product, where as social marketers want customers to use it correctly or behave differently.

Price: commercial prices must cover all the costs where as social marketers might choose to subsidise certain items in order to reach a vulnerable group, who may have social and other costs to overcome.

Place: the service needs to be available to the target group. Public channels such as government outreach workers and NGO volunteers, as well as private shops and trades people, can bring the market close to the customers. This means the supply chain can reach every household.

Promotion: Creating demand for a totally new product is more demanding than the commercial practice of winning market share from competitors. This is done via promotion based upon an understanding of the motivations of the target audience and knowledge of their primary and trusted channels of communication.

Scott (2005) suggests that in the case of sanitation marketing programmes a fifth P may be applied – ***policy***. Policy can be used to make the unhealthy behaviour harder, for example through the banning of smoking in public places, or by making the desired behaviour easier, by enforcing the provision of handwashing facilities in schools for example. An enabling policy environment can also be vital for sustaining behaviour change in the longer term

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	Cairncross, S. (2004). The Case for Marketing Sanitation. WSP Field Note. WSP, Nairobi, Kenya. http://siteresources.worldbank.org/INTWSS/Resources/case_marketing_sanitation.pdf – Accessed March 2010.
Toolkits or guidebooks	Weinreich, N.K. (1999). Hands-on Social Marketing: A Step-by-Step Guide. Sage Publications.
Further reading	Heierli, U. and Frias, J. (2007). One fly is deadlier than a hundred tigers: total sanitation as a business and community action in Bangladesh and elsewhere. SDC, WSSCC, WSP. Berne, Switzerland. Scott, B (2005). Social Marketing: A Consumer-based approach to promoting safe hygiene behaviours. WELL Factsheet. WEDC and LSHTM, UK. http://www.lboro.ac.uk/well/resources/fact-sheets/fact-sheets-htm/Social%20marketing.htm Accessed March 2010. UN Habitat (2006). Social Marketing of Sanitation. UN-Habitat Water and Sanitation Trust Fund, Kenya and Sulabh International, India. Obika, A. (2005). The process for sanitation marketing. WELL Factsheet. WEDC and LSHTM, UK. http://www.lboro.ac.uk/well/resources/fact-sheets/fact-sheets-htm/Sanitation%20marketing.htm – Accessed March 2010. Olembo L. et al. (2004) Safe Water Systems: An Evaluation of the Zambia CLORIN Program: Narrative Safe Water System Evaluation Final Report. Jenkins, M. (2004). Who buys Latrines, Where and Why? WSP Field Note. WSP, Nairobi, Kenya. http://esa.un.org/iys/docs/san_lib_docs/Who%20Buys%20Latrines.pdf – Accessed March 2010. Colin, J. (2002). The National Sanitation Programme in Mozambique: Pioneering Peri-Urban Sanitation. Blue Gold Series Field Note 9. WSP Africa, Nairobi, Kenya. http://www.wsp.org/UserFiles/file/af_bg_moz.pdf – Accessed March 2010. Robinson, A. (2002). VIP Latrines in Zimbabwe: From Local Innovation to Global Sanitation Solution. Blue Gold Series Field Note 4. WSP Africa, Nairobi, Kenya. http://www.wsp.org/UserFiles/file/af_bg_zim.pdf – Accessed March 2010. Schellenberg J. et al. (2001). Effect of a large-scale Social Marketing of Insecticide-treated nets on Child Survival in rural Tanzania. In The Lancet v.357: 1241-47 Cave, B. and Curtis, V. (1999). Effectiveness of promotional techniques in environmental health. WELL Study No.165. London School of Hygiene & Tropical Medicine for DFID http://www.lut.ac.uk/well/resources/well-studies/full-reports-pdf/task0165.pdf Accessed March 2010. Andreasen, A. (1995) Marketing Social Change: Changing Behaviour to Promote health, Social Development, and the Environment Sulabh website. Homepage of Sulabh International Social Service Organisation. http://www.sulabhinternational.org/ Accessed March 2010.

[S2.1] SUPPORT TO SMALL SCALE INDEPENDENT PROVIDERS (SSIP)

Small Scale Independent Providers deliver sanitation goods and services (including constructing latrines, emptying pits, treating and disposing of wastes and providing support services). They are typically self-employed entrepreneurs who provide sanitation (and/or water supply) services to an individual household or group of households. They are most commonly associated with urban or informal-urban locations but can also play a key role in rural situations.

Summary table

Goal	Create supply chains of appropriate goods and services.		
Target group	Children ☐	Individuals ☒	Household ☐
	Community ☐	Schools ☐	Society ☒
How applied to date?	Rural ☒	Urban ☒	Informal-urban ☒
	Pilot ☐	Expanding ☒	At scale ☐
	In one country ☐	In more than one country ☒	
	In more than one region ☐	Worldwide ☐	

Description

SSIPs construct latrines, provide technical advice to home owners, empty latrine pits and septic tanks, transport septage and operate small scale treatment plants and build and run public toilets. They employ both simple technologies, such as emptying pits manually and more sophisticated equipment such as suction trucks for emptying septic tanks.

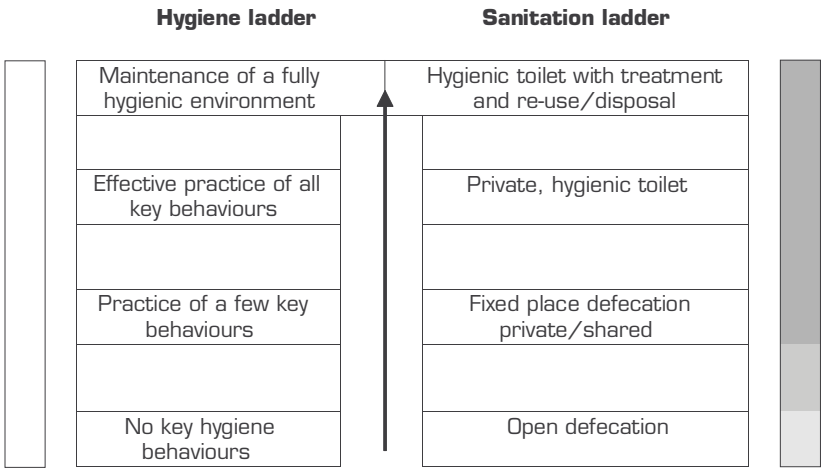
SSIPs face significant constraints in offering latrine construction and emptying services in poor, unplanned urban settlements. As a result many SSIPs who manage to stay in business are unable to enhance or expand their services beyond providing a limited operation. Such constraints include competition from other providers and limited options for the disposal of sewage sludge. Pit emptying often creates hazards to both themselves and the environment. Lack of clarity on their legal status also hampers their operations and limits their interest in investing in expansion of the business.

Typical support to small scale service providers would address the following issues:

- Formalising service provision in order to reduce costs to poor households who are unable or unwilling to invest in network services and so pay more per unit of service than wealthier households who have access to municipal services. The cost of accessing services from an SSIP is typically much higher than that supplied by a municipal network, even in competitive markets; for instance, the cost of having a full latrine pit dug out by a private pit emptier (say, once every two years) is much higher than the total cost of accessing a municipal sewer network over two years.
- Improving regulation of private providers that are not formally registered enterprises. Many researchers warn, however, that efforts to organise or regulate these providers may result in their going out of business, thus eliminating the most reliable source of services available to the poor.
- Providing training and support for private providers' marketing activities in order to generate an increase in demand for their services.
- Providing business-scale micro finance support services to private providers working in rural areas in order to help them overcome difficulties in an operating environment characterised by high risks and low returns. Constraints include the dispersed customer base, low level of demand, the presence of publicly-subsidised and externally provided latrine construction programmes and the lack of clarity on their legal operating status.

While a few sanitation programmes seek to address these issues there is very little documented evidence of experiences to date.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	Mid-1990s **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	The Water Utilities Partnership (WUP) has played a key role in highlighting the importance of SSIPs in urban and informal-urban Africa.
Funding from (name of donor agencies, if applicable)	WSP and The World Bank. WaterAid, IDE, SDC.
Countries used in to date	Benin, Burkina Faso, Ghana, Kenya, Mozambique, Senegal, Tanzania, South Africa, Uganda (with local government or central government supporting construction of improved dumping sites for cesspool emptiers), Nigeria (with an efficient policy to support SSIP investing and managing public toilets) and Vietnam. Extensively used in Latin America.
Experience to date	Some examples of interventions include Community Based Sanitation Services in Nairobi, Kenya; Public Toilet Operators in Kampala, Uganda; Latrine Diggers and Emptiers in Mombasa, Kenya and Dar es Salaam, Tanzania; Cesspool Emptying Services in Dar es Salaam, Tanzania; and Public-Private Conveniences in Kano, Nigeria. These are described on the 'Practitioner's Companion: Water and Sanitation for All' website of the Water Utility Partnership.

Perceived strengths and weaknesses

Strengths	The main advantages of SSIPs are their ability to respond quickly to changes in demand, to offer services needed by low-income families, to self-finance, and to recover all costs (Collignon and Vezina, 2000). Small-scale providers often play a key role in low-income neighbourhoods, where municipal networks do not reach, as well as in smaller towns, where municipalities have gradually withdrawn from the management of water supply and sanitation services. Delivery of external support through SSIPs serves to build up local capacity rather than crowding it out and encourages a more sustainable business-oriented approach to the provision of sanitation goods and services in the future. It can be a useful strategy where latrine use is widespread and where households are motivated to upgrade existing facilities and improve the level of service.

Perceived strengths and weaknesses

Weaknesses	Efforts to support SSIPs are challenging as they tend to distort the market factors that give SSIPs their comparative advantage in the first place. Thus excessive regulation can drive up prices, and direct subsidies can distort competition. As they are not contracted by a public entity (local government or any sanitation agency), SSIPs tends to satisfy only the direct demand from the customer. Sometimes, this individual customer demand conflicts with the more general community interest. For example, the informal private operators collect solid or liquid waste from the customers satisfactorily but fail to dispose of it properly and dump it in public places – commonly in lakes, in rivers and by the side of the road. This unhygienic behaviour pollutes water supplies, causes environmental damage and contributes to ill-health within the local population.

Evidence of effectiveness

Published internal evaluations	Salter, D. (2008). Identifying Constraints to Increasing Sanitation Coverage Sanitation Demand and Supply in Cambodia. Field Note. WSP-EAP, Phnom Penh, Cambodia. http://www.wsp.org/UserFiles/file/Sanitation_demand_and_supply_fieldnote_final__1.pdf Accessed March 2010. Frias, J. and Mukherjee, N. (2007). Harnessing Market Power for Rural Sanitation: Private Sector Sanitation Delivery in Vietnam. WSP-EAP, Jakarta, Indonesia. http://www.wsp.org/UserFiles/file/eap_harnessing.pdf – Accessed March 2010.
Published external evaluations	None
What are impacts, outcomes and sustainability issues?	Frias and Mukherjee (2007) report that the International Development Enterprises (IDE) project in Vietnam has resulted in a rapid increase in latrine uptake with 7,715 new latrines being built in 14 months. These were constructed entirely from household investments and of these, 6,251 were built during 2004, representing more than a fourfold increase over what was the annual average until 2003. In an investigation of how suppliers in Cambodia are meeting demand for latrines, Salter (2008) found that the "supply side needs to be strengthened to provide for the cheapest and mid-range end of the market". The components of cheaper designs are available but the options are not 'packaged' in a way that is obvious or easily accessible to consumers; pricing information is not clear and neither is how consumers can start with a lower cost initial investment and upgrade in the future.
How much does it cost?	Insufficient data.
Human resource requirement?	Insufficient data.
How long does it take?	This is not defined but the interventions reported by Frias and Mukherjee (2007) were achieved in 14 months.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	Scott, R (2005). SSIPs: a role in sustaining sanitation services to the urban poor. WELL Briefing Note No.31. WEDC and LSHTM, UK. http://www.lboro.ac.uk/well/resources/Publications/ Briefing%20Notes/BN32%20SSIPs.htm – Accessed March 2010. Collignon, B. and Vezina, M. (2000). Independent Water and Sanitation Providers in African Cities Full Report of a Ten-Country Study HYDROCONSEIL, IRC and WSP. http://www.wsp.org/UserFiles/file/af_providers.pdf – Accessed March 2010. Snell, S. (1998). Water and Sanitation Services for the Urban Poor, Small-Scale Providers: Typology & Profiles http://www.wsp.org/UserFiles/file/global_typology.pdf Accessed March 2010. Mehta, M., Virjee, K., Evans, B. and Wathobio, K. (2004). Business Development Services for Community-managed Small Water Enterprises. From Post-Construction Support to Business Development Services in Kenya http://www.wsp.org/UserFiles/file/625200773125_BusinessDevelopmentServicesForCommunityManagedSmallWaterEnterprisesAF.pdf Accessed March 2010. Eales, K. (2005). Bringing pit emptying out of the darkness: A comparison of approaches in Durban, South Africa, and Kibera, Kenya, Building Partnerships for Development, London, UK http://www.bpd-waterandsanitation.org/bpd/web/d/doc_131.pdf?statsHandlerDone=1 – Accessed March 2010.
Toolkits or guidebooks	Practitioner's Companion: Water and Sanitation for All: http://web.mit.edu/urbanupgrading/waterandsanitation/home.html – Accessed March 2010.
Further reading	IDE (2009). IDE Sanitation marketing pilot project, Cambodia. YouTube video available at:http://www.youtube.com/watch?v=zloOePIhQzc&feature=player_embedded Accessed March 2010. Solo, M.T. (2003). Independent Water Entrepreneurs in Latin America -The other private sector in water services. World Bank http://www.wsp.org/UserFiles/file/35200755432_Tova_ingles.pdf – Accessed March 2010. Mehta, M. and Virjee, K. (2003). Financing Small Water Supply and Sanitation Service Providers. WSP, World Bank. http://www.wsp.org/UserFiles/file/329200795910_afFinancingSmallWaterSupplySanitationProvidersMicrofinanceSSA.pdf – Accessed March 2010.

Additional information for SSIPs was provided by Bernard Collignon of Hydroconseil, France.

[S2.2] SANIMARTS

A SaniMart is a small shop located in an accessible bazaar or market where all materials required for constructing and maintaining a latrine can be purchased at affordable prices; the SaniMarts showcase the health benefits of sanitation and hygiene.

Summary table

Goal	Create supply chains of appropriate goods and services.				
Target group	Children	☐	Individuals	☒	Household ☒
	Community	☐	Schools	☐	Society ☒
How applied to date?	Rural	☒	Urban	☒	Informal-urban ☒
	Pilot	☐	Expanding	☒	At scale ☐
	In one country	☐	In more than one country	☐	
	In more than one region	☒	Worldwide	☐	

Description

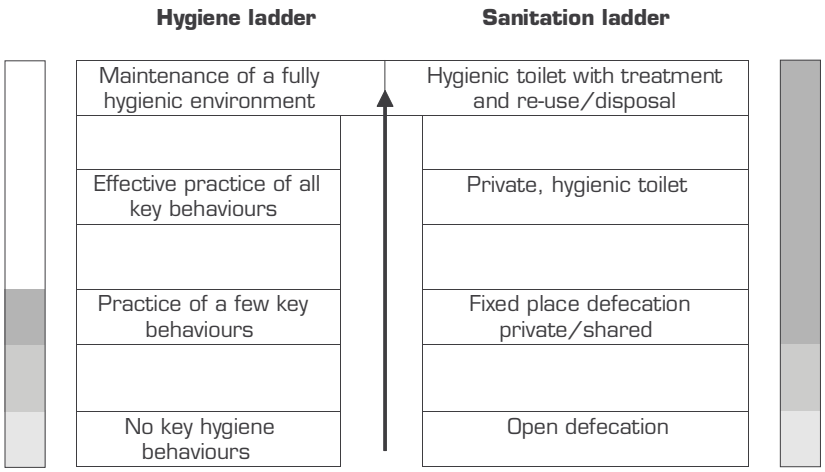
SaniMarts are shops pro-actively established where there is a perceived gap in the market for provision of sanitation goods and services. The SaniMart receives an initial input of stock, including products priced at a level that people can afford. The objective is that the mix of products on sale and the price will enable the owner to make a living. Each shop is staffed by a trained sanitation promoter who gives advice to customers about constructing, maintaining and using a latrine. A small group of masons trained in latrine construction are also available at the shop who for an agreed rate can help build the latrine or simply offer advice.

The key activities in setting up a SaniMart programme include:

- Training of shop managers and sanitation promoters in sanitation and marketing.
- Selection and training of masons (including women, through women's production centres, and young people, through youth employment schemes).
- Mobilisation – village contact drives, pamphlets, posters and films.
- Home visits by sanitation promoters. Both the promoter and family receive a small incentive for each toilet equipped from the mart.

