

Resources

A review of resources and published papers on WASH in developing countries



The 'Resources' review is made of a selection of open access reports, research papers or articles related to WASH issues, gathered and read by the pS-Eau during the last months. In this 8th issue, a special focus is given to inclusion matters. You will also find the latest publications of reference related the global SDG monitoring. We wish you a pleasant reading!

The pS-Eau team

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DRINKING WATER

Access to Drinking Water: Time Matters

Cassivi A. *et al.*, 2018



The study aims to demonstrate the effect of adding a 30-minute collection time component to monitor access to

drinking water. This study draws on household surveys from 17 countries to highlight the widespread burden of fetching water and its significant impact on estimates of coverage.

A Global Overview of National Regulations and Standards for Drinking-Water Quality

WHO, 2018



When setting national drinking-water quality regulations and standards, many countries consider the

WHO Guidelines for drinking-water quality (GDWQ). To better understand the extent to which the GDWQ are used and reflected in these standards, this global review summarizes information from 104 countries and territories on values specified in national drinking-water quality standards for aesthetic, chemical, microbiological and radiological parameters.

Solar Pumping: Training Manual

PRACTICA Foundation, 2018 (in French only)



Professional will find in this manual an overview of the design and sizing, operation and maintenance,

analysis and financial management of solar-pumped drinking water supply systems, adapted to the Mauritanian context. The drafting of this guide was part of the support and training process of managers of the Ministry of Hydraulics and Sanitation (MHA) and its decentralized services.

Life Cycle Analysis: Assessing the Capital and Operational Expenditure of Handpump Preventive Maintenance

Butterworth S. & McNicholl D., 2018



This study aims to quantify the capital expenses of rehabilitating 47 U2 handpumps located in Kumi District, Uganda,

as well as the ongoing operational expenses of maintaining them. Results aim to inform the resources required to reliably maintain handpump functionality.

Shock Chlorination: The Solution to Safer Water?

A.Verkerk & D. McNicholl, 2018

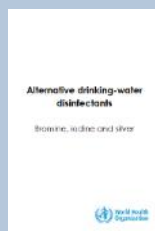


The effectiveness of shock chlorination was assessed for reducing faecal contamination of water in

handpumps, together with the feasibility of local handpump mechanics performing shock chlorination services. This article presents the methodology, relevance and results of shock chlorination conducted at 20 sources in Kumi District, Uganda.

Alternative Drinking-Water Disinfectants : Bromine, Iodine and Silver

WHO, 2018



Although chlorine has been used as the disinfectant of choice for public drinking-water supplies for the

past century, a number of emerging or alternative compounds are used or are being considered for the disinfection of drinking-water.

Developing Drinking-Water Quality Regulations and Standards: General Guidance with a Special Focus on Countries with Limited Resources

WHO, 2018



This document provides practical guidance to support the development or revision of customized national or sub-national drinking-water quality regulations and standards. The principles and guidance presented are broadly applicable across countries and contexts, including more resource-limited settings.

Living with Water Insecurity in a Sahelian City: Household Coping Strategies in Niamey, Niger

Vaucelle S. & Harouna H.Y., 2018 (in French only)



The city of Niamey is marked by water insecurity: the public water service depends mainly on the Niger River and households use groundwater as a complementary resource, both of which being highly variable over time. This article studies the development of different household adaptation strategies to water insecurity, based on the results of a field survey on different modes of access to water conducted in Niamey in 2016 among 400 households.

Sand Dams: a Practical & Technical Manual

Excellent Development, 2018



Sand dams are a relevant water resource solution in drylands. However, they are not appropriate everywhere. This manual describes the process of establishing the feasibility of sand dams on a regional basis whilst also detailing other solutions suitable for seasonal rivers. It is aimed at NGO and government, technical and programme management staff working in drylands, who are interested in understanding more and/or implementing sand dam technology.

Sachet Water Quality and Product Registration: a Cross-Sectional Study in Accra, Ghana

Dzodzomenyo M. *et al.*, 2018



The study's objectives were to assess the extent to which packaged water producers follow product registration procedures and to assess the relationship between product registration and drinking water quality in Accra, Ghana.

