A woman carries a water canister across a local marketplace in rural Ethiopia. The Joint Monitoring Programme (JMP, 2015) indicates that 57% of the Ethiopian population uses safe drinking water, up from 14% in the 1990 baseline year – an estimated increase of 48 million people. Photo credit: WSSCC
The Evidence Programme on Sanitation and Hygiene
The Evidence Programme on Sanitation and Hygiene (EPSH) stems from a strategic partnership between WSSCC and the International Initiative for Impact Evaluation (3ie) and was inspired by several questions on water, sanitation and hygiene (WASH):

1. What are the most effective means of reducing open defecation?
2. How can we best encourage collective behaviour change so as to achieve sustained use of improved sanitation facilities?
3. How can access to sanitation influence wider issues concerning female empowerment – namely, restoring the safety and dignity of women and girls worldwide?
4. How integral has the “life-course approach” been to the WASH programmes over the Millennium Development Goal (MDG) era (2000-2015)?
5. How is scaling-up best achieved; and what are the respective roles of decentralization, subsidies and interventions to the success of encouraging scaling-up in the WASH sector?
6. How can we contribute towards an evidence-based culture and practice, and as a result contribute towards the International Year of Evaluation in 2015?
7. How can we surpass the WASH sector and expand towards a multi-disciplinary, multi-sectoral, learning and enriching experience?
Evidence gaps in the WASH sector

An evidence gap map (EGM) based on analysis of 26 systematic reviews and 139 impact evaluation studies of WASH interventions in low and middle income countries (L&MICs) reveals the following:

- 50 impact evaluation studies alone employed robust approaches: less than half of these (26 studies) estimated impacts of sanitation and hand hygiene (either individually or alongside water quality improvements);
- Diarrhoea is the main focus of study in WASH impact evaluations, and in many cases even diarrhoea impacts are badly measured;
- Most studies fail to consider impacts on gender empowerment, the lives of the disabled, time efficiency, governance, drudgery, respiratory infections, nutrition, mortality and education;
- A negligible number of studies analysed the consequences of demand-side approaches, i.e. Community-Led Total Sanitation (CLTS) and sanitation marketing;
- Few estimate the impacts on sanitation and hygiene programmes that are part of a scale-up;
- The majority of these impact evaluations are located in South and East Asia; there are very few rigorous prospective studies focusing on sanitation impacts in sub-Saharan Africa.

WSSCC & 3ie: A complementary partnership

Formed in 2014, this strategic partnership features two equally committed parties with vast expertise. As a global membership organization WSSCC embodies the values of collective spirit and solidarity, encouraging collaboration across the board while exercising leadership and bringing diverse voices together as one.

WSSCC is well-versed in policy advocacy and manages the leading global sanitation and hygiene financing mechanism— the Global Sanitation Fund (GSF). 3ie works on meeting the growing demand for more and better evidence of which development interventions in low- and middle-income countries work and why.

By funding rigorous impact evaluations and systematic reviews and by making evidence accessible and useful to policymakers and practitioners, 3ie is helping to improve the lives of people living in poverty. 3ie also offers state-of-the-art technical expertise on impact evaluations and systematic reviews.

Operating realities of the WASH sector

- Infrastructure-driven
- Sustaining changes in behaviour throughout the lifetime
- Monitoring behaviour change – a significant challenge
- Output monitoring and evidence gathering
- Lack of data vis-a-vis various dimensions of equity

EGMs are important tools for evidence-based policymaking and prioritizing strategic research. To see how they provide the best available evidence on the outcomes of water, sanitation and hygiene interventions, visit: http://gapmaps.3ieimpact.org/evidence-maps/water-sanitation-and-hygiene-evidence-gap-map.
Different facets of work

The Evidence Programme on Sanitation and Hygiene (EPSH) can be deconstructed and understood as combining four aspects of work that feed the evidence building pool of the WASH sector and beyond. Each facet is introduced and explained below.

The Advisory Committee for the EPSH programme

A primary objective of the EPSH programme is to encourage inter-agency collaboration: by learning and sharing together we can sustain a positive influence on evidence-building culture.

The EPSH Advisory Committee creates a space for experts from the fields of evaluation, WASH, health, academia and the donor constituency to work together. Each member represents an agency committed to working as part of a collective in order to advance the evidence-building culture.