It is important to realise that in many circumstances worldwide these activities happen spontaneously without the need for support from a government department, an agency or an NGO. The fundamental difference is that in locations where this has not happened and there is a gap in the market the approach can stimulate demand and provide support to create supply chains of appropriate goods and services.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	1993 **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	UNICEF and the Ramakrishna Mission Lokshiksha Parishad (RKMLP). India, first piloted in East Midnapore District.
Funding from (name of donor agencies, if applicable)	UNICEF and the Ramakrishna Mission Lokshiksha Parishad (RKMLP).
Countries used in to date	Bangladesh, India, Nepal, Pakistan, Mozambique and Nigeria.
Experience to date	SaniMarts have been used successfully in urban, informal-urban and rural areas, where they are also known as Rural Sanitary Marts (RSMs). The Improved Latrines Program (Programa de Latrinas Melhoradas (PLM)) has benefited almost two million people in informal-urban areas of all the major towns in Mozambique. The programme helped set up production workshops (where latrine parts were made) through a combination of providing land (in many cases free of charge) for the workshops and by organising training activities (Trémolet et al., 2009). However, whilst widely used in South Asia the approach has not been replicated to the same degree in Africa. This is largely due to differences in the enabling environment of the two regions and the lack of access to transport, goods and services in Africa as compared to South Asia. However, even in South Asia, use is not as widespread as had been originally hoped and the approach is currently not being pushed strongly by any donor.

Perceived strengths and weaknesses

Strengths	Enables beneficiaries to make their own choice about what level of service they want and what they can afford.
Weaknesses	The approach tends to assist those who are already on the sanitation ladder and/or hygiene ladder and already defecate in a latrine or share a latrine to move up the ladder. It can marginalise poor people who do not have the capital to invest in sanitation improvements and exclude those who have not adopted the concept of latrine use. Appropriate financing arrangements (for example micro-finance) are essential to ensure that the SaniMarts are self-sustaining. Where SaniMart programmes are highly dependent on project-related subsidies they may not become established as viable businesses.

Evidence of effectiveness

Published internal evaluations	NEWAH (2004). Easy Access to Sanitation Materials in Rural Nepal An Evaluation of a SaniMart Pilot Project. Nepal Water for Health (NEWAH), Nepal. http://www.wateraid.org/documents/sanimart.pdf – Accessed March 2010. Cheruvari, S. (undated). East Midnapore – 100% toilet coverage. UNICEF, India. http://www.unicef.org/india/wes_1433.htm – Accessed March 2010.
Published external evaluations	Kolsky, P., Baumann, E., Bhatia, R., Chilton, J. and van Wijk C. (2000). Learning from Experience: Evaluation of UNICEF's Water and Environmental Sanitation Programme in India, 1966-1998. Swedish International Development Cooperation Agency, Stockholm. http://www.unicef.org/evaldatabase/files/IND_2000_800.pdf – Accessed March 2010. Trémolet, S., Perez, E. and Kolsky, P. (2010). Financing On-site Sanitation for the Poor. A Global Six Country Comparative Review and Analysis. WSP Sanitation Global Practice Team. Technical Paper, Water and Sanitation Program, The World Bank http://www.wsp.org/UserFiles/file/financing_analysis.pdf – Accessed March 2010.
What are impacts, outcomes and sustainability issues?	Kolsky et al. (2000) report that in India the concept was not as successful in practice as many had hoped and that progress was slow. In 1994, there were only about 100 RSMs, which had established 17,000 latrines and by 1999, only another 558 RSMs had been established. Evidence of the success of the approach in East Midnapore district, West Bengal, India is described by Cheruvari (undated). Twenty-five sanitary marts were established in every block of the district and have played a major role in enabling household toilet coverage to rise from 4.74% in 1991 to 100% in 2006 – a total of 783,623 household latrines were built in this period.
How much does it cost?	Insufficient data.
Human resource requirement?	There is little available data on human resource requirements. However, Trémolet (2009), reports that it is crucial to get the right mix between masons and promoters or "sales persons". If the mix is wrong then the supply will not match the demand, resulting in either a shortage of hardware items or a delay in construction of the latrines – both outcomes may result in households deciding not to construct a latrine.
How long does it take?	Insufficient data.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	WaterAid Website: SaniMart pilot in Nepal http://www.wateraid.org/international/what_we_do/where_we_work/nepal/2601.asp – Accessed March 2010. Trémolet, S. (2009). Personal communication.
Toolkits or guidebooks	None
Further reading	Ramakrishna Mission Lokasiksha Parishad website, available at: http://www.rkmnpur.org/URL/water_sanitation.htm – Accessed March 2010. Nahar, Q. and Ahmed, R. (2006). Addressing special needs of girls, Challenges in school. Presented in SACOSAN II, 2006, Islamabad, Pakistan. WSP (2000). Marketing Sanitation in Rural India. Field Note by WSP-SA, New Delhi, India. http://www.wsp.org/UserFiles/file/sa_marketing.pdf – Accessed March 2010. Sengupta, A. (1999). Creating Sanitation Awareness: Integrated Sanitation Project, Midnapore, India. World Bank conference on community water supply and sanitation. World Bank, Washington DC, USA. UNICEF (1998). Waterfront, A UNICEF Publication on Water, Environment, Sanitation and Hygiene, New York. http://www.unicef.org/french/wes/files/wf12e.pdf Accessed March 2010.

Additional information for SaniMarts was provided by Sophie Trémolet, Independent Consultant.

Part 2:

THE SOFTWARE

GROUP F
Programming Frameworks

This section presents a selection of planning approaches most of which have specifically been developed for urban areas. These are sanitation and hygiene organising ideas or frameworks that can be used to plan project and programme interventions.

Urban sanitation planning has typically been characterised by a split between the planning, implementation and operation of the 'formal' network services (typically waterborne sewerage serving parts of the planned area of the city) and the ad hoc provision of services to most of the rest of the city, including unplanned, informal and illegal settlements. While a number of NGO-led and CBO-led initiatives have worked hard to develop approaches which work in these informal settlements, few have managed to forge a constructive dialogue with city managers. Meanwhile much of the planning for the formal system fails to take into account the needs, capacities and constraints of the urban poor.

These approaches represent some of the work that has been done to encourage a better connection between these two realities. The section does not focus on specific project-based success stories, but rather focuses on the planning tools that have been developed.

This section also includes the Hygiene Improvement Framework – an overarching concept that is applicable in both urban and rural areas.

[F1] STRATEGIC SANITATION APPROACH/ STRATEGIC SANITATION PLANNING (SSA/SSP)

This is an approach to the delivery of urban sanitation services that engages with all the factors – social, technical, institutional and economic – which impact on the potential for sustained services provision to all sectors of the urban community. It focuses on incentives, demand responsiveness, unbundling of service delivery, and availability of choice between a range of technical, financial, and management options.

Summary table

Goal	Improve planning and implementation of hygiene and sanitation projects.		
Target group	Children ☐	Individuals ☐	Household ☒
	Community ☒	Schools ☐	Society ☒
How applied to date?	Rural ☐	Urban ☒	Informal-urban ☒
	Pilot ☐	Expanding ☒	At scale ☐
	In one country ☐	In more than one country ☐	
	In more than one region ☒	Worldwide ☐	

Description

The underlying principles of the SSA are its:

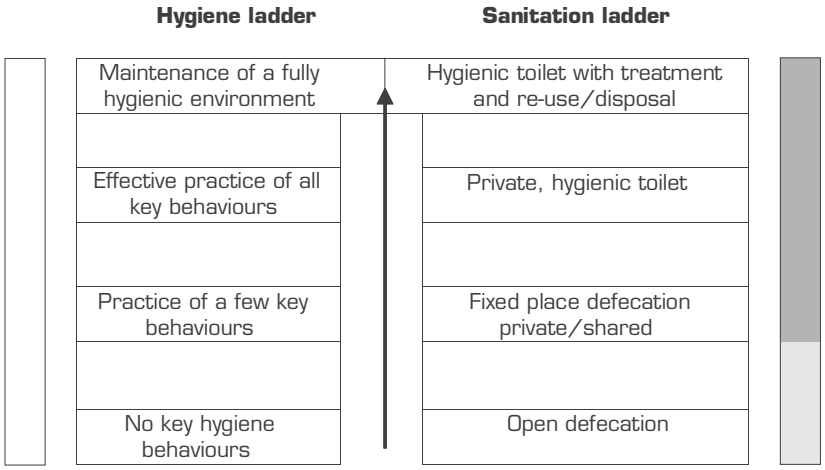
- demand orientation – in other words its assumption that sanitation services should be responsive to the expressed needs of users who should demonstrate this demand by bearing some or all of the costs incurred in meeting those needs;
- attention to incentives – identifying factors which tend to improve behaviour and performance of stakeholders relating to the sound management of completed facilities;
- horizontal unbundling – (or decentralised sanitation) in which large cities are subdivided into two or more small parallel independent sanitation service areas or zones;
- vertical unbundling where management of upstream sanitation services (toilets, neighbourhood networks, collection of on-site pit waste, management of local re-use etc) can be separated from the management of downstream collection, treatment and re-use/disposal of the resultant waste streams;
- choice between a range of technological, financing, and management options; and
- use of a neighbourhood-centred approach to sanitation, in which the neighbourhood, community, or the smallest independent parallel sanitation area, serves as the pivotal point for aggregation of household demand and the first level of zonal sanitation demand expression and, hence, sanitation service planning and service delivery.

Description

Beyond these underlying principles, the SSA requires:

- a commitment to sound finances;
- a concern with cities as a whole, rather than with discreet projects;
- a wide view of sanitation which encompasses stormwater drainage, sullage disposal, the disposal of human wastes and solid waste management;
- service differentiation – in other words, recognition that different sanitation options may be appropriate in different geographical areas within a city;
- unbundling of responsibilities – in other words adopting different institutional arrangements and/or making different organisations, institutions, groups and individuals responsible for the supply of services:
  - at the household, neighbourhood and city-wide levels (vertical unbundling); and
  - at different locations within the city (horizontal unbundling).
- a small steps approach, starting at one neighbourhood, and expanding in line with availability of financial and managerial resources; i.e. matching supply and demand.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	1989	**Year ended (if applicable)**	Ongoing
Origins (who by and where was it invented)	Water and Sanitation Program of the World Bank, Washington DC. Piloted in Kumasi, Ghana and in Ouagadougou, Burkina Faso.		
Funding from (name of donor agencies, if applicable)	WSP and The World Bank.		
Countries used in to date	Ghana, Burkina Faso, Thailand, Brazil, Philippines, Indonesia, Pakistan and India.		

History of approach

Experience to date

Developed in the late 1980s, SSA was piloted in Kumasi, Ghana, and in Ouagadougou, Burkina Faso. It was the basis for the Bombay (Mumbai) Slum Sanitation Project designed in 1995 as part of a World Bank sewage disposal project for Mumbai, India. Its principles are inherent in the unbundling of sewerage in Bangkok; in the condominial sewerage system for Brasilia and other cities in Brazil and Latin America; in the most recent form of the Orangi Pilot Project's approach to urban sanitation in Pakistan; and in Indonesia, where its principles have shaped the design of the Indonesia Sanitation Sector Development Program (ISSDP).

Experience in Bharatpur, India concluded that the SSA is quite different to standard municipal practice and for widespread adoption state governments need to incorporate such practices into municipal routines. The pilot also highlighted the acute need for capacity-building of government staff if they are to fulfil the managerial and technical responsibilities that come with use of the approach (Colin, 2000).

In contrast, Vezina (2002) reports greater success with using SSA in Ouagadougou, Burkina Faso. Here a parastatal organisation (the National Water and Sanitation Office (ONEA)) has been appointed by the government as the lead agency in the sanitation sector; this has given it the necessary authority to carry out its work. ONEA itself generates the funds to finance the sanitation improvements by levying a surcharge on the cost of treated water. These funds do not go through the central government budget so the fact that the same institution is responsible both for levying the surcharge and implementing the programme has been critical and an important part of the approaches' success.

Perceived strengths and weaknesses

Strengths

SSA takes a long-term, city-wide, integrated sanitation programme approach rather than a short-term, discrete, project approach which enables a thorough strategic plan to be developed for the whole municipal area.

The idea of unbundling allows for sanitation problems to be addressed at the local level within an overall framework which ensures that local sanitation services are sustainable. Thus, household demand can be aggregated and addressed at the neighbourhood level; neighbourhood sanitation may then be dealt with locally or aggregated and addressed by the city as appropriate.

SSA provides a framework for good planning and focuses attention on the need for both improved access at the household level and proper management of the entire sanitation system by the city. It also creates an explicit link between technical decision making and long term financial strategies.

Weaknesses

There are two main sets of weaknesses. The first relates to the knowledge and capacity of planners themselves; In particular there may be limited experience of assessing and aggregating demand, identifying local and neighbourhood management options, coordinating between local and city-wide plans and understanding long term financial options.

The second set of weaknesses relate to the enabling environment; cities have limited authority to set and recover fees, they may have limited control over their investment budgets, there may be adverse technical norms and standards that preclude decentralised and other appropriate technologies. Further, in most cities the management of on-site sanitation is institutionally separate from the management of sewerage, making coordination difficult.

Evidence of effectiveness

Published internal evaluations	Colin, J., Ceetelaar, C., Utomo, N.T. and Blackett, I.C. (2009). Urban Sanitation in Indonesia: Planning for Progress, WSP-EAP, Jakarta, Indonesia. http://www.wsp.org/UserFiles/file/Urban_San_Indonesia.pdf – Accessed March 2010. Vezina, M. (2002). The Ouagadougou Strategic Sanitation Plan: An Holistic Approach to a City's Problems. Field Note 10, Blue Gold Series. WSP, Africa. Colin, J. (2000). Urban Environmental Sanitation Planning. Lessons from Bharatpur, Rajasthan, India WSP SA, New Delhi India. http://www.sulabhenvis.in/admin/upload/pdf_upload/sa_bharatpur.pdf – Accessed March 2010.
Published external evaluations	None
What are impacts, outcomes and sustainability issues?	In Indonesia, where the ISSDP is ongoing, central government has indicated that city sanitation strategies will in future provide the framework for allocations to cities for sanitation investments. The new approach to planning is being adopted within established administrative processes and the government intends to scale up the formulation of city strategies from 2010 onwards (Colin, 2009). Technical assistance will be made available to develop capacity for sanitation planning and investment at all levels of government. Small incremental steps are planned and implemented as part of the larger, longer-term strategy.
How much does it cost?	Insufficient data.
Human resource requirement?	Insufficient data.
How long does it take?	Insufficient data.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	Tayler, K. (1998). Strategic Sanitation in South Asia. 24th WEDC Conference, Sanitation and Water for All. Islamabad, Pakistan. Colin, J. (2009). Personal communication by email 29th June 2009.
Toolkits or guidebooks	Tayler, K., Colin, J. and Parkinson, J. (2000). Strategic Sanitation Planning, A Guide. GHK, WEDC and WSP South Asia, UK.
Further reading	Salifu, L. (2008). Presentation from the 2008 World Water Week in Stockholm. WasteCare Associates, Ghana. GHK (2002). Effective Strategic Planning for Urban Sanitation Services, Fundamentals of Good Practice. GHK Research and Training, UK. http://www.ghkeurope.com/products/prd02.asp?id=4 – Accessed March 2010. Orangi Pilot Project Institutions and Programs (2002). 89th Quarterly Report, Jan, Feb, March 2002. Orangi Pilot Project Institutions and Programs, Karachi, Pakistan. WHO (2002). Mumbai Slum Dwellers' Sewage Project Goes Nationwide. Bulletin of the World Health Organization, 2002 80 (8). WHO, Geneva, Switzerland. Neder, K. D. (1999). Condominial Sewerage Systems for the Federal District of Brazil. The 1999 Water Supply and Sanitation Forum on Financing Sustainable Services. World Bank Institute and the Water & Sanitation Division of the World Bank. Washington DC, USA.

Sources of information, toolkits, guidebooks and further reading

Further reading

Orangi Pilot Project Research and Training Institute (1998). Proposal for a sewerage disposal system for Karachi. City Press, Karachi, Pakistan

Saywell, D. and Cotton, A. (1998). Strategic Sanitation Approach – a review of literature. Water, Engineering, and Development Centre (WEDC), Loughborough University, UK

Wright, A.M. (1997). Toward a strategic sanitation approach: improving the sustainability of urban sanitation in developing countries. UNDP http://www-wds.worldbank.org – Accessed March 2010.

World Bank (1995). Bombay Sewage Disposal Project: Staff Appraisal Report. World Bank, Washington DC, USA

Additional information for SSA/SSP was provided by Albert Wright, Independent Consultant and Jeremy Colin, Independent Consultant.

[F2] SANITATION 21

The Sanitation 21 Framework is a simplified representation of the complex urban sanitation planning process. It is a guide for planners/designers and helps to build bridges between institutional analysis and technical planning.