OUR PUBLICATIONS

Household Water Treatment and Storage, 2018



This practical guide provides an overview of the issues related to household water treatment and storage. The reader can find a short review of treatment technologies frequently encountered in developing countries as well as a presentation of key practices for household water storage.

In French only.

SANITATION

Guidelines on Sanitation and Health

WHO, 2018



The new WHO Guidelines on Sanitation and Health summarize the evidence on the effectiveness of a range of sanitation interventions

and provide a comprehensive framework for health-protecting sanitation, covering policy and governance measures, implementation of sanitation technologies, systems and behavioural interventions, risk-based management, and monitoring approaches. Critically, the guidelines articulate the role of the health sector in maximizing the health impact of sanitation interventions. The guidelines also identify gaps in the evidence-base to guide future research efforts to improve the effectiveness of sanitation interventions.

Shared and Public Toilets : Championing Delivery Models That Work

World Bank, 2018



This document provides background and guidance on how to design and implement shared, communal and public sanitation facilities, with a

focus on operation and management models that support long-term service provision. The document draws on good experiences from across the globe and reflects lessons learned from design and implementation experiences – both positive and negative – in a range of countries.

Shared Latrine Use and Dynamics in Rural Cambodia: Full Report

WaterAid & Plan International, 2019



This study was designed to identify common and varying characteristics of shared latrine users, understand factors that facilitate or

motivate sharing, and explore sharing households' current sanitation practices, their satisfaction with that arrangement and their future sanitation intentions. It was based on a qualitative research project conducted in open defecation free communities in rural Cambodia.

Sectoral Innovation Sanitation Facility for NGOs: FISONG 2012 Knowledge Capitalization Booklet

AFD, 2018 (in French and English)



In 2012, the Agence Française de Développement (AFD) launched a Sanitation Innovation Facility (FISONG) in the field of "Sanitation,

hygiene and waste: long-term mechanisms and local capabilities". Five projects were selected in Senegal, Mauritania, Guinea, Burundi and Madagascar and implemented between 2013 and 2017 by the NGOs CARE France, CIDR, Enda Europe, GRET and PAD. This knowledge capitalization booklet was produced to share the lessons learnt.

The Cost of Urban Sanitation Solutions: A Literature Review

Daudey L., 2017



The main objective of this paper is to review the literature on and compare the lifecycle costs of full sanitation chain systems in developing cities of Africa and Asia.

A 2-pages brief produced by WSUP to summarize the article is also [available here](#).

Innovative Sanitation Approaches Could Address Multiple Development Challenges

Andersson K. *et al.*, 2018



This mini review provides a brief overview of alternative approaches to sanitation and sector trends that could help achieve the SDGs.

To download a document, click on the title, the picture or the text of the short summary.

You can find the complete list of documents and their full references on our database: [here](#).

Constructed wetlands for domestic wastewater treatment in tropical areas: a guide for the design of the tropicalized sanitation system

Lombard-Latune R. & Molle P. (IRSTEA), 2017 (in French only)



This guide was developed as a support tool for the design and implementation of a wastewater treatment project using constructed

wetlands. The recommendations presented in this document, developed as part of research carried out in French overseas territories, can be applied throughout the tropical region.

Community Engagement in Sanitation: A Landscape Review

HIF & Oxfam, 2018



Despite its perceived importance, the evidence suggests that community engagement in all sectors of humanitarian response is often limited and rarely monitored or evaluated. Sanitation projects may involve the community only in the construction phase as a paid labour force, or as a cash-for-work initiative. This report provides a landscape review of existing community engagement practice and approaches that could be used to better incorporate rapid community engagement in the first stage of rapid-onset emergencies.

Frontiers Number 11: Engaging Men and Boys in Sanita-

tion and Hygiene Programmes

CLTS Knowledge Hub, 2018 (in French and English)



This issue of Frontiers of CLTS shares and builds on the learning from a desk study that explores examples of men's and boys' behaviour and gender roles in sanitation and hygiene (S&H). Of particular interest is the extent to which the engagement of men and boys in S&H processes is leading to sustainable and transformative change in households and communities and reducing gendered inequality.