The Advisory Committee members are:

- Andrea E Cook: Director, Evaluation, UNFPA
- Seat currently vacant, UNICEF
- Dr. Bertha Briceño: Lead, Knowledge and learning Department, the Inter-American Development Bank (IDB)
- Dr. Pavani Ram: Associate Professor, University of Buffalo
- Johan Sundberg: Programme Manager, Swedish International Development Cooperation Agency (SIDA)

Community-led Total Sanitation and Hygiene (CLTSH) in Ethiopia is a government-backed, low-cost, and locally acceptable approach to improving sanitation and hygiene. An impact evaluation will investigate the impact of enhanced CLTSH on mental well-being and sustained behaviour change. Photo credit: WHO/Pierre Virot
I. IMPACT EVALUATIONS

Impact evaluation 1: Does the GSF programme reduce psychosocial stress, improve safety and improve the quality of life among women and girls?

Background: In India, two-thirds of the population lives with unimproved sanitation and an estimated 600 million people defecate outside, representing 60% of the global population practicing open defecation. The global Development goals (MDGs & SDGs) focus on infrastructure and disease impacts – and pay little if any attention to the social, psychological, and behavioral impacts of sub-optimal access and use of sanitation, which further compound the existing vulnerabilities women face in the daily lives.

Impact evaluation objective: The impact evaluation will assess whether the GSF3 programme in Bihar, India, reduces the sanitation related psychosocial stress and improves the safety and quality of life among women and girls.

Approach: The impact evaluation uses a mixture of established measures of sanitation-related psychosocial stress (SRPS). SRPS measures consider the key aspects of stress, quality of life and psychosocial stressors within the framework of sanitation access and use. In particular, there is a strong focus on menstrual management, post-defecation cleaning and post-defecation bathing. The evaluation will compare this measure of SRPS against global standards and widely-recognized measures of generalized psychosocial stress and distress, including the Multidimensional Scale of Perceived Social Support (MSPSS), the Kessler Distress Scale 10 and the WHO-5 Well-Being Index.

Impact will be calculated by employing a difference-in-difference analysis with matching – namely, estimating the average difference in individual psychosocial stress measures between communities in the intervention group and a matched community in the comparison group.

The impact evaluation will be carried out between autumn 2015 and spring 2017. Primary Investigator Robert Dreibelbis from the University of Oklahoma will lead the research team, which includes representatives of leading academic institutions in the field of sanitation and hygiene research.4

Potential implications for policy and practice: The research will not only provide key data on the gender-specific consequences of sanitation programmes, it will also inform the rapid and ongoing evolution of sanitation programming in India, and global policy and practice.

Expected results: The final report is expected by June 2017.

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2 WHO and UNICEF, 2014
3 The Global Sanitation Fund (GSF), operational in India since 2010 promotes sustainable sanitation in rural communities in the states of Assam, Jharkhand and Bihar through behavior change (software approach) by triggering sanitation demand and promoting sustainable behavior change at the local level.
4 University of Oklahoma, London School of Hygiene and Tropical Medicine, Society for the Promotion of Participatory Ecosystem Management, Texas A&M University.
Impact evaluation 2: Investigating the impact of enhanced CLTSH on mental well-being and sustained behaviour change

Background: Community-led Total Sanitation and Hygiene (CLTSH) in Ethiopia is a government-backed, low-cost, and locally acceptable approach to improving sanitation and hygiene. Despite being scaled-up throughout the Amhara region, the impact of CLTSH is under-researched, which means important knowledge gaps still exist. Few rigorous studies assessing causal attribution of CLTSH are available, and no experimental studies have evaluated CLTSH's effect on mental well-being.

Objective: To investigate the effectiveness of enhanced CLTSH compared with the standard level of care in WASH. The specific research questions are:

(i) Does enhanced CLTSH lead to a change in: social norms; the uptake, maintenance and exclusive use of sanitation facilities for defecation; and hygiene behaviours?

(ii) Does CLTSH improve sanitation security; and does water security modify the effectiveness of the intervention to change hygiene behaviours?

(iii) What is the impact of enhanced CLTSH on mental well-being?

Approach: The impact evaluation will employ a varied methodological approach to gather data for testing theories and making claims at stages along the causal chain. The methodology will involve both qualitative (focus group discussions; in-depth interviews) and quantitative (structured surveys; observation of facilities) aspects.

Including an additional evaluation component and a cluster-randomized controlled trial (C-RCT), the research will explore the impact of CLTSH on trachoma in Amhara, Ethiopia. In addition to covering typical but important aspects related to WASH, it will also consider non-infectious disease health impacts such as mental well-being. These considerations will play an integral role in helping us understand how sanitation and hygiene impact behaviour change and trachoma.

The impact evaluation will be carried out between autumn 2015 and spring 2017. Primary Investigator Matthew Freeman from Emory University, Georgia, USA will lead a research team from leading development and academic institutions in the sanitation and hygiene field.

Potential implications for policy and practice: The impact evaluation will help to fill evidence gaps concerning the role of CLTSH in addressing non-infectious disease impacts. It will also generate evidence to influence the Government of Ethiopia's CLTSH implementation policy as well as inform WASH implementers.