Summary table

Goal	Improve planning and implementation of sanitation projects.		
Target group	Children ☐	Individuals ☐	Household ☒
	Community ☒	Schools ☐	Society ☒
How applied to date?	Rural ☐	Urban ☒	Informal-urban ☒
	Pilot ☒	Expanding ☐	At scale ☐
	In one country ☐	In more than one country ☐	
	In more than one region ☒	Worldwide ☐	

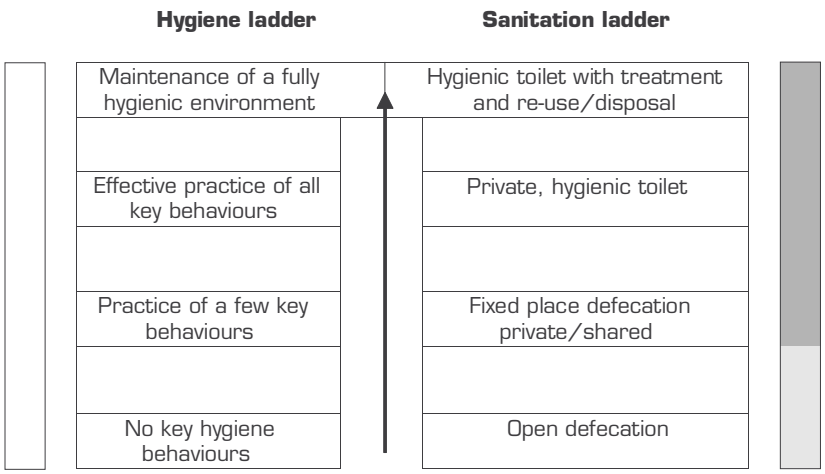
Description

Sanitation 21 is a planning framework for urban sanitation which:

- promotes an analysis of the objectives of a sanitation system across all domains of the city, *including the household* (other domains include the neighbourhood, city and beyond the city);
- promotes an analysis of the external drivers and contexts which impact on behaviour in each domain;
- analyses technical options in terms which relate elements of the system to these domains;
- encourages a realistic assessment of the management requirements in each domain; and then
- prompts the planner/designer to ask, will it work? Are the management requirements matched by management capacity throughout the system? Is what we are proposing *fit for the purpose?*

The approach is not radically new but draws on well-established principles of good planning and design practice from within the technical world and also from much thinking in the development world. The main ethos of the approach is 'let's do planning and design better' (IWA, undated).

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	2006	**Year ended (if applicable)**	Ongoing
Origins (who by and where was it invented)	International Water Association (IWA), drawing on previous work including SSA and HCES.		
Funding from (name of donor agencies, if applicable)	International Water Association (IWA).		
Countries used in to date	Afghanistan, Uganda, India, Tanzania.		
Experience to date	To date no reports of experience of its use has been documented.		

Perceived strengths and weaknesses

Strengths Weaknesses	No reports of experience available so no specific strengths or weaknesses have been identified.

Evidence of effectiveness

Published internal evaluations	None
Published external evaluations	None
What are impacts, outcomes and sustainability issues?	Insufficient data.
How much does it cost?	Insufficient data.
Human resource requirement?	Insufficient data.
How long does it take?	Insufficient data.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	IWA (undated). Sanitation 21: Simple Approaches to Complex Sanitation A Draft Framework for Analysis. IWA, UK. http://www.iwahq.org/Mainwebsite/Resources/Document/Sanitation21.pdf – Accessed March 2010. Sanitation 21 website (part of IWA) http://www.iwahq.org/Home/Development/Technical_Expertise/Sanitation_21/ Accessed March 2010.
Toolkits or guidebooks	None available.
Further reading	Evans, B. (2008). The Sanitation 21 Framework Simple Approaches to a Complex Problem. Presentation from Stockholm, 2008 World Water Week. http://www.worldwaterweek.org/documents/WWW_PDF/2008/sunday/K24/Sanitation_21_Barbara_Evans.pdf – Accessed March 2010.

[F3] HOUSEHOLD-CENTRED ENVIRONMENTAL SANITATION (HCES)

HCES is an integrated approach to environmental sanitation based on the Bellagio Principles. The approach puts individuals, households and communities at the centre of the planning, decision-making and implementation process.

Summary table

Goal	Improved planning and implementation of hygiene and sanitation projects				
Target group	Children	☐	Individuals	☒	Household ☒
	Community	☒	Schools	☐	Society ☒
How applied to date?	Rural	☐	Urban	☒	Informal-urban ☒
	Pilot	☐	Expanding	☒	At scale ☐
	In one country	☐	In more than one country	☐	
	In more than one region	☒	Worldwide	☐	

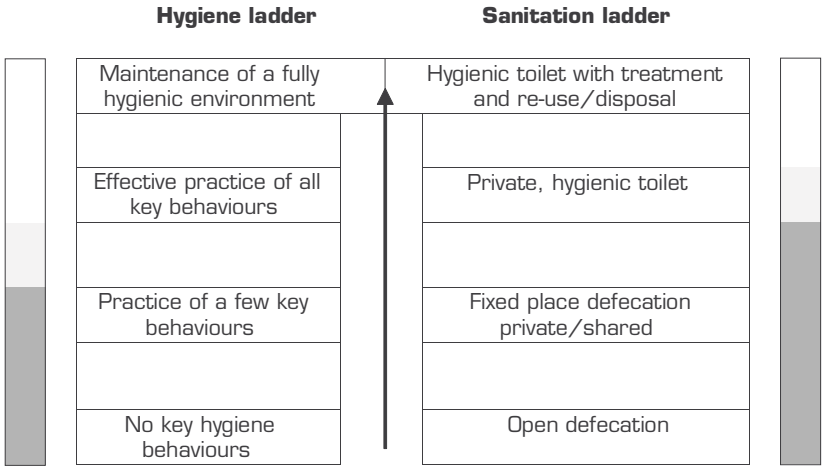
Description

The HCES approach is founded upon the Bellagio Principles for Sustainable Sanitation. The Principles were endorsed by the members of the WSSCC during the 5th Global Forum in November 2000 and state that human dignity, quality of life and environmental security should be at the centre of the new approach; decision-making should involve participation of all stakeholders; waste should be considered as a resource and should form part of an integrated water resources and waste management process; and that environmental sanitation problems should be resolved at as low a level as possible (e.g. at household or community level) (Zurbrügg et al., 2004).

Based on these principles the HCES is an integrated approach where safe water supply, environmental sanitation and hygiene promotion are addressed simultaneously. It places the household and neighbourhood at the core of the planning and implementation process. Decisions on determining the type of environmental sanitation services to be implemented are heavily based on the actual needs and means of the users and are taken in close consultation with all the stakeholders.

The HCES approach suggests a holistic planning process whose key participants are the stakeholders, including those at the household level, especially women, who make the basic decisions on personal hygiene and environmental services. Local government and government agencies respond to the needs by creating an environment which enables the successful implementation of the services identified as the most adequate during the participatory planning process. A further feature is the environmental sustainability concept based on circular resource management systems, where environmental sanitation problems are addressed as close as possible to their source and an emphasis is placed on resource conservation and waste reduction (Lüthi and Tilley, 2008).

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	2000 **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	WSSCC and Eawag-Sandec.
Funding from (name of donor agencies, if applicable)	WHO, Swiss Agency for Development and Cooperation and UN-Habitat.
Countries used in to date	Costa Rica, Burkina Faso, Kenya, Tanzania, Laos, Nepal and Mongolia.
Experience to date	Six testing sites have been selected and the HCES process initiated at one site in Costa Rica (Central America), one in Burkina Faso (West Africa), two in East Africa (Kenya and Tanzania) and two in Asia (Laos and Nepal) (Lüthi et al., 2008).

Perceived strengths and weaknesses

Strengths	HCES offers the possibility of providing economic and non-economic benefits and an integrated, affordable and sustainable package of services meeting the users' priorities (Eawag, 2005). HCES focuses planning and decision making on the needs and aspirations of the urban household (clean environment, convenient safe toilets etc), so differs from conventional planning frameworks which tend to focus on the provision of 'downstream' elements of the system (collector sewers, wastewater treatment plants). The focus on treating waste as close as possible to the point of production encourages decentralised systems with lower management costs and better opportunities for waste reduction and reuse.
Weaknesses	It requires collaboration and coordination between multiple agencies which may have different capabilities and little commitment to working together. The demands of HCES may be difficult for many city planners and managers to adjust to; significant external support may be needed to build capacity for this type of planning at the local level. Many cities lack the financial and technical autonomy to support or implement the type of decision making suggested by the HCES. Therefore, HCES should only be considered where there is a strong political commitment to the sustained effort essential to success.

Evidence of effectiveness

Published internal evaluations	Lüthi, C., Morel, A., Kohler, P. and Tilley, E. (2009). People's Choice First, A 4-Country Comparative Validation of the HCES Planning Approach for Environmental Sanitation. NCCR North-South Dialogue 22. Bern, Switzerland. http://www.eawag.ch/organisation/abteilungen/sandec/publikationen/publications_sesp/index_EN – Accessed March 2010. Lüthi, C., Morel, A. and Tilley, E. (2008). Integrate at the Top, Involve at the Bottom – The Household-Centred Approach to Environmental Sanitation. Department of Water and Sanitation in Developing Countries (Sandec) at the Swiss Federal Institute of Aquatic Science and Technology (Eawag), Dübendorf, Switzerland.
Published external evaluations	None
What are impacts, outcomes and sustainability issues?	Based on knowledge gathered from a validation of HCES in four countries, Lüthi et al. (2009) found that compared to supply-led approaches the multi-actor process can lead to more affordable and manageable sanitation systems for the un-served urban poor and delivers community ownership and empowerment by giving the end-users a voice regarding how they prioritise investments in infrastructure. HCES relies on a sound balance between bottom-up processes (i.e. determining needs, defining solutions, implementing plans) and top-down processes (i.e. navigating the institutional and enabling environment, engagement of government institutions in the expansion of community-led service provision). However, to be viable the methods and tools employed must be easy to use and the planning tools must be context-relevant.
How much does it cost?	Costs between US$15,000 to US$20,000 including all workshop costs. Depending on target population this translates to planning costs of US$1.50 to US$ 5 per person (Lüthi, 2009).
Human resource requirement?	One planning process coordinator with skills in moderating multi-actor processes; One engineer who is knowledgeable about low-cost sanitation technology options; and One community outreach officer to assist in community mobilisation (Lüthi, 2009).
How long does it take?	The planning process takes about 12-15 months to reach implementation phase (Lüthi, 2009).

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	The Swiss Federal Institute for Environmental Science and Technology (EAWAG) http://www.sandec.ch – Accessed March 2010. Lüthi, C. (2009). Personal communication by email, 29 March 2009.
Toolkits or guidebooks	Eawag (2005). Household-Centred Environmental Sanitation; Implementing the Bellagio Principles in Urban Environmental Sanitation – Provisional Guideline for Decision-Makers. Eawag/WSSCC, Switzerland. http://www.eawag.ch/organisation/abteilungen/sandec/publikationen/publications_sesp/hces_guidelines – Accessed March 2010.
Further reading	Lüthi, C. and Tilley, E. (2008). HCES: A new approach for environmental sanitation planning for urban areas. 33rd WEDC International Conference, Access to Sanitation and Safe Water: Global Partnerships and Local Actions. Accra, Ghana. Zurbrügg, C. Morel, A. and Schertenleib, R. (2004). New approaches for improved sustainability in urban environmental sanitation infrastructure and services. SANDEC, Switzerland. http://www.eawag.ch/organisation/abteilungen/sandec/publikationen/publications_sesp/downloads_sesp/CETAMB-paper.pdf – Accessed March 2010.

Additional information for HCES was provided by Christoph Lüthi and Elisabeth Tilley of Eawag-Sandec, Switzerland.

[F4] HYGIENE IMPROVEMENT FRAMEWORK (HIF)

The HIF is a tool for designing and implementing diarrhoea prevention activities. It is not an approach as such but a comprehensive framework which attempts to prevent diarrhoea by addressing three key components: access to the necessary hardware or technologies, promoting healthy behaviours and support for an enabling environment to ensure wide-scale application and sustainability.

Summary table

Goal	Improved planning and implementation of hygiene and sanitation projects.		
Target group	Children ☒	Individuals ☒	Household ☒
	Community ☒	Schools ☒	Society ☒
How applied to date?	Rural ☒	Urban ☒	Informal-urban ☒
	Pilot ☐	Expanding ☒	At scale ☐
	In one country ☐	In more than one country ☐	
	In more than one region ☒	Worldwide ☐	

Description

The HIF is a holistic programming framework where all aspects of hygiene are promoted including improvements to water supply services. The framework was originally developed by USAID's Environmental Health Project and further refined by USAID, UNICEF, WSP and others. HIF is based on the premise that in order to prevent diarrhoea an intervention should comprise three components: access to hardware, hygiene promotion and an enabling environment. These three components are the key elements of the framework and are designed to encourage household behaviours that reduce the incidence of childhood diarrhoea, namely: safe disposal of faeces, washing hands correctly at the right times, and storing and using safe water for drinking and cooking.

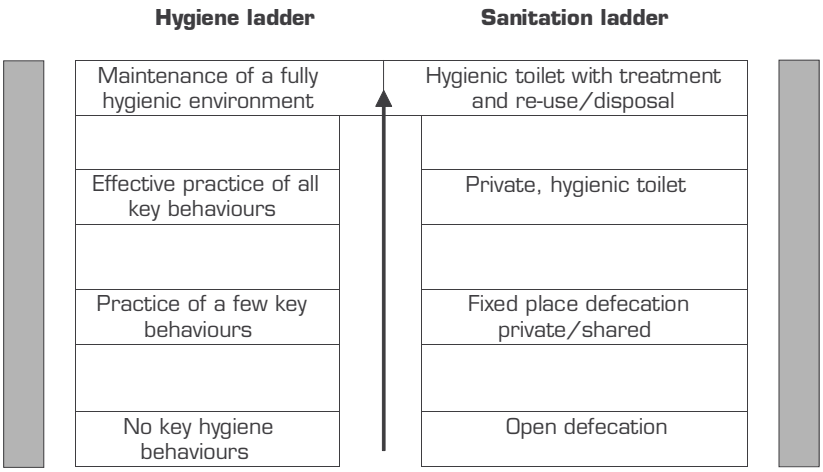
Improving access to hardware includes:

- Continuous safe water supply systems to communities and neighbourhoods.
- Sanitation facilities to dispose of faeces, especially the faeces of young children.
- Technologies and materials for improving household level hygiene, such as soap, water treatment and safe storage containers.

HIF can equally be applied to both urban and rural programming.

It should be emphasised that it is not an approach in itself but a framework within which the approaches included in this document can be implemented.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	1999 **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	Environmental Health Project (EHP) of the United States Agency for International Development (USAID). Central America
Funding from (name of donor agencies, if applicable)	USAID, UNICEF, WSSCC and WSP.
Countries used in to date	Bangladesh, Guatemala, Jamaica, Nicaragua, DR Congo, Ethiopia, Kenya, Madagascar, Mozambique, Uganda.
Experience to date	USAID has developed a number of programmes using the framework including the Community-led Total Behaviour Change programme being implemented by the Government of Ethiopia, supported both by USAID and WSP; see Amhara National Regional State Health Bureau (2005). UNICEF has also adapted the HIF as the framework of its current WASH strategy.

Perceived strengths and weaknesses

Strengths	Highly effective framework for comprehensive WASH programming that achieves maximum health benefits. Used and creatively adapted by several organisations in the sector. Can be modified to include objectives other than diarrhoeal disease reduction (e.g., utility reform, sludge removal).
Weaknesses	Programming that includes all elements of the framework is not always feasible due to external constraints.

Evidence of effectiveness

Published internal evaluations	Favin, M. (2004). Promoting Hygiene Behavior Change within C-IMCI: The Peru and Nicaragua Experience. EHP, Washington DC, USA. http://www.ehproject.org/PDF/Activity_Reports/AR-143CIMCI%20-format.pdf – Accessed March 2010.
Published external evaluations	None

Evidence of effectiveness

What are impacts, outcomes and sustainability issues?	Not applicable. Since it is not an approach in itself (but a framework within which other approaches can be implemented) it is not appropriate to assess its effectiveness independently.
How much does it cost?	Not applicable.
Human resource requirement?	Not applicable.
How long does it take?	Not applicable.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	Sorti, C. (ed). (2004). The Hygiene Improvement Framework A Comprehensive Approach for Preventing Childhood Diarrhea. Joint Publication 8. EHP, UNICEF/WES, USAID, World Bank/WSP, WSSCC. http://www.ehproject.org/PDF/Joint_Publications/JP008-HIF.pdf – Accessed March 2010. USAID (2004). Preventing Childhood Diarrhea Through Hygiene Improvement. Pamphlet produced by EHP, USA – adapted from Joint Publication 8. http://www.ehproject.org/PDF/Joint_Publications/JP0013-HIFPhamplet%20PS.pdf – Accessed March 2010. USAID (2004). Preventing Childhood Diarrhea Through Hygiene Improvement. Brochure produced by EHP, USA – adapted from Joint Publication 8. http://www.ehproject.org/PDF/Joint_Publications/JP004SAFEr.pdf – Accessed March 2010.
Toolkits or guidebooks	USAID/HIP (2009). WASH Training Package for the Prevention of Diarrheal Disease: Guide for Training Outreach Workers. USAID/HIP, AED, Washington DC, USA. Amhara National Regional State Health Bureau (2005). Woreda Resource Book; Community-Led Total Behavior Change in Hygiene and Sanitation. The Amhara Experience in Line with the Health Extension Program. Amhara National Regional State Health Bureau supported by WSP, USAID and HIP. http://www.wsp.org/UserFiles/file/Amhara_Woreda_Community_Led_Sanitation_Hygiene.pdf – Accessed March 2010. Favin, M., Naimoli, G. and Sherburne, L. (2004). Improving Health through Behavior Change, A Process Guide on Hygiene Promotion. Joint Publication 7. USAID, PLAN and WHO. Washington DC, USA. http://www.ehproject.org/PDF/Joint_Publications/JP007-CIMCIProcessGuideWeb.pdf – Accessed March 2010.
Further reading	Kleinau, E., Post, M. and Rosensweig, F. (2004). Advancing hygiene improvement for diarrhea prevention: lessons learned. Environmental Health Project (EHP), Washington DC, USA. http://pdf.usaid.gov/pdf_docs/PNADA451.pdf – Accessed March 2010. Bateman, O.M. et al. (2002). Prevention of Diarrhea Through Improving Hygiene Behaviors. EHP-CARE-ICDDR/B, EHP Joint Publication No. 4. Washington DC, USA. McGahey, C. (2001). Urban Environmental Health Pilot Activities: Evaluation of Progress and Lessons Learned. EHP Activity Report 116. Washington DC, USA. Saadé, C., Bateman, M. and Bendahmane, D.B. (2001). The Story of a Successful Public-Private Partnership in Central America: Handwashing for Diarrhoeal Disease Prevention. Published by the Basic Support for Child Survival Project (BASICS II), the Environmental Health Project, the United Nations Children's Fund, the United States Agency for International Development, and The World Bank, USA http://www.ehproject.org/PDF/Joint_Publications/JP001CentAmHandwash.PDF – Accessed March 2010.

Additional information for HIF was provided by Merri Weinger, Sandra Callier and Sarah Fry of HIP/USAID.

[F5] FOAM AND SANIFOAM

FOAM (Focus on Opportunity, Ability and Motivation) and SaniFOAM (Sanitation FOAM) are conceptual frameworks to help programme managers and implementers understand and analyse handwashing and sanitation behaviours.

Summary table

Goal	Improved planning and implementation of hygiene and sanitation projects.				
Target group	Children	☒	Individuals	☒	Household ☒
	Community	☐	Schools	☐	Society ☐
How applied to date?	Rural	☒	Urban	☒	Informal-urban ☒
	Pilot	☒	Expanding	☐	At scale ☐
	In one country	☐	In more than one country	☐	
	In more than one region	☒	Worldwide	☐	

Description

The FOAM and SaniFOAM frameworks have been developed by the Water and Sanitation Program and its partners to help practitioners in accomplishing the following:

- Analysing the results of available formative studies
- Informing the design of new research
- Prioritising the behaviours to be changed and the populations to be targeted
- Understanding and considering the range of factors that influence a particular behaviour
- Focusing and prioritising interventions on particular factors for behaviour change
- Improving the effectiveness of interventions aimed at changing the behaviour, and
- Identifying the appropriate indicators to monitor.

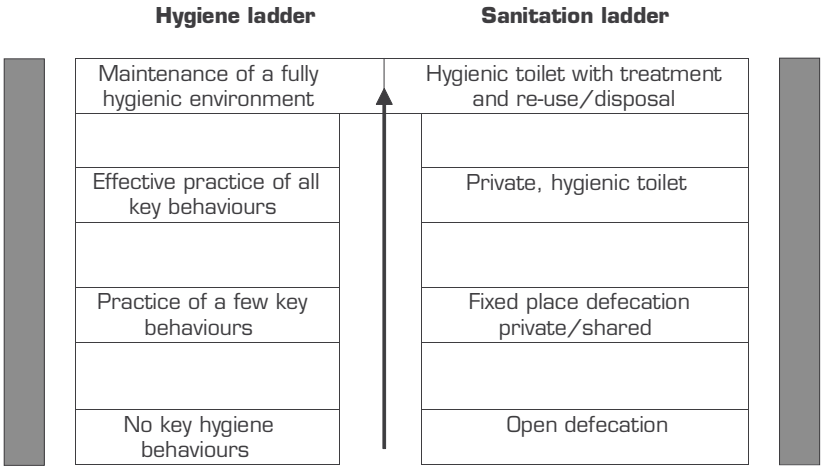
Both FOAM and SaniFOAM identify the factors that influence the behaviours and classify these under the categories of Opportunity, Ability and Motivation. Examples of determinants under each of these categories are as follows:

- Opportunity: convenient access to soap and water or a toilet,
- Ability: affordability of soap or toilet options,
- Motivation: beliefs about soap or faeces.

The F in FOAM and SaniFOAM stands for Focus, which serves to identify what target population and behaviour is being analysed. Thus the frameworks can be used to analyse multiple behaviours, including handwashing at various critical times (e.g., after using a toilet), handling of children's excreta and defecating in the open.

FOAM and SaniFOAM have been applied by two global programmes namely; the Global Scaling Up Handwashing Project and Global Scaling Up Sanitation Project in six countries **(see Part 3.5)**.

When is it best used on the hygiene and/or sanitation ladders?



History of approach

Year started	2007 (FOAM 2008 (SaniFOAM) **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	Water and Sanitation Program (WSP) FOAM: Developed during a workshop in Hanoi in March 2007 by participants from the Global Scaling Up Handwashing Project. SaniFOAM: Developed at a workshop in Durban, South Africa in 2008 attended by participants from six organisations including UNICEF, LSHTM, USAID and AED/HIP.
Funding from (name of donor agencies, if applicable)	The Bill and Melinda Gates Foundation.
Countries used in to date	Indonesia, Tanzania, India, Senegal, Vietnam, Peru.
Experience to date	The approaches are being used in the Global Programmes which are further described in **Part 3.5**.

Perceived strengths and weaknesses

Strengths	The approach is adaptable to different populations and behaviours and has been designed so that it is simple to use.
Weaknesses	The framework does not suggest relationships (cause-effect) between determinants.

Evidence of effectiveness

Published internal evaluations	None
Published external evaluations	None
What are impacts, outcomes and sustainability issues?	In Indonesia (East Java) FOAM was used to help identify determinants of behaviour at various stages along the sanitation ladder using 2008 household survey data. Higher social status and access to quality suppliers were found to be associated with improved sanitation. These findings helped programme managers improve their behaviour-change communication strategy. Both in Peru and Senegal, handwashing was found to be significantly correlated with access to soap and water when needed at a designated place. As a result, the Global Scaling Up Project has re-oriented interpersonal communication to focus on building skills of caretakers to create designated places for handwashing; additional studies on 'enabling products' for handwashing (e.g., handwashing stations, tippy-taps) are being undertaken (Devine, 2009b).
How much does it cost?	Insufficient data.
Human resource requirement?	Insufficient data.
How long does it take?	Insufficient data.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	WSP Website; Global Scaling Up Sanitation Project at http://www.wsp.org/index.cfm?page=page_disp&pid=1585 – Accessed March 2010. WSP Website; Global Scaling Up Handwashing Project at http://www.wsp.org/index.cfm?page=page_disp&pid=1586 – Accessed March 2010. Devine, J (2009a). Introducing SaniFOAM: A Framework to Analyze Sanitation Behaviors to Design Effective Sanitation Programs. WSP, Washington DC, USA. http://www.wsp.org/UserFiles/file/GSP_sanifoam.pdf – Accessed March 2010. Coombes, Y., Devine, J (2009). Introducing FOAM: A Framework to Analyze Handwashing Behaviors. Working paper of the WSP. WSP, Washington DC, USA. Devine, J (2009b). Personal Email communication 25 November 2009.
Toolkits or guidebooks	None
Further reading	WSP (2008). Developing a Sanitation Behavior Change Framework: SaniFOAM. Workshop Report February 21-22, 2008. WSP, Washington DC, USA. Durban, South Africa. http://www.wsp.org/UserFiles/file/SaniFOAM_Report409_3.pdf – Accessed March 2010. **See also the Global Programmes in Part 3 namely, 3.5.1 – Global Scaling Up Sanitation; and 3.5.2 – Global Scaling Up Handwashing Behavior Change.**

Additional information for FOAM and SaniFOAM was provided by Jacqueline Devine of the Water and Sanitation Program.

Part 3:

COMBINED NATIONAL AND GLOBAL PROGRAMMES

This section includes information on several major national and global sanitation and hygiene programmes all of which make use of at least one of the approaches described elsewhere in the document – illustrating how they can be combined and used in real-life programming that operates at scale.

Firstly, significant approaches adopted in India, Ethiopia, Bangladesh and Benin are described – developments in these four countries are considered to be of particular interest. A large section of India's huge population remains unserved by sanitation services and the challenge to meet the needs of this group is daunting. The Indian government's Total Sanitation Campaign and Sulabh International Social Services Organisation pay-and-use toilets are examples of two very different approaches being implemented across the country. In contrast, Ethiopia is a relatively small country with a much smaller population, nevertheless, it has until recently been at the bottom of the 'access to sanitation' league table. Two recent approaches that have begun to resolve this problem are described next. Bangladesh meanwhile has been at the forefront of sanitation and hygiene improvement initiatives in South Asia, consequently two of the most significant programmes are included as examples of the approaches being used to achieve the MDGs in Bangladesh. Lastly, the National Rural Sanitation and Hygiene Promotion Program (PHA) in Benin is described. This is presented as a good example of 'at-scale' implementation of a combination of approaches by a national government.

Finally, two approaches are included that are being scaled up and rolled out in many countries worldwide. These both use at least one of the approaches described elsewhere in the document.

It is important to note that the programmes and approaches included in this section are examples only and, although they are considered to be approaches that will be of interest, they do not necessarily represent the "best" approaches or models that WSSCC endorses above or instead of other cases.

3.1 INDIA

Despite significant investments over the last 20 years India faces a daunting hygiene and sanitation challenge. UNICEF estimate that over 400,000 children under the age of five die each year from diarrhoea, more than 1,000 every day. Several million more suffer from multiple episodes of diarrhoea and still others fall ill on account of Hepatitis A, enteric fever, intestinal worms and eye and skin infections caused by poor hygiene and unsafe drinking water. Diarrhoea remains the major cause of death amongst children after respiratory-tract infections, with unhygienic practices and unsafe drinking water being its main causes. Sanitation coverage remains low and current statistics show that more than 122 million households in the country are without toilets (UNICEF India website, 2009).

Encouragingly the WHO/UNICEF-JMP (2008) reports that sanitation coverage has risen significantly from 14% in 1990 to 28% in 2006 and more recent estimates by the Government of India (2007a) put the figure as high as 49%. Whilst sanitation coverage and usage in general is rising, in rural areas the JMP reports that coverage remains low (only 18% in 2006) and furthermore, 74% of the rural population are still practicing open defecation. Clearly, there is still a long way to go to meet the Millennium Development Goal of halving, by 2015, the proportion of people without sustainable access to basic sanitation.

The Government of India's flagship programme to improve rural sanitation is entitled the Total Sanitation Campaign (TSC). The TSC has set an ambitious target, beyond the MDGs and aims to achieve universal sanitation coverage in the country by the end of the country's Eleventh Plan which is in 2012 (GoI, 2007a). The TSC moves away from the infrastructure-focused approach of earlier government initiatives and advocates a participatory and demand driven approach which concentrates on promoting behaviour change. The Total Sanitation Campaign is described further below.

The second approach described was created by an Indian NGO, Sulabh International Services Organisation. Sulabh has nearly forty years experience in sanitation services in India particularly with latrines in public places, it is estimated that 10 million Indians use a Sulabh-managed latrine every day. The Sulabh approach is different from many in this document as it includes a substantial hardware component; nevertheless it does demonstrate the use of both the sanitation marketing approach **(see Group S2)** and a public-private partnership arrangement.

REFERENCES:

UNICEF India website (2009). Children's issues: water and sanitation. Available at http://www.unicef.org/india/children_2357.htm – Accessed March 2010.

WHO/UNICEF-JMP (2008). Progress in Drinking-water and Sanitation: special focus on sanitation. UNICEF, New York and WHO, Geneva. http://www.wssinfo.org/en/40_MDG2008.html – Accessed March 2010.

Government of India (2007a). Planning Commission Eleventh Five-Year Plan (2007-2012). Government of India, New Delhi, India. http://ddws.gov.in/popups/XIPlan_BHARAT%20NIRMAN.pdf – Accessed March 2010.

3.1.1 TOTAL SANITATION CAMPAIGN (TSC), INDIA

This is a comprehensive, nationwide programme to ensure sanitation facilities in rural areas with a broader goal to eradicate the practice of open defecation.

Summary table

Goal	Improving the quality of life of the rural people and providing privacy and dignity to women.		
Target group	Children ☐	Individuals ☒	Household ☐
	Community ☒	Schools ☒	Society ☐
How applied to date?	Rural ☒	Urban ☐	Informal-urban ☐
	Pilot ☐	Expanding ☐	At scale ☒
	In one country ☒	In more than one country ☐	
	In more than one region ☐	Worldwide ☐	
Cross-references to PART 2?	Community-Led Total Sanitation **S1.1** SaniMarts **S.2.2** WASH in Schools **H.1.4**		

Description

The Total Sanitation Campaign (TSC) is a nationwide programme although implementation varies from state to state. The main objectives of the TSC are to:

- Bring about an improvement in the general quality of life in the rural areas;
- Accelerate sanitation coverage in rural areas;
- Generate felt demand for sanitation facilities through awareness creation and health education;
- Cover schools and anganwadis in rural areas with sanitation facilities and promote hygiene education and sanitary habits among students;
- Encourage cost effective and appropriate technologies in sanitation;
- Eliminate open defecation to minimise risk of contamination of drinking water sources and food; and
- Convert dry latrines to pour flush latrines, and eliminate manual scavenging practice, wherever in existence in rural areas.

The major components of the TSC are:

- Start-up activities; comprising a situational analysis, base-line survey and formulation of a project implementation plan.
- IEC (information, education and communication) activities.
- Setting up and operation of rural sanitary marts (RSMs) and production centres which produce latrine slabs, SanPlats, washing platforms etc. which are then sold at the RSMs.
- Construction of individual household latrines for the poorest of households. As an initial step, the household builds its own basic low cost unit without a superstructure. For this a post construction incentive is paid by the government ranging from 70 to 80% depending on the cost and based upon an agreed financing pattern. The balance amount can be contributed by the participating household in the form of cash or labour. The incentive amount is paid only to Below Poverty Line (BPL) households; although, any toilet, even for a BPL household, which costs more than Rs.2,000 is not subsidised. Only pour flush latrines are permitted and all existing dry latrines have to be converted into pour flush latrines.
- Construction, operation and maintenance of Community Sanitary Complexes. These are shared facilities for a whole community and comprise toilets, shower or bathing cubicles, washing platforms and wash basins.

Description

- Construction of institutional latrines particularly in schools and in anganwadis (day-care centres for infants).
- Nirmal Gram Puraskar (NGP), national award introduced in 2005, comprising cash prizes ranging from Rs.50,000 (US$1,250) to Rs.50 lakhs (US$125,000) per village depending upon the size of the population. A certificate is presented by the President of India to successful villages or Gram Panchayats (local government institutions). Payments are based on a set of criteria (which include, amongst others 100% sanitation coverage of individual households and being open defecation free) and are made following a thorough verification process.

History of approach

Year started	1986 but reformed in 1999	**Year ended (if applicable)**	Ongoing
Origins (who by and where was it invented)	Department of Drinking Water Supply, Ministry of Rural Development, Government of India (GoI) India		
Funding from (name of donor agencies, if applicable)	GoI with support from UNICEF.		
Countries used in to date	India		
Experience to date	The Central Rural Sanitation Programme (CRSP) was launched in 1986 primarily with the objective of improving the quality of life of the rural people and providing privacy and dignity to women. In 1999, as part of reform initiatives the CRSP was renamed as the Total Sanitation Campaign (TSC) and restructured as a demand driven and people-centred programme. The GoI (2007b) reported that the TSC was being implemented throughout the country in 30 states with support from the Central Government and the respective state governments. Indeed it has been scaled up significantly and as of 2008 was operational in 590 of the 599 districts in India GoI (2009). This has led to the construction of household latrines in more than 57 million rural households (against a target of some 100 million); consequently individual household latrine coverage in the rural areas has risen from 22% in 2001 to about 57% in 2008. The Nirmal Gram Puraskar award was introduced in 2005 and has been successful as a fiscal incentive for achievement of sanitation outcomes. From just 40 Gram Panchayats (local government institutions) from six states that received the prize in 2005, the number rose to 4,959 Gram Panchayats from 22 states in 2007 (GoI, 2009).		