Expected results: The final report is expected by June 2017.

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1 Community-Led Total Sanitation (CLTS) focuses on the behavioural change needed to ensure real and sustainable improvements by investing in community mobilisation instead of hardware, and shifting the focus from toilet construction for individual households to the creation of open defecation-free (ODF) villages. Enhanced CLTSH refers to the conventional CLTS approach's added hygiene component.

2 See for instance The WASH Evidence Gap Map.

3 Funded by the Strategic Impact Evaluation Fund (SIEF), World Bank.

4 Emory University, World Bank, Carter Center

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In Madagascar, the GSF-supported Fonds d’Appui pour l’Assainissement (FAA) works through sub-grantees to implement community-led total sanitation (CLTS) activities in local communities, in order to achieve large scale sanitation and hygiene results. Photo credit: WSSCC/Katherine Anderson
II. SYSTEMATIC REVIEWS

Systematic Review 1: How effective are interventions that promote sanitation and hygiene behaviour change in communities?

**Background:** A number of programmes have been launched with the premise of promoting the uptake and use of sanitation and hygiene. Examples include sanitation marketing, CLTS and national government subsidy programmes.

But despite this important work, there is a serious absence of systematic review evidence on which approach is most effective regarding:

- Sustainable behavior change at scale;
- Health (decreased morbidity and mortality due to diarrhoea);
- Education (increased knowledge, better skills and attitudes);
- Gender and human rights.

Evidence is crucial for policymakers and other key figures when it comes to making better decisions and improving development practice. Therefore, a comprehensive review will work to tackle the fundamental research questions of, “how effective are the demand-and supply-side interventions aiming to promote collective sanitation and hygiene behaviour change in low- and middle-income countries?”, “in which contexts?” and “why or why not?”.

**Implementing agencies:** The Centre for Evidence-Based Practice (CEBaP), Belgian Red Cross-Flanders and the Centre for Evidence-Based Health Care at Stellenbosch University, South Africa.

**Lead Principal Investigator:** Emmy De Buck, manager at the Centre for Evidence-Based Practice, Belgian Red Cross-Flanders.

**Expected results:** The final report is expected by June 2017.

School children demonstrate the use of hands-free handwashing facilities in Tanzania’s Dodoma region. Photo credit: Plan Tanzania

Systematic Review 2: To what extent has the WASH sector considered the lifecycle approach in the design and implementation processes including the maintenance and use of programme services during the MDG era 2000-2015?

**Background:** Despite the important gains made by the MDGs, improvements have often excluded the most marginalized – those suffering from discrimination, exclusion and the poorest of the poor. To truly make universal access to WASH a reality, an individual’s practical needs must be respected and met at every stage of his or her life. This includes addressing the specific needs of people of different age, gender and physical abilities.

The evidence generated will address the extent to which projects, programmes and policies are designed and implemented with consideration of the lifecycle. It will contribute towards improving policies, strategies, plans, programmes and projects throughout the SDG period by highlighting those aspects of the lifecycle which are typically excluded and therefore urgently need to be addressed.

**Implementing agency:** Indian Institute of Technology (IIT), Madras.

**Lead Principal Investigator:** Prof. Thillai Annamalai.

**Expected results:** The final report is expected by June 2017.
III. Evaluating advocacy approaches in development

Background: Evaluating the impact of advocacy approaches is arguably a difficult yet important area of evaluation. Yet, for many development agencies, advocacy is a core activity. WSSCC is therefore funding a study (through 3ie) to assess the success of advocacy approaches and programmes across different thematic areas.

Objective: To identify the factors that are crucial to the success of advocacy approaches and programmes in low- and middle-income countries, and shed light on the conditions that enable policy change through advocacy initiatives.

Approach: The study will have three components, including:
- A desk review;
- In-depth reviews of interviews with advocacy experts, researchers, heads of advocacy departments in relevant organizations as well as policymakers and change agents and
- An examination of advocacy approaches including, but not limited to, WASH.

Expected results: The final report is expected by May 2016.

Potential implications for policy and practice: The study will create a more robust evidence base for planning, monitoring and evaluating advocacy programmes, both for WSSCC and the broader advocacy-focused community.
About WSSCC

WSSCC is at the heart of the global movement to improve sanitation and hygiene, so that all people can enjoy healthy and productive lives. Established in 1990, WSSCC is the only United Nations body devoted solely to the sanitation needs of the most vulnerable and marginalized people. In collaboration with our members in 150 countries, WSSCC advocates for the billions of people worldwide who lack access to good sanitation, shares solutions that empower communities, and operates the GSF, which since 2008 has committed close to US$ 109 million to transform lives in developing countries.

Learn more at www.wsscc.org

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