Evidence of effectiveness

Published internal evaluations	GoI (2009). Sustaining the Sanitation Revolution – India Country Paper for SACOSAN 3, New Delhi, 16-21 November 2008. Government of India Ministry of Rural Development Department of Drinking Water Supply Rajiv Gandhi National Drinking Water Mission, New Delhi, India. http://ddws.gov.in/popups/India%20Country%20Paper.pdf. Accessed March 2010. GoI (2007b). Total Sanitation Campaign Sanitation for All: 2012. Government of India Ministry of Rural Development Department of Drinking Water Supply Rajiv Gandhi National Drinking Water Mission, New Delhi, India. http://ddws.gov.in/popups/Total%20Sanitation%20Campaign%20Sanitation%20for%20All%20-%202012.pdf Accessed March 2010. AFC (2005). Mid-term evaluation of Total Sanitation Campaign (TSC) Programme Agricultural Finance Corporation Ltd. New Delhi, India. http://ddws.nic.in/study_report_afc.pdf – Accessed March 2010.

Evidence of effectiveness

Published external evaluations

TARU (2008). Impact Assessment of Nirmal Gram Puraskar Awarded Panchayats. Volume 1 – Final Report Published for UNICEF by TARU. India

Trémolet, S., Perez, E. and Kolsky, P. (2009). Financing Household Sanitation for the Poor. A Global Six Country Comparative Review and Analysis. A Flagship Report of the WSP Sanitation Global Practice Team. Water and Sanitation Program, Washington DC, USA.

WaterAid (2008). Feeling the Pulse A Study of the Total Sanitation Campaign in Five States. WaterAid, India.

Impacts, outcomes and sustainability

A survey of over 7,000 households across six states by TARU (2008) reports that although 85% of households had access to a toilet only 66% reported that they were using it as a toilet. TARU conclude that "the NGP award has helped in scaling up the TSC to a great extent and helped in improving sanitation practices, however very few GPs fulfill the 100 percent criteria of the NGP award".

Indeed, GoI (2009) highlights areas for improvement in the next five years of the TSC, these include more focus on hygiene promotion, better follow-up and support for operation and maintenance and improved monitoring of latrine usage.

Although implementation of the TSC varies between states, the GoI (2009) also recognises that overall the NGP has brought a great change in the attitudes of the community and it is promoting healthy competition among the Panchayats who strive to achieve total sanitation. It concludes that "the NGP is considered to be a resounding success and one of the main drivers of the TSC".

However, the Government of India is aware that the programme emphasis has been too much on construction of household toilets and whilst successful it needs to reorient itself to focus more on changing behaviour patterns (GoI, 2007a).

Trémolet et al. (2009) in an examination of the financing aspects of the TSC in Maharashtra note that whilst the project has been successful (21 million people have adopted improved sanitation and 22% of Gram Panchayats have achieved ODF status) the sustainability of ODF achievements remains challenging and appropriate post-ODF monitoring is required.

Trémolet et al. (2009) also observe that exclusion errors linked to poverty categorisation has created concerns regarding the equity of the scheme. Due to problems with the most recent population survey in 2003 most states still use data from a population survey dating back to 1997 – clearly many households will have moved in and out of poverty since then.

A study of the TSC in five states by WaterAid (2008) adds that while the NGP has been highly effective in accelerating the speed and scale of rural latrine coverage, the pace of coverage varies significantly across the states. Inspired leadership, particularly within governments, has been more effective than the high subsidy approach used in some states. Key challenges include a need for both independent verification of ODF status and ongoing monitoring and mobilisation to sustain it; and how to avoid neglect of other accompanying hygiene behaviour change such as handwashing with soap. TARU (2008) reach a similar conclusion and state that "The verification system is the most important component of NGP process on which the credibility of the award rests. The verification system needs further strengthening without which it may lead to dilution of the spirit behind the NGP award".

Evidence of effectiveness

How much does it cost?	India has invested heavily in the TSC – a budget of more than Rs. 4,400 crores (US$1.4 billion) has been allocated for TSC projects since inception in 1999 (GoI, 2009). TSC project funding is split between six main components: ◗ Five percent on start-up activities (baseline survey, project preparation, awareness raising); ◗ Fifteen percent on IEC activities (demand creation); ◗ Five percent on rural sanitary marts and production centres (supply of toilet components); ◗ Sixty percent on subsidies for individual household toilets and community sanitary complexes; ◗ Ten percent on school and anganwadi sanitation facilities and hygiene education; and ◗ Five percent on project administrative charges (training, overheads, monitoring, and evaluation). Trémolet et al. (2009) found that in Maharashtra an individual household funds 90% of the cost of adopting sanitation and the public purse (including the TSC and the NGP) fund the remaining 10%.
Human resource requirement?	Insufficient data.
Time required to complete intervention	The TSC operates through district projects which are of three to five years duration (GoI, 2009).

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	Website of Department of Drinking Water Supply, Ministry of Rural Development, entitled 'Total Sanitation Campaign' at http://ddws.nic.in/tsc_index.htm – Accessed March 2010.
Toolkits or guidebooks	GoI (2007c). Total Sanitation Campaign Guidelines. Department of Drinking Water Supply, Ministry of Rural Development, India. http://ddws.nic.in/popups/TSC%20Guideline%200ct07.pdf – Accessed March 2010.
Further reading	Ganguly, S. C. (2008). India's national sanitation and hygiene programme: From experience to policy West Bengal and Maharashtra models provide keys to success. Chapter 10 of Beyond Construction, Use by All. WaterAid, UK and IRC, Netherlands. http://www.wateraid.org/documents/ch10_indias_national_sanitation_and_hygiene_programme_1.pdf – Accessed March 2010. Sanan, D. and Moulik, S.G. (2007). Community-Led Total Sanitation in Rural Areas An Approach that Works. WSP –SA, New Delhi, India. http://esa.un.org/iys/docs/san_lib_docs/WSP-Community%20Led.pdf – Accessed March 2010.

Additional information for the TSC was provided by Sophie Trémolet, Independent Consultant.

3.1.2 SULABH INTERNATIONAL SOCIAL SERVICE ORGANISATION, INDIA

Sulabh International is a social service organisation which promotes human rights, environmental sanitation, non-conventional sources of energy, waste management and social reforms.

Summary table

Goal	To restore human rights and dignity to scavengers by freeing them from the inhuman practice of manually cleaning and carrying human excreta.				
Target group	Children	☒	Individuals	☐	Household ☒
	Community	☒	Schools	☒	Society ☐
How applied to date?	Rural	☒	Urban	☒	Informal-urban ☒
	Pilot	☐	Expanding	☐	At scale ☒
	In one country	☐	In more than one country	☒	
	In more than one region	☐	Worldwide	☐	
Cross-references to PART 2?	Marketing of Sanitation Goods and Services **S2** Public-Private Partnership – see PPPHWS **H2.2**				

Description

The Sulabh approach centres on changing social attitudes toward traditional unsanitary latrine practices in slums, rural villages, and dense urban districts of India. Primarily this entails abolishing the traditional practice of manual "scavenging" of human waste from bucket latrines whilst enabling the former scavengers and their families to acquire education, employment, a decent standard of living and social dignity.

The main Sulabh approach focuses on the promotion, construction and maintenance of pay-and-use public toilets. The toilets are built, operated and maintained by a public-private partnership between Sulabh and a public body (municipality, religious institution or government department). The preferred arrangement is for the two parties to enter into a lease (typically of 30 years) with the public body providing land and funding the cost of construction and all necessary utility connections; they also pay a service charge (20 per cent of project cost) to Sulabh to meet their overheads, monitoring and supervision costs. Sulabh is responsible to operate and maintain the facility using income generated from the user charge. Therefore, the public body bears none of the operating costs.

Sulabh has a flexible approach to user charges, whereby the vulnerable and poor, such as physically handicapped and aged people, and street children, are allowed to use the services without charge.

Typically pay-and-use toilets have been built in busy urban locations (markets, railway stations and bus stations) but Sulabh also promotes community toilets in low-income housing areas to benefit the poor; twin-pit pour-flush toilets for individual households (commonly promoted in rural areas); compost toilets; public toilets connected to biogas digesters for energy production and effluent treatment technology for purification of waste water.

Sulabh has adopted a holistic development approach for the under-privileged and as such its other initiatives include public schools and vocational training for scavengers, a slum welfare programme, empowerment of women through education and employment, a toilet museum, research and development in sanitation, training for NGOs and international consultancy for sanitation. It is currently setting up the Sulabh Sanitation University.

History of approach

Year started	1970	**Year ended (if applicable)**	Ongoing

Origins (who by and where was it invented)	Sulabh was founded by Dr Bindeshwar Pathak in India.
Funding from (name of donor agencies, if applicable)	Sulabh is self-funded.
Countries used in to date	India, Bhutan and Afghanistan.
Experience to date	In the past three decades, Sulabh has made a significant impact in the delivery of sanitation services for the poor in India (Srinivas Chary, 2003). It has been instrumental in the construction of over one million household toilets and more than 7,500 pay-and-use community toilet blocks, 190 human-excreta-based biogas plants and has made 640 towns scavenging-free. The sanitation facilities created by Sulabh are used by over 10 million people (mainly from the poor and low-income sections of society) every day (Sulabh website). Interest in the Sulabh approach has been expressed outside of India, Kothandaraman and Vishwanathan (2007) report that Sulabh has already constructed and is maintaining public toilets in Afghanistan and Bhutan whilst institutions in Ethiopia, Mozambique, Cameroon and Burkina Faso want Sulabh to engage in sanitation work in their respective countries.

Evidence of effectiveness

Published internal evaluations	None
Published external evaluations	Kothandaraman, P. and Vishwanathan, V. (2007). Sulabh International: A Movement to Liberate Scavengers by Implementing a Low-Cost, Safe Sanitation System. Case Study for the Growing Inclusive Markets (GIM) Initiative. United Nations Development Programme, New York, USA. http://www.growinginclusivemarkets.org/images/pdf/english/India_Sulabh%20FINAL.pdf – Accessed March 2010. Srinivas Chary V., Narender, A. and Rajeswara Rao, K. (2003). Pay-and-use toilets in India. Waterlines, Volume 21, No. 3, January 2003. London, UK.
Impacts, outcomes and sustainability	A socio-economic profile of the users of Sulabh pay-and-use toilets in Vijayawada and Hyderabad, Andhra Pradesh by Srinivas Chary et al. (2003) revealed the following: ◗ the majority were from low-earning and marginalised occupations; ◗ the majority of people described the community toilets as easy to access and use and that the toilets were kept clean; ◗ almost everyone agreed that the Rs1 (US$ 0.02) charge per use was affordable. However, the pay-and-use toilets are only viable where there are a lot of people at high densities (Kothandaraman and Vishwanathan, 2007); notably there is no demand or paying capacity for residential toilet blocks in rural India. They also note that the individual household latrine programme has been criticised, for instance research for the World Bank found that 80% of household toilets built in Goa by Sulabh using a government subsidy were not in use.

Evidence of effectiveness

How much does it cost?	Cost of construction is dependent upon the size (number of toilet seats) in the facility. Sulabh costs per toilet block are not known. Kothandaraman and Vishwanathan (2007) report that in the pay-and-use approach, those facilities located in prominent places are highly profitable and they cross-subsidise the loss-making ones.
Human resource requirement?	By 2006, Sulabh employed 50,000 people including several architects, sociologists, and engineers distributed throughout the country (Kothandaraman and Vishwanathan, 2007).
Time required to complete intervention	Most of the pay-and-use toilets run by Sulabh economically break even within eight to nine months (Kothandaraman and Vishwanathan, 2007). However, the time taken from inception of a toilet block project until commissioning is not known.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	Sulabh website. Homepage of Sulabh International Social Service Organisation. http://www.sulabhinternational.org/ Accessed March 2010.
Toolkits or guidebooks	None. However, significant hardware components are described on the Sulabh website.
Further reading	Rastogi, K.R. (2007). A Case Study of Sulabh International Social Service Organisation. FPM II Economics, Indian Institute of Management, Ahmedabad, India. http://www.sulabhinternational.org/downloads/sulabh_case_studies_iim.pdf – Accessed March 2010.

3.2 ETHIOPIA

In Ethiopia, sanitation and hygiene are only recently receiving the attention they deserve. As recently as 2005, the Government of Ethiopia reported that 60% of the disease burden in Ethiopia was attributable to poor sanitation and hygiene with 15% of the total number of deaths from diarrhoea, mainly among the large population of children under five (MoH, 2005). Their statistics also showed that more than 250,000 children were dying each year from sanitation and hygiene related diseases.

In the same report the government highlight that a very low number of households (between 6% and 18%) had access to improved sanitation and that there was not a strong tradition of handwashing with soap (or a substitute) after defecation. Reasons given were a chronic water shortage, a lack of surplus cash to purchase soap and a general lack of awareness about the importance of handwashing.

Sanitation and hygiene have since been identified as essential components of primary health care and have been given their own institutional home within the Ministry of Health (MoH). Subsequently, the MoH has set the national target for sanitation in their Universal Access Plan and aim to achieve 100% coverage by 2012 – thereby exceeding the MDG target of halving, by 2015, the proportion of people without sustainable access to basic sanitation. The WHO/UNICEF-JMP (2008) reports that between 1990 and 2006 in the rural areas access to sanitation rose only 6% to just 8%. A massive rise in the rate of increase of both access to and usage of latrines was clearly needed to bring about improvements in the health of the rural population.

A successful pilot project initiated in 2003 in the Southern Nations Nationalities and People's Region (SNNPR) consequently led to a review of national policy and the development of the National Hygiene and Sanitation Strategy. This is now being rolled out by the regional bureaus of health, for example by the Amhara Regional Bureau of Health through its Learning by Doing project. Both the SNNPR programme and the Learning by Doing project are described below.

REFERENCES:

WHO/UNICEF-JMP (2008). Progress in Drinking-water and Sanitation: special focus on sanitation. UNICEF, New York and WHO, Geneva. http://www.wssinfo.org/en/40_MDG2008.html – Accessed March 2010.

MoH (2005). National Hygiene and Sanitation Strategy. Ministry of Health of the Federal Democratic Republic of Ethiopia and WSP-Africa.

3.2.1 ETHIOPIAN SNNPR

The community health strategy of Southern Nations, Nationalities and People's Regional (SNNPR) Bureau of Health includes both sanitation and hygiene. It aims to reach households through paid health extension workers and volunteer community health promoters who promote latrine construction and use without any form of subsidy.

Summary table

Goal	Promotion of latrine construction and use, handwashing and safe water storage and handling.		
Target group	Children ☐	Individuals ☐	Household ☐
	Community ☒	Schools ☐	Society ☐
How applied to date?	Rural ☒	Urban ☐	Informal-urban ☐
	Pilot ☐	Expanding ☒	At scale ☐
	In one country ☒	In more than one country ☐	
	In more than one region ☐	Worldwide ☐	
Cross-references to PART 2?	Promotes both hygiene and sanitation **H&S** Community-Led Total Sanitation **S1.1**		

Description and experience to date

The Regional Bureau of Health (BoH) in Southern Nations Nationalities and People's Region (SNNPR) has been piloting different approaches since 2003. The BoH describes its approach as a "focus on selected broad-based, high impact, public health programmes" targeted at "a household centred approach" with "a (hardware) subsidy-free approach which promotes use of local materials and appropriate technology". Methodologies promoted by BoH include community dialogue systems, training of voluntary community health promoters, and participatory hygiene promotion approaches (RiPPLE website); the programme thus has strong similarities to the CLTS approach.

The approach was created and is managed by the Regional BoH (working closely with all key stakeholders), using their own funds through a cascading process of advocacy, consensus (and capacity) building, promotion (via paid health extension workers and volunteer community health promoters) and supportive supervision. It puts emphasis on raising awareness of households on sanitation and hygiene and encouraging each household to take responsibility for their actions. Once households are convinced of the importance of sanitation and hygiene facilities, they are encouraged to construct them from locally-available materials. Hardware subsidies are not provided. Households start from traditional pit latrines and, subsequently, upgrade their standard as awareness grows and opportunity allows.

The SNNPR strategy has informed the development of the Government of Ethiopia's national hygiene and sanitation strategy which is now being implemented throughout Ethiopia, see MoH (2005) and MoH (2006).

History of approach

Year started	2003	**Year ended (if applicable)**	Ongoing
Origins (who by and where was it invented)	Government of Ethiopia. Ethiopia		
Funding from (name of donor agencies, if applicable)	Initial support from Department for International Development. Now also working with UNICEF, the African Development Bank, the European Union, the Water and Sanitation Program-Africa and the World Bank.		
Countries used in to date	Ethiopia		
Experience to date	Alongside other gains in public health, pit latrine ownership rose from under 16% in 2002 to over 78% in 2005, and a year later, 90%. The BoH is now working to empower households to upgrade traditional pits with permanent platforms and shelters, and to improve overall domestic hygiene (Bibby and Knapp, 2007).		

Evidence of effectiveness

Published internal evaluations	Moriarty, P., Jeths, M., Abebe, H. and Deneke, I. (2009). Reaching Universal Access: Ethiopia's Universal Access Plan in the Southern Nations, Nationalities, and People's Region (SNNPR). A synthesis paper of recent research under the RiPPLE Programme's Governance and Planning theme. RiPPLE, Addis Ababa, Ethiopia. http://www.research4development.info/PDF/Outputs/RIPPLE/gap-synthesis-paper.pdf – Accessed March 2010. Terefe, B. and Welle, K. (2008). Policy and Institutional Factors affecting formulation and implementation of Sanitation & Hygiene strategy: a case study from SNNPR', RiPPLE Working Paper no. 1. RiPPLE, Addis Ababa, Ethiopia. http://www.rippleethiopia.org/documents/stream/20080829-wp1-policy-issues-in-sanitation – Accessed March 2010. Tefera, W. (2008). Technical issues of Sanitation and Hygiene in Mirab Abaya and Alaba: A case study report from the Southern Nations Region ('SNNPR') of Ethiopia', RiPPLE Working Paper 2, Addis Ababa: Research- inspired Policy & Practice Learning in Ethiopia and the Nile Region. RiPPLE, Addis Ababa, Ethiopia. http://www.rippleethiopia.org/documents/info/20080704-wp2-technical-issues-of-s-h – Accessed March 2010.
Published external evaluations	Newborne, P. and Smet, J. (2008). Promoting sanitation and hygiene to rural households: the experience of the Southern Nations region, Ethiopia, RiPPLE, Addis Ababa, Ethiopia. http://www.rippleethiopia.org/documents/stream/20081208-synthesis-sanitation-hygiene – Accessed March 2010.
Impacts, outcomes and sustainability	Tefera (2008) notes that the SNNPR BoH post-2003 policy on sanitation and hygiene was very successful in increasing latrine coverage (16% in 2002 to 90% in 2006). Similarly, Terefe (2008) reports that the promotion through health front-line workers – health extension workers and community health promoters – was effective for outreach to households including providing technical support. Researchers evaluating the approach noted that after the project: ◗ The proportion of households having latrines had increased by a factor of eight; ◗ There was less acceptance of open defecation; ◗ There was better knowledge on handwashing, although actual practice remained poor; ◗ There were handwashing facilities in 82 percent of households, but only 6 percent were near the household latrine and few people used soap or detergents; ◗ Water storage and handling practices also remained poor; and ◗ Men mostly decided latrine design, siting and construction, although women were involved in providing materials and plastering (Newborne and Smet, 2008).

Evidence of effectiveness

How much does it cost?	Insufficient data.
Human resource requirement?	Insufficient data.
Time required to complete intervention	Insufficient data.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	RiPPLE website: http://www.rippleethiopia.org/page/home-page – Accessed March 2010. id21 website (University of Sussex): http://www.id21.org/rural/r4pn1g2.html Accessed March 2010. Sanitation updates website: http://sanitationupdates.wordpress.com/2009/04/15/sanitation-promotion-experiences-from-government-led-initiative-in-southern-ethiopia/ Accessed March 2010.
Toolkits or guidebooks	None
Further reading	Bibby, S. and Knapp, A. (2007). From Burden to Communal Responsibility; A Sanitation Success Story from Southern Region in Ethiopia. WSP Africa. http://www.wsp.org/UserFiles/file/2122007111721_From_Burden_to_Communal_Responsibility-Ethiopa.pdf – Accessed March 2010. MoH (2005). National Hygiene and Sanitation Strategy. Ministry of Health, Federal Democratic Republic of Ethiopia and WSP-Africa. MoH (2006). National Hygiene and "On-Site" Sanitation Protocol. Ministry of Health, Federal Democratic Republic of Ethiopia and WSP-Africa.

3.2.2 LEARNING BY DOING: AT SCALE HYGIENE AND SANITATION IMPROVEMENT, AMHARA

The Learning by Doing approach is being used by the Water and Sanitation Program (WSP) and USAID Hygiene Improvement Project (HIP) to support the Bureau of Health of the Amhara Region to increase sanitation coverage in the region to meet national hygiene and sanitation goals for universal sanitation.

Summary table

Goal	Increase sanitation coverage.		
Target group	Children ☐	Individuals ☐	Household ☐
	Community ☒	Schools ☐	Society ☐
How applied to date?	Rural ☒	Urban ☐	Informal-urban ☐
	Pilot ☐	Expanding ☒	At scale ☐
	In one country ☒	In more than one country ☐	
	In more than one region ☐	Worldwide ☐	
Cross-references to PART 2?	Promotes both hygiene and sanitation **H&S** Community-Led Total Sanitation **S1.1** Hygiene Improvement Framework **F4**		

Description

The At Scale Hygiene and Sanitation Improvement approach is currently being implemented by the Amhara Regional State Bureau of Health (BoH), with support from the Water and Sanitation Program-Africa (WSP-AF) and the USAID Hygiene Improvement Project (USAID/HIP). The approach, developed from the successful pilot project in SNNPR, has been incorporated by the Amhara BoH into its own health strategy to serve the 20 million people of Amhara. WSP and USAID provide capacity building support in the form of appropriate training that 'cascades down' from the senior government officers at regional level to the 5,000 plus hygiene extension workers assigned to "ignite" their communities to end open defecation at the kebele or village level. In this way Amhara is 'Learning by Doing'.

The Amhara BOH has created a "hybrid" approach that combines best practices and lessons learned from initiatives throughout the world and then customised them to fit the Ethiopian system and context. The at-scale process involves a series of steps to realise the goals of the national strategy and universal access, including mapping the context, catalysing partnerships, developing strategic solutions and implementing them, and monitoring and evaluation. Utilising what is known as the Whole System in the Room method; the wide range of concerned stakeholders in each area are encouraged to participate and develop a common action agenda and a coordinated plan (USAID/HIP, 2009).

Handwashing and sanitation behaviour change is reinforced by applying an approach that combines innovative community and household level action. It includes "mikikir", an approach for negotiating improved household hygiene behaviours through outreach efforts of the national health extension workers and community mobilisation using tools from community-led total sanitation. Handwashing and hygiene have been explicitly promoted in all sanitation activities, encouraging the establishment of handwashing stations and use of water saving devices to overcome barriers to handwashing.

History of approach

Year started	2006 **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	Amhara National Regional State Health Bureau with support from USAID/HIP and WSP Africa. Amhara region, Ethiopia.
Funding from (name of donor agencies, if applicable)	USAID and WSP Africa.
Countries used in to date	Ethiopia
Experience to date	To date nearly 1.2 million households have received messages about the importance of hygiene and sanitation and almost 600,000 have been certified "clean and healthy" (using a latrine with a handwashing station, such as a tippy tap) (USAID/Cross cutting issues website).

Evidence of effectiveness

Published internal evaluations	None
Published external evaluations	None
Impacts, outcomes and sustainability	As of April 2009 an estimated 600,000 people had already reached the goal of no open defecation and total hygiene behaviour change (USAID/HIP, 2009).
How much does it cost?	Insufficient data.
Human resource requirement?	Insufficient data.
Time required to complete intervention	Insufficient data.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	USAID/Hygiene Improvement Project (HIP) website (2009) at http://www.hip.watsan.net/ Accessed March 2010. USAID/Cross cutting issues website, available at: http://www.usaid.gov/our_work/cross-cutting_programs/water/projects/ethiopia_wash.html – Accessed March 2010. USAID/HIP (2009). Amhara Case Study, Learning by Doing: Working toward At-Scale Hygiene and Sanitation Improvement in Amhara. USAID, Addis Ababa, Ethiopia. http://www.hip.watsan.net/page/3093 – Accessed March 2010.
Toolkits or guidebooks	ANRSHB (2007). Woreda Resource Book, Community-Led Total Behavior Change in Hygiene and Sanitation The Amhara Experience in Line with the Health Extension Program. Amhara National Regional State Health Bureau and WSP-Africa and USAID/HIP, Bahir Dar, Ethiopia. http://www.wsp.org/UserFiles/file/Amhara_Woreda_Community_Led_Sanitation_Hygiene.pdf – Accessed March 2010. ANRSHB (2008). Training Manual: Preparing for Community-Led Total Behavior Change in Hygiene and Sanitation (A Facilitators Guide and Participant Source Book). Amhara National Regional State Bureau of Health, WSP-Africa and USAID/HIP, Bahir Dar, Ethiopia.
Further reading	None

Additional information was provided by Merri Weinger of USAID.

3.3 BANGLADESH

Bangladesh is a small, flood-prone country[1] with one of the highest population densities in the world. This creates fierce competition for the limited land that is suitable for habitation and cultivation. In its favour, Bangladesh has a thriving non-government sector, with non-governmental organisations (NGOs) reaching about 75% of rural settlements, and devising innovative and widely-copied approaches to development.

Bangladesh has been at the forefront of recent sanitation developments in South Asia. In 2003, the Government of Bangladesh (GoB) hosted the first South Asian Conference on Sanitation (SACOSAN), with international recognition of the new approaches to sanitation provision developed by NGOs in Bangladesh. The GoB is committed to achieving the MDG targets and has emphasised improving sanitation as a national priority. Following SACOSAN, the GoB set its own national target which is to achieve 100% sanitation by 2010 (Government of Bangladesh, 2005). This challenging target is 15 years ahead of the MDG target.

Statistics do indeed show that in the last few years Bangladesh has witnessed a most remarkable change in sanitation coverage. In late 2003, the Government estimated sanitation coverage to be 29% and 60% in rural and urban areas respectively. By the end of 2008, these figures had shot up to 88% for both urban and rural areas (Government of Bangladesh, 2008)[2], it is estimated that more than 90 million people have gained access to sanitation within the household in the last five years.

However, whilst open defecation has been reduced to a great degree in Bangladesh sustainability remains a major challenge. In a flood-prone and poverty-stricken country like Bangladesh, permanently eradicating open defecation does not stop at constructing a sanitation latrine and requires its proper use and maintenance.

The two programmes described in this section, DISHARI and the BRAC WASH Programme are two of the largest programmes in Bangladesh and have been influential in achieving the progress made so far.

1. It is generally regarded as one of the countries that is currently, and will in the future be, most vulnerable to climate change (World Bank, 2010).
2. These figures are not universally accepted. They are compiled by the Bangladesh National Sanitation Secretariat based on self-reporting by field staff and local government and with no independent verification. They define a "hygienic" latrine as one that breaks the disease transmission route. This, coupled with the fact that there is a monetary reward for achievement, has rendered the official numbers somewhat vulnerable to inflation. Although data from the Joint Monitoring Programme (WHO/UNICEF – JMP, 2008) were originally showing much lower figures (with improved sanitation coverage at about 30% in 2008), these data have subsequently been revised and appear to be much closer to the Government's figures (Trémolet et al., 2009).

USEFUL REFERENCES:

Government of Bangladesh (2008). Bangladesh Country Paper, Sanitation in Bangladesh. Prepared for SACOSAN III in New Delhi, India. Dhaka, Bangladesh.

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WHO/UNICEF-JMP (2008). Progress in Drinking-water and Sanitation: special focus on sanitation. UNICEF, New York and WHO, Geneva. http://www.wssinfo.org/en/40_MDG2008.html – Accessed March 2010.

IRC (2008). Bangladesh: rural sanitation coverage up to 88 per cent, government says, from http://www.irc.nl/page/43684 – Accessed March 2010.

Government of Bangladesh (2005). National Sanitation Strategy, Government of Bangladesh, Bangladesh. http://www.sanitation-bd.org/mr11_sanitation_country_strategy.php Accessed March 2010.

Heierli, U. and Frias, J. (2007). One fly is deadlier than a hundred tigers: total sanitation as a business and community action in Bangladesh and elsewhere. SDC, WSSCC, WSP. Berne, Switzerland. http://www.poverty.ch/sanitation.html Accessed March 2010.

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3.3.1 BRAC WASH PROGRAMME, BANGLADESH

The Government-of-Netherlands-supported BRAC WASH initiative is a scaled up programme to bring sustainable water and sanitation to over 37 million people in Bangladesh.

Summary table

Goal	To achieve, in partnership with the Government of Bangladesh, the MDGs and national objectives related to water, sanitation and hygiene.		
Target group	Children ☐	Individuals ☐	Household ☒
	Community ☒	Schools ☐	Society ☐
How applied to date?	Rural ☒	Urban ☐	Informal-urban ☐
	Pilot ☐	Expanding ☐	At scale ☒
	In one country ☒	In more than one country ☐	
	In more than one region ☐	Worldwide ☐	
Cross-references to PART 2?	Participatory, Community Based Total Hygiene **H1** WASH for Schools **H1.4** Public-Private Partnerships – see PPPHWS **H2.2** Household Water Treatment and Safe Storage **H2.3**		

Description and experience to date

BRAC is based in Dhaka, Bangladesh and in terms of its budget, its staff and the number of people it reaches it is the biggest non-governmental, non-profit organisation in the world (BRAC website, 2009). Through its WASH programme, BRAC supports extending access to safe, reliable and sustainable drinking water and sanitation for 50 million poor people. It aims to initiate a holistic approach incorporating hygiene promotion and education to 37.5 million people, ensuring access to sanitation services to 17.6 million people, and providing safe water services for 8.5 million people; and endeavours to ensure proper maintenance and management of the existing water supplies by the community. Fulfilling BRAC's commitment to the poor, the programme incorporates sustainable and appropriate services to the poor and hardcore poor, and particularly to women (Kabir et al., 2008).

The approach is very people-focused and based upon carrying out a census of the existing situation and an intensively supported hygiene education programme to encourage lasting behaviour change.

The objectives are to:

- Provide sustainable and integrated WASH services;
- Induce safe hygiene behaviour to break the contamination cycle of unsanitary latrines, contaminated water, and unsafe hygiene behaviour; and
- Ensure sustainability of and scaling-up of WASH services.

Description and experience to date

The WASH programme is divided into three parts, or 'phases'. Each phase consists of 50 sub-districts. Within each phase are three stages of work activities where hygiene education, sanitation and water aspects are addressed respectively. The WASH programme has five major components:

- **Water** (renovation of existing/traditional water sources, small piped water supply schemes by bore holes/ surface water, capacity development, innovation and technological options; target coverage: 8.5 million).
- **Sanitation** (installation and maintenance, micro-enterprise development, revolving fund for poor, subsidy for hardcore poor, capacity building; target coverage: 17.6 million).
- **Hygiene practice** (behaviour change communication, advocacy, handwashing, social marketing, formative research; target coverage: 37.5 million).
- **School sanitation and hygiene education** (hygiene promotion and education, installation and maintenance of tubewell/latrine, separate latrines for girls, school compound cleaning and disposal of solid waste).
- **Public-Private Partnership** (partnership with soap companies, local sanitation entrepreneurs, Local Government Institutions (LGIs), Department of Public Health Engineering (DPHE) and other stakeholders such as the Watsan committee, Rural Electrification Board, Power Development Board and an advisory committee comprised of relevant specialised organisations.

BRAC's approach is to use field extension workers, trained community mobilisers and Village WASH Committees to facilitate these developments. While accomplishing WASH activities, BRAC coordinates with influential stakeholders and community leaders, religious leaders, and union members in the local context to influence and motivate towards WASH activity.

History of approach

Year started	2006 **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	BRAC in partnership with Government of Bangladesh. Bangladesh
Funding from (name of donor agencies, if applicable)	Government of Netherlands.
Countries used in to date	Bangladesh
Experience to date	By the end of 2007 the third phase of the project had successfully expanded to cover all 150 sub-districts, 247,229 latrines had been installed and 11,358 latrines re-installed. At the school level, 32 separate latrines for boys and girls with waste disposal facilities had been constructed (BRAC website, 2009). Kabir et al., (2010a) report that by October 2009 nearly 40,000 Village WASH Committees had been established to "stimulate bottom-up participation and planning".

Evidence of effectiveness

Published internal evaluations	Ahmed, S., Rahman, H., Rashid, M. U., Hasan, B. (2008). Understanding the Relationship between Government and BRAC in Implementing WASH Programme. Working Paper No. 2. Research and Evaluation Division of BRAC, Dhaka, Bangladesh. http://www.bracresearch.org/workingpapers/REDWP_2.pdf Accessed March 2010.
Published external evaluations	None

Evidence of effectiveness

Impacts, outcomes and sustainability	Whilst acknowledging that progress has been made, the relationship between BRAC staff and government officers is key to its success. In some sub-districts relations are poor and this has led to correspondingly low levels of hygiene and sanitation improvement (Ahmed et al. 2008).
How much does it cost?	Insufficient data.
Human resource requirement?	The programme currently has a staff of 5,360 with 32 staff members assigned to each sub-district (Upazila).
Time required to complete intervention	Initial WASH activities are held over four days. Village WASH Committees are then formed for a period of two years during which the main activities occur.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	BRAC website: http://www.brac.net/index.php?nid=160 – Accessed March 2010. Kabir, B., Huq, T.A., Karim, R. and Rahman, M. (2008). BRAC WASH programme. Chapter 12 of Beyond Construction, Use by All. WaterAid, UK and IRC, Netherlands. http://www.wateraid.org/documents/ch12_brac_wash_programme.pdf – Accessed March 2010.
Toolkits or guidebooks	None
Further reading	BRAC background and history in Wikipedia: http://en.wikipedia.org/wiki/BRAC_%28NGO%29 – Accessed March 2010. Kabir, B., Barua, M., Karim, R., Bodiuzzaman, Mhd., Rahman, M. and Hasan Ali Mia, Mhd. (2010a). Contributions of Village WASH Committee in breaking the cycle of unhygienic behaviours in rural Bangladesh. Paper prepared for South Asia Hygiene Practitioners Workshop, Dhaka Bangladesh, February 2010. WaterAid, WSSCC, IRC and BRAC. http://www.irc.nl/page/51610 – Accessed March 2010. Kabir, B., Ubaid, S. F., Ahmed, M., Islam, M., Rahman, M. and Hasan Ali Mia, Md. (2010b)(2). The Role of Imams and different Institution in Hygiene Promotion of BRAC WASH Programme. Paper prepared for South Asia Hygiene Practitioners Workshop, Dhaka Bangladesh, February 2010. WaterAid, WSSCC, IRC and BRAC. http://www.irc.nl/page/51612 – Accessed March 2010.

3.3.2 DECENTRALIZED TOTAL SANITATION FOR SUSTAINABLE DEVELOPMENT (DISHARI), BANGLADESH

This project's objective is to scale up the Community-Led Total Sanitation approach (CLTS) in Bangladesh, emphasising community mobilisation for the eradication of open defecation.

Summary table

Goal	To improve the quality of life of people living in poverty in terms of access to sanitation by increasing the capacity of local government institutions to plan and implement development interventions.		
Target group	Children ☐	Individuals ☐	Household ☐
	Community ☒	Schools ☐	Society ☐
How applied to date?	Rural ☒	Urban ☐	Informal-urban ☐
	Pilot ☐	Expanding ☐	At scale ☒
	In one country ☒	In more than one country ☐	
	In more than one region ☐	Worldwide ☐	
Cross-references to PART 2?	Community-Led Total Sanitation **S1.1**		

Description

The project was designed based on the observation that CLTS had been implemented by NGOs via pilot projects with little potential for scaling-up. Involving local government institutions was seen as a good way to strengthen the approach's scalability and sustainability as they are permanent institutions covering the whole country whilst NGOs may be temporary and exclude certain districts.

Therefore, the main aim of the DISHARI project is to build the capacity of local governments to enable them to take the leadership for promoting CLTS. The project focuses on the sub-district level of local government, known as the Upazila level and next tier down, the Union level – the lowest administrative unit in the rural areas of Bangladesh.

Actual promotional activities and community capacity building take place at the village and hamlet level. These include CLTS activities, such as social mapping, faeces counting and the walk of shame (**see S1.1** for further details of CLTS) (DAM, 2009).

The Government provides monetary rewards to Union Parishads and Upazilas which reach ODF status (about US$2,900 per union and US$7,250 per Upazila). These rewards come with no strings attached and can be spent on any type of local development project. Combined with the prestige they bestow and other non-monetary benefits, these rewards have served as a strong motivator for local leaders and have introduced a competitive drive between villages to improve access to sanitation (Trémolet, 2009).

The Government also provides an in-kind up-front hardware subsidy (equivalent to about US$7 per subsidised household) to 'very poor' households; this comprises construction materials to households on the basis of strict criteria (households with an estimated income of less than US$290 per household per year) and community meetings. Trémolet (2009) reports that about 7% of households in the project area have benefited from this subsidy, which covers approximately 42% of their hardware costs.

History of approach

Year started	2004 **Year ended (if applicable)** Ongoing
Origins (who by and where was it invented)	The Dhaka Ahsania Mission. Bangladesh
Funding from (name of donor agencies, if applicable)	Water and Sanitation Program, WaterAid and PLAN.
Countries used in to date	Bangladesh
Experience to date	The DISHARI Project has been working in five districts in Bangladesh and has contributed to sanitation adoption by 1.6 million people over the course of four years (Trémolet et al., 2009).

Evidence of effectiveness

Published internal evaluations	Howes, M. and Huda, E. (2008). Community-led Total Sanitation and its successors in Bangladesh. Case Study 2 DISHARI. Institute of Development Studies, University of Sussex, UK. http://www.communityledtotalsanitation.org/resource/community-led-total-sanitation-and-its-successors-bangladesh-3-case-studies – Accessed March 2010.
Published external evaluations	Trémolet, S., Perez, E. and Kolsky, P. (2009). Financing Household Sanitation for the Poor: A Global Six Country Comparative Review and Analysis. WSP, Washington DC, USA.
Impacts, outcomes and sustainability	The DISHARI project has triggered a substantial increase in access to sanitation. In just under 4.5 years, 362,385 new hygienic latrines were installed in the project area resulting in more than 90% households in the project area gaining access to hygienic latrines by late 2008. In addition, it has been shown that over 80% of the latrines built demonstrate physical evidence of maintenance. The high degree of ownership is a good indication of sustainability. However, one major concern is the sustainability of physical results, as there is no ongoing monitoring of results once villages have been declared ODF (Trémolet et al., 2009). There is also concern that government officers have used the threat of fines and other negative incentives in order to apply pressure on Union Parishads and Upazilas to reach ODF status. This clearly contradicts key CLTS principles and also overshadows other notable development achievements of DISHARI and CLTS in general (Howes and Huda, 2008 and Bongartz and Monik, 2008).
How much does it cost?	The project has spent approximately US$7 per household on software support (Trémolet et al., 2009).
Human resource requirement?	Insufficient data.
Time required to complete intervention	Insufficient data.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	DAM (2009). Dhaka Ahsania Mission website; available at http://www.ahsaniamission.org.bd/news_dtls.asp?NID=205 – Accessed March 2010.
Toolkits or guidebooks	None
Further reading	Bongartz, P. and Monik, S. (2008). Report on IDS Conference on Community-led Total Sanitation, IDS, University of Sussex, 16th – 18th December, 2008. Brighton, UK. http://www.communityledtotalsanitation.org/page/clts-approach – Accessed March 2010.

3.4 BENIN

The Republic of Benin is a small country in West Africa with a population of 8.5 million. Water supply and sanitation in Benin has been subject to considerable progress since the 1990s and service coverage is higher than in many other African countries; the WHO/UNICEF-JMP (2008) states that improved sanitation coverage has risen from 12% in 1990 to 30% in 2006. In the rural areas the coverage is still relatively low – in 2006 11% of the population had an improved latrine (up from just 2% in 1990) – but encouragingly the Government of Benin has adopted a national strategy to address the problem.

Their demand-responsive strategy for rural water supply and sanitation was initiated in 1992 and implemented with the help of external development partners in several departments[1] under the Assistance Program for the Development of the Water supply and Sanitation Sector in Rural areas (PADEAR). Under PADEAR, the government began testing a new approach to rural sanitation promotion utilising social marketing to motivate household demand coupled with sanitation delivery by small-scale private sector providers (local masons) via the market.

Since 2005 the Government of Benin has been implementing its own 'scaled-up' version of the PADEAR project in five departments. The National Rural Sanitation and Hygiene Promotion Program (PHA) is described further below.

1. Benin is divided into 12 administrative departments.

REFERENCE:

WHO/UNICEF-JMP (2008). Progress in Drinking-water and Sanitation: special focus on sanitation. UNICEF, New York and WHO, Geneva. http://www.wssinfo.org/en/40_MDG2008.html – Accessed March 2010.

3.4.1 NATIONAL RURAL SANITATION AND HYGIENE PROMOTION PROGRAMME (PHA), BENIN

The National Government of Benin's programme emerged from the PADEAR Project implemented in the mid-1990s. The programme combines two approaches — the sanitation marketing approach to create demand for sanitation and a "PHAST-like" participatory approach to enable hygiene behaviour changes.

Summary table

Goal	Enable hygiene behaviour change, create demand for sanitation and facilitate establishment of supply chains.		
Target group	Children ☐	Individuals ☐	Household ☒
	Community ☒	Schools ☐	Society ☐
How applied to date?	Rural ☒	Urban ☐	Informal-urban ☐
	Pilot ☐	Expanding ☐	At scale ☒
	In one country ☒	In more than one country ☐	
	In more than one region ☐	Worldwide ☐	
Cross-references to PART 2?	Promotes both hygiene and sanitation **H&S** PHAST **H1.1** Sanitation Marketing **S2**		

Description

Benin's national rural sanitation marketing and hygiene promotion programme (hereafter referred to as PHA from its full French title *Promotion de l'hygiene et de l'assainissement* (translated as Hygiene and Basic Sanitation Promotion) is operated by the Directorate for Hygiene and Basic Sanitation (DHAB) within the Ministry of Health.

The programme combines sanitation marketing strategies to increase household investment in improved latrines with hygiene behaviour change focused on three outcomes: latrine usage, cleaning, and maintenance; handwashing with soap after defecation; safe drinking water use and storage.

PHA is a highly structured and tested approach in which government outreach workers engage communities and train and supervise community volunteers to conduct a sequence of promotional and educational activities within their community. Social marketing messages, consumer technology education and technical support are used to create demand for sanitation while streamlined PHAST-like participatory tools are used to address hygiene education and behaviour changes. No hardware subsidies are used in the programme.

Door-to-door household visits are the core communication channel, supported by limited community mobilisation. Supply-side strategies expand local market access to a range of low cost improved latrine options and precede launch of promotion in new target areas. Community monitoring of progress, effective field staff, and close supervision of field activities are key elements of success (Jenkins et al., 2009).

History of approach

Year started	1995	**Year ended (if applicable)**	Ongoing
Origins (who by and where was it invented)	Based on the PADEAR project (Assistance Program for the Development of the Water supply and Sanitation sector in Rural areas) which was originally funded and devised by DANIDA, GTZ and KfW. Benin		
Funding from (name of donor agencies, if applicable)	Funded by the Government of Benin with substantial support from Danish, Dutch and German donor investments as well as from WSP.		

History of approach

Countries used in to date	Burkina Faso
Experience to date	Between 2005 and 2007, the PHA programme reached approximately 10% of the rural population (372,000 people) in five Departments with a 10 percentage point increase in improved latrine coverage. A total of 7,148 unsubsidised improved family latrines had been built by the end of 2007 (Scott et al., 2009).

Evidence of effectiveness

Published internal evaluations	Jenkins, M (2009). Presentation on Financing Change in Personal Hygiene Behaviour and Demand Creation for Sanitation. Session 1. Presented at the KfW Water Symposium 2009 "Financing Sanitation",http://www.kfw-entwicklungsbank.de/EN_Home/Sectors/Water/Events/session_1_-_Jenkins.pdf – Accessed March 2010. Jenkins, M., Pfeiffer, V. and Etienne, J. (2009). Financing Change in Personal Hygiene Behaviour and Demand Creation for Sanitation. Session 1. Paper prepared for the KfW Water Symposium 2009 "Financing Sanitation", October 8 and 9, Frankfurt, Germany. Accessed October 2009. Jenkins, M.W. and Kpinsoton, G. (2008). Benin PHA National Rural Sanitation Component 2005-2007: Preliminary Assessment of Progress through December 2007. Technical Report. Sanitation Marketing Analytical Support Contract 7140303, Water and Sanitation Program- Africa Region, The World Bank. Prepared for the London School of Hygiene and Tropical Medicine and GOB DHAB. June 15 2008.
Published external evaluations	None
Impacts, outcomes and sustainability	In general, the national government has successfully implemented the programme across the nation with "good monitoring and good supervision" (Jenkins, 2009). Jenkins and Kpinsoton (2008) found that the PHA programme has replicated at a national scale, the high levels of uptake achieved during pilot scale testing. However, there are regional differences and uptake has been slower in some Departments. An investigation of the causes of these variations is an area for further research. However, Jenkins and Kpinsoton also identify that to date no data is available that indicates the level of hygiene behaviour change that has occurred and highlights the dangers of addressing so many hygiene behaviour changes at once. Other challenges include the slow implementation time (18 months per village), the relatively high cost (although no data is provided), cement supply-chain constraints and uncertainty as to whether the changes will be sustained over time (ibid).
How much does it cost?	Insufficient data.
Human resource requirement?	Insufficient data.
Time required to complete intervention	18 months per village.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	Scott, B., Jenkins, M. and Kpinsoton, G. (forthcoming). Sanitation Marketing the Beninese Way: An African Success Story in the Making. The Recent History of Sanitation Marketing at Scale in Rural Benin. WSP Field Note. WSP-Africa.
Toolkits or guidebooks	None
Further reading	Jenkins, M. and Cairncross, S. (2010). Modelling Latrine Diffusion in Benin: towards a community typology of demand for improved sanitation in developing countries. Journal of Water Health, 2010 Mar;8(1):166-83.

3.5 GLOBAL PROGRAMMES

3.5.1 GLOBAL SCALING UP SANITATION PROJECT (GSUSP)

This is a large-scale project to meet the basic sanitation needs of the rural poor who do not currently have access to safe and hygienic sanitation. It builds on two groups of approaches described elsewhere in this document, namely community-wide approaches (group S1) and marketing of sanitation goods and services (group S2). It is also sometimes referred to as the Total Sanitation and Sanitation Marketing (TSSM) project.

Summary table

Goal	To learn about scaling up effective and efficient sanitation interventions that improve health.		
Target group	Children ☐	Individuals ☒	Household ☒
	Community ☒	Schools ☐	Society ☐
How applied to date?	Rural ☒	Urban ☐	Informal-urban ☐
	Pilot ☒	Expanding ☐	At scale ☒
	In one country ☐	In more than one country ☐	
	In more than one region ☒	Worldwide ☐	
Cross-references to PART 2?	Community-wide Approaches **S1** Marketing of Sanitation Goods and Services **S2** FOAM and SaniFOAM **F5**		

Description

With funding from the Bill and Melinda Gates Foundation, the Water and Sanitation Program is supporting government counterparts to implement this five-year project (2006-2011).

The project has the primary goal of learning about scaling up effective and efficient sanitation interventions that improve health. It is doing this by testing at-scale an approach that draws upon two groups of approaches described elsewhere in this document *community-wide approaches* (group S1) and *sanitation marketing* (group S2). The approach stimulates demand via community mobilisation (using CLTS techniques) and targeted individual interventions (using sanitation marketing) and then strengthens supply to satisfy the demand (again using sanitation marketing). The goal is for entire communities to improve their sanitation, not only individual households.

In short, the first group of approaches is intended to get people 'on to' the sanitation ladder; while the second group intends to sustain the demand and make people 'climb up' the ladder; the use of these two approaches in combination has been titled Total Sanitation and Sanitation Marketing approach (TSSM) by the WSP (WSP, 2009).

In addition, the programming framework SaniFOAM is being utilised in the project to help programme managers and implementers understand and analyse the various sanitation behaviours, **see approach F5 FOAM and SaniFOAM in PART 2**.

The project is being implemented in rural villages and small towns in Indonesia, Tanzania, and two states in India; aiming to reach an average of 1 million people in each location.

In summary, the project has the following objectives:

- To create large-scale, sustainable, and effective demand for sanitation and hygiene at the household and community level in the four selected project sites.

Description

- To create large-scale, sustainable, and effective supply of sanitation and hygiene services and products that are appropriate for and affordable to the poorest families in the four selected project sites.
- To support the expansion of sanitation coverage in each of the four countries/states.
- To identify the most practical and effective approaches to scaling up and sustaining sanitation programmes so that they can be replicated in other countries and regions to meet the 2015 MDG targets.

History of approach

Year started	2006	**Year ended (if applicable)**	Ongoing until 2011
Origins (who by and where was it invented)	Water and Sanitation Program (WSP). Currently being pilot tested at-scale in three countries, see below.		
Funding from (name of donor agencies, if applicable)	The Bill and Melinda Gates Foundation.		
Countries used in to date	Indonesia, Tanzania, and two states in India (Himachal Pradesh and Madhya Pradesh).		
Experience to date	To date enabling environment assessments have been done in the four project sites (WSP, 2009). The results are being used to better understand the programmatic and institutional conditions, prioritise and address critical gaps, and strengthen the enabling environment. The assessments will be repeated after three years of project implementation to measure progress and to learn about what works in scaling up and sustaining sanitation programmes. Impact evaluations are currently under preparation which will collect a broad range of indicators to allow an intensive study of the approach's developmental, social, and economic welfare impacts.		

Perceived strengths and weaknesses

Strengths	Not yet available.
Weaknesses	Not yet available.

Evidence of effectiveness

Published internal evaluations	Mukherjee, N. (2009). Learning At Scale: Total Sanitation and Sanitation Marketing Project: Indonesia Country Update June 2009. Field Note. WSP-EAP, Jakarta, Indonesia. http://www.wsp.org/UserFiles/file/learning_at_scale.pdf – Accessed March 2010.
Published external evaluations	None
Impacts, outcomes and sustainability	Mukherjee (2009) reports the following results from Indonesia after 18 months of intervention: - A 49% increase in access to improved sanitation over baseline access (as of June 2009); - Over 325,600 additional people have gained access to improved sanitation; - The poorest households are gaining access at rates higher than non-poor households; and - 715 communities declared open defecation free, as defined and verified by local governments (as of May 2009). The project is working in partnership with the national government and local governments of East Java's 29 districts and is operationalising the Government of Indonesia's new National Strategy for Community-based Total Sanitation.

Evidence of effectiveness

How much does it cost?	In the 21 districts covered in the first 18 months of interventions US$1.76 million worth of TSSM project assistance has leveraged more than US$1.69 million of community investment for household sanitation improvement (Mukherjee, 2009).
Human resource requirement?	Insufficient data.
Time required to complete intervention	This is not defined but the results reported from interventions in Indonesia were achieved in 18 months.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	The WSP website Global Scaling Up Sanitation, available at http://www.wsp.org/index.cfm?page=page_disp&pid=1585 – Accessed March 2010. WSP (2009). Market Research Assessment in Rural Tanzania for New Approaches to Stimulate and Scale up Sanitation Demand and Supply. Water and Sanitation Program-The World Bank, Washington DC, USA. http://www.wsp.org/UserFiles/file/TZ_TSSM_Research_Report.pdf – Accessed March 2010.
Toolkits or guidebooks	WSP (2007a). Training of Trainers' Manual on Community-driven Total Sanitation. Module 1: Guidance Notes. WSP Washington DC, USA http://www.wsp.org/UserFiles/file/Guidance_Book_24Jun08.pdf – Accessed March 2010. WSP (2007b). Training of Trainers' Manual on Community-driven Total Sanitation. Module 2: Trainers' Notes. WSP Washington DC, USA http://www.wsp.org/UserFiles/file/Training_Manual_24Jun08.pdf – Accessed March 2010.
Further reading	Rosensweig, F. (2008). Synthesis of Four Country Enabling Environment Assessments for Scaling Up Sanitation Programs. From WSP's Scaling Up Sanitation Project funded by the Bill and Melinda Gates Foundation. WSP, Washington DC, USA. http://www.wsp.org/UserFiles/file/sansynthesis.pdf – Accessed March 2010. WSP (2008). Developing a Sanitation Behavior Change Framework: SaniFOAM. Workshop Report February 21-22, 2008. WSP, Washington DC, USA. Durban, South Africa. http://www.wsp.org/UserFiles/file/SaniFOAM_Report409_3.pdf – Accessed March 2010. Godfrey, A. (2008). Situation Assessment of the Supply Market for Rural Sanitation in Himachal Pradesh and Madhya Pradesh. From WSP's Scaling Up Sanitation Project funded by the Bill and Melinda Gates Foundation. WSP, Washington DC, USA. http://www.wsp.org/UserFiles/file/Indiasanitationmarketing.pdf – Accessed March 2010. Frias, J (2008). Opportunities to Improve Sanitation: Situation Assessment of Sanitation in Rural East Java, Indonesia. From WSP's Scaling Up Sanitation Project funded by the Bill and Melinda Gates Foundation. WSP, Washington DC, USA. http://www.wsp.org/UserFiles/file/sanitation_east_java.pdf – Accessed March 2010. Mukherjee, N (2008). Presentation: Lessons from a Global Initiative to Understand Large Scale Sanitation and Hygiene Improvements. WSP, World Bank. **See also the programming framework in Part 2 namely, F5 FOAM and SaniFOAM**

Additional information was provided by Nat Paynter of WSP.

3.5.2 GLOBAL SCALING UP HANDWASHING BEHAVIOR CHANGE (GSUHBCP)

The Global Scaling Up Handwashing Behavior Change Project tests whether innovative approaches can generate large-scale and sustained increases in handwashing with soap (HWWS) at critical times among the poor and vulnerable in Peru, Senegal, Tanzania, and Vietnam.

Summary table

Goal	To show that handwashing with soap at scale is one of the most successful and cost-effective interventions for improving health.		
Target group	Children ☒	Individuals ☒	Household ☐
	Community ☐	Schools ☐	Society ☐
How applied to date?	Rural ☒	Urban ☒	Informal-urban ☒
	Pilot ☒	Expanding ☐	At scale ☒
	In one country ☐	In more than one country ☐	
	In more than one region ☒	Worldwide ☐	
Cross-references to PART 2?	Public-Private Partnership for Handwashing with Soap **H2.2** FOAM and SaniFOAM **F5**		

Description

With funding from the Bill and Melinda Gates Foundation, the Water and Sanitation Program is supporting government counterparts to implement this five-year project (2006-2011). The project has the primary goal of learning about scaling up effective and efficient handwashing interventions that improve health.

The project works to understand how to implement large-scale projects and what the health and poverty impacts are. Handwashing interventions are designed around detailed formative research to identify the behavioural determinants that both facilitate and hinder improved handwashing behaviours. The activities are then carried out through a variety of media, including mass media, direct consumer contact, and interpersonal communications. The impacts of the project are captured through a randomised/control impact evaluation that compares endline results with baseline data.

The specific project objectives are to:

- Design and support the implementation of innovative, large-scale, sustainable handwashing programmes (in four diverse countries);
- Document and learn about the impact and sustainability of innovative, large-scale handwashing programmes;
- Learn about the most effective and sustainable approaches to triggering, scaling-up, and sustaining handwashing behaviours;
- Promote and enable the adoption of effective handwashing programmes in other countries and position handwashing as a global public health priority through the translation of results and lessons learned into effective advocacy, applied knowledge, and communication products.

The project is designed to achieve specific handwashing targets for each country at the end of two years of implementation. It seeks to reach 5.4 million people in five years, the target audience being disadvantaged women aged 15-49 and children aged 5-9.

Furthermore, the programming framework FOAM is being utilised in the project to help programme managers and implementers understand and analyse handwashing behaviours, **see approach F5 FOAM and SaniFOAM**.

History of approach

Year started	2006 **Year ended (if applicable)** Ongoing until 2011
Origins (who by and where was it invented)	Water and Sanitation Program (WSP). Currently being pilot tested at-scale in four countries, see below.
Funding from (name of donor agencies, if applicable)	The Bill and Melinda Gates Foundation.
Countries used in to date	Peru, Senegal, Tanzania, and Vietnam.
Experience to date	Rosenweig (2008) reports that baseline Enabling-environment assessments have been conducted in the four target countries to better understand the programmatic and institutional conditions needed to scale up, sustain, and replicate the interventions used in the projects. The assessments will be repeated after three years of project implementation "to assess progress in strengthening the enabling environment and to determine more definitive lessons learned". Rosenweig (2008) also concludes that the enabling environment in all four pilot countries to create and sustain large-scale handwashing programmes is not yet in place. The assessment emphasised "the importance of adapting the public-private partnership for handwashing (PPPHW) methodology to the specific context of each country to ensure ownership".

Perceived strengths and weaknesses

Strengths	Not yet available
Weaknesses	Not yet available

Evidence of effectiveness

Published internal evaluations	None
Published external evaluations	None
Impacts, outcomes and sustainability	Insufficient data.
How much does it cost?	Insufficient data.
Human resource requirement?	Insufficient data.
Time required to complete intervention	Insufficient data.

Sources of information, toolkits, guidebooks and further reading

Source(s) of information	WSP website Global Scaling Up Handwashing Behaviour Change, available at; http://www.wsp.org/index.cfm?page=page_disp&pid=1586 – Accessed March 2010. WSP (2009a). Global Scaling Up Sanitation Project Second Annual Progress Report: Indonesia, Tanzania and the States of Himachal Pradesh and Madhya Pradesh, India: July 1, 2008 – June 30, 2009. WSP, Washington DC, USA. http://www.wsp.org/UserFiles/file/gsp_annual_progress_report.pdf – Accessed March 2010. Rosenweig, F. (2008). Synthesis of Four Country Enabling Environment Assessments for Scaling Up Handwashing Programs. WSP Washington DC, USA. http://www.wsp.org/UserFiles/file/hw_synreport.pdf – Accessed March 2010.
Toolkits or guidebooks	Cogswell, L. and Jensen, L. (2008). Guidelines for Assessing the Enabling Environment Conditions for Large Scale, Effective and Sustainable Handwashing with Soap Projects. WSP Washington DC, USA http://www.wsp.org/UserFiles/file/EEA_Guidance_HW.pdf – Accessed March 2010. Scott, B. Curtis, V. and Cardosi, J. (2005). The Handwashing Handbook. A guide for developing a hygiene promotion program. The World Bank, BNWP and WSP. http://www.globalhandwashing.org/Publications/Handwashing_Handbook.pdf – Accessed March 2010.
Further reading	**See Approach H 2.2 Public-private Partnerships for Handwashing with Soap and see also the programming framework in Part 2 namely, F5 FOAM and SaniFOAM.** Nguyen, N. K. (2010). Designing Evidence-based Communications Programs to Promote Handwashing with Soap in Vietnam. Paper prepared for South Asia Hygiene Practitioners Workshop, Dhaka Bangladesh, February 2010. WaterAid, WSSCC, IRC and BRAC. http://www.irc.nl/page/51637 – Accessed March 2010. Devine, J. (2009). Beyond Tippy-Taps: The Role of Enabling Products Role in Scaling Up and Sustaining Handwashing. Paper prepared for South Asia Hygiene Practitioners Workshop, Dhaka Bangladesh, February 2010. WaterAid, WSSCC, IRC and BRAC. http://www.irc.nl/page/51606 – Accessed March 2010.

Additional information was provided by Nat Paynter of WSP.

GLOSSARY

Anganwadis: government sponsored child-care and mother-care centre in India. It caters for children in the 0-6 age group.

Above/Below Poverty Line (A/BPL): a measure of poverty using indicators such as the level of personal expenditure or income required to satisfy a minimum consumption level. For instance, the Planning Commission of the Government of India uses a food adequacy norm of 2400 and 2100 kilo calories per capita per day to define state-specific poverty lines separately for rural and urban areas respectively. These poverty lines are then applied to India's National Sample Survey Organisation's household consumer expenditure distributions to estimate the proportion and number of poor at State level.

Behavioural determinants: the factors that can facilitate or inhibit a behaviour of interest among a certain population. For sanitation, these determinants can be internal (such as beliefs about faeces) or external (such as sanctions for open defecation) (see Devine (2009a) in F5 FOAM and SaniFOAM).

DALY (Disability Adjusted Life Year): the quantitative indicator of burden of disease that reflects the total amount of healthy life lost, whether from premature mortality or some degree of disability during a period of time.

Demand-Responsive Approaches (DRA): an approach to infrastructure service planning in which households or communities select a level of service that corresponds to their needs, preferences, and ability to contribute both to initial capital costs and ongoing operation and maintenance.

Empower: to help people to develop the ability and knowledge to take decisions on matters relating to themselves.

Evaluation: occasional assessment carried out at important stages of a project.

Facilitate: to assist an activity so that it runs smoothly and in an organised way, and so that participants gain maximum benefit from it.

Handwashing: is the act of cleansing the hands with the use of water or another liquid, with or without the use of soap, for the purpose of removing soil, dirt, and/or microorganisms.

Hygiene: the behaviours/measures, including but also beyond the management of human faeces, which are used to break the chain of infection transmission in the home and community.

Hygiene and sanitation software: social interventions and/or interactions that enable a change in behaviour, create demand or facilitate establishment of supply chains.

Hygiene promotion: a planned approach to preventing sanitation-related diseases through the widespread adoption of safe hygiene practices. It begins with and is built on what local people know, do and want. **(See H1.1 – World Bank website Sanitation Hygiene and Wastewater Resource Guide)**.

Informal-urban area: This term is used in this document to refer to all relatively dense, unplanned, informal settlements within the boundaries of towns or cities. It therefore encompasses: slums (unplanned housing illegally constructed on land with no security of tenure, sometimes referred to as 'squatter settlements'); unplanned settlements where land tenure is formalised; growth areas on the edges of cities and towns where housing may be unplanned and growth rates high (often referred to as 'peri-urban' or the 'peri-urban interface') and all other densely settled areas which lie outside the formal planned definition of a city or town.

Information, Education, Communication (IEC): activities that support and promote the provision of programme services and facilities, for example media campaigns, capacity building activities and community hygiene promotion sessions.

Latrine: a place or building, not normally within a house or other building, for defecation and urination. Latrine and toilet are often used interchangeably, a latrine more commonly refers to a temporary structure (see also toilet).

Mikikir: Ethiopian field tool to assess hygiene practices at the household level.

Millennium Development Goals (MDGs): eight international development goals that 192 United Nations member states and at least 23 international organisations have agreed to achieve by the year 2015.

Monitoring: routine checking or controlling of progress throughout the life of a project to ensure that its objectives are met and met efficiently.

Nirmal Gram Puraskar (NGP): a national award introduced in India in 2005 for 'clean villages'. Villages receive a cash prize and certification presented by the President of India.

Open defecation (OD): defecating in the open and leaving the faeces openly exposed to the air.

Open defecation free (ODF): when no faeces are left openly exposed to the air. A direct pit latrine with no lid is a form of open defecation (fixed point open defecation), but with a fly-proof lid (with or without the use of ash to cover the faeces after defecation) qualifies as ODF. Defecating into a trench and covering the faeces can be part of the transition from OD to ODF **(see S1.1 – Kar and Chambers, 2008)**.

Private sector: individuals, companies or organisations who provide goods and services on a commercial basis for profit.

Programming: the establishment of a set of rules and conventions under which all sanitation and hygiene promotion projects and investments can be made, such that they all work towards an agreed long-term vision for improved health and dignity for the entire population.

Rural areas: large and isolated areas of a country, often with low populations and correspondingly lower density of human-created structures than an urban area.

Sanitation: the collection, transport, treatment and disposal or reuse of human excreta. For the purposes of this document domestic wastewater and solid waste, and associated hygiene promotion are excluded and dealt with separately.

Sanitation hardware: toilets, pipes, sewers, taps, soap and ancillaries such as pit emptying equipment.

Sanitation marketing: the use of marketing techniques to promote the construction and use of sanitation facilities.

Sanitation promotion: activities undertaken to stimulate household demand for, and the supply of, the sanitation hardware necessary to maintain a healthy environment.

Small-scale Independent Provider (SSIP): individual, company or voluntary/non-profit organisation providing goods or services relating to hygiene improvement operating independently of the system of public provision.

Social marketing: the use of commercial marketing techniques to promote the adoption of behaviour that will improve the health or well-being of the target audience or of society as a whole **(see H2 – Weinreich, 1999)**.

Sustainable sanitation: a sustainable sanitation system is one that is safe to use and does not pollute the environment whilst also being appropriate and affordable for the household/community to use/operate and maintain.

Total sanitation: universal use of toilets and the elimination of open defecation in the community targeted.

Toilet: used interchangeably with latrine and includes all types of technical sanitation solutions including flush toilets, pour flush toilets and pits. Tends to refer to a facility that is located inside a building and is a permanent structure but can include pit latrines built outside as well (see also latrines).

Urban area: an area with an increased density of human-created structures compared with the areas surrounding it.

HYGIENE AND SANITATION SOFTWARE

An Overview of Approaches

Sanitation is enshrined in the Millennium Development Goals and is a cornerstone of the fight against poverty. Lack of basic sanitation puts millions of lives at risk and is responsible for a quarter of all child deaths in developing countries every year. Lack of sanitation and poor hygiene also severely limits the impact of other development interventions in education, health, rural and urban development.

An enormous amount of resources has been expended on providing sanitation facilities, yet over 2.5 billion people still do not have access to basic sanitation services (WHO, UNICEF, JMP, 2008). Throughout the developing world the low sanitation coverage figures paint a stark picture. Furthermore, sanitation hardware alone is not sufficient: in many instances even though new toilets and washing facilities have been built, and coverage is recorded by officials as relatively high, proper usage remains low and little or no benefit is derived. Indeed, awareness is growing amongst public health practitioners that, until hygiene is properly practiced, both at home and in the community as a whole, the desired impact of improved water and sanitation services in terms of community health benefits cannot be realised.

Over the past four decades practitioners have strived to find ways to reduce not only the huge number who remain without access to a toilet but also the huge number who do not use facilities hygienically even when they are available. The methods used to address this problem endeavour to engage target groups (individuals, households, communities, institutions or even organisations) in development programmes that enable a change in behaviours or create a demand for services. These methods or approaches are generally referred to as 'software' activities to distinguish them from the provision of hardware.

This document gives a snapshot in time of current software available and provides a basic analysis of these approaches and their applicability in certain situations.

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