How Does Community-Led Total Sanitation (CLTS) Affect Latrine Ownership? A Quantitative Case Study from Mozambique

Harter M., Mosch S. and Mosler H.-J., 2018



Community-led total sanitation (CLTS) is a widely used, community-based approach to tackle open defecation and its health-related problems. Although CLTS has been shown to be successful in previous studies, little is known about how CLTS works. The authors used a cross-sectional case study to identify personal, physical, and social context factors and psychosocial determinants from the Risks, Attitudes, Norms, Abilities, and Self-Regulation (RANAS) model of behavior change, which are crucial for latrine ownership and analyze how participation in CLTS is associated with those determinants.

Determining the Effectiveness and Mode of Operation of Community-Led Total Sanitation: The DEMO-CLTS Study

Harter M. & Mosler H.-J. (Eawag), 2018



This final report of the DEMO-CLTS project funded by the Bill and Melinda Gates Foundation aimed to assess the impact of CLTS on open defecation. Moreover, it aimed to determine the mechanisms of CLTS for behavioural change. The study also compared the effectiveness of the CLTS approach against that of an evidence-based approach.

Is Community-Led Total Sanitation Connected to the Rebuilding of Latrines? Quantitative Evidence from Mozambique

Mosler H.-J. et al., 2018



To reduce open defecation, many implementers use the intervention strategies of Community-Led Total Sanitation (CLTS). But CLTS focuses

on latrine construction and does not include latrine maintenance and repair damage or collapse. Some households rebuild their latrine while others return to open defecation. The reasons why are unknown. Using data from a cross-sectional survey, this articles how show physical, personal, and social context factors and psychosocial factors from the RANAS model are associated with CLTS participation, and how these factors connect to latrine rebuilding .

HEALTH & HYGIENE

A Systematic Review and Meta-Analysis of the Association between Water, Sanitation, and Hygiene Exposures and Cholera in Case-Control Studies

Wolfe M. *et al.*, 2018



To our knowledge, the association between WASH exposures and cholera from case-control studies has not been systematically analyzed. A systematic

review was completed to close this gap, including describing the theory of risk and protection, developing inclusion criteria, searching and selecting studies, assessing quality of evidence, and summarizing associations between cholera and seven predicted WASH protective factors and eight predicted WASH risk factors using meta-analysis and sensitivity analysis.

WaSH Policy Research Digest, Issue #9 - Governments Can Achieve Cholera Control through a Well-Targeted and Coordinated Combination of Universal WaSH Access and Vaccination

UNC Water Institute, 2018



Cholera still occurs throughout sub-Saharan Africa, where it is endemic in some countries, and strikes in sporadic and deadly epidemics in

others. In a paper published in March 2018, Lessler *et al.* present the findings from an analysis that allowed them to estimate the number of people in sub-Saharan Africa living in areas of high cholera incidence, defined as more than one case per thousand people per year. This paper is a short review of their article.

Are schoolchildren less infected if they have good knowledge about parasitic worms? A case study from rural Côte d'Ivoire

Palmeirim M.S. *et al.*, 2018



The aim of this study was to assess the potential influence of knowledge that children acquired at home or in school, without any specific health education

intervention, on helminth infections. The research was based on a cross-sectional survey carried out in four regions of western Côte d'Ivoire.



OTHER WASH RESOURCES

A Review of In-Situ and Remote Sensing Technologies to Monitor Water and Sanitation Interventions

Andres L. *et al.*, 2018



This document reviews the landscape of approaches using in-situ and remote sensing that can be used to support and improve the monitoring of water and sanitation indicators in the context of the SDGs.

Funding Mechanisms to Incentivize Sustainable and Inclusive Water Provision in Kenya's Arid and Semi-Arid Lands

OXFAM, 2018



In the context of Kenya's arid and semi-arid lands (ASALs), NGOs and donors as well as private sector players are exploring how they can help vulnerable populations to prepare and build resilience to extended drought sequences and climate volatility. The use of solar-powered water pumps (SWPs) is one approach through which partners are helping to do this. This report is a concept-stage exploration of optimal funding mechanisms to accelerate and incentivize the adoption of SWPs in the Kenyan ASALs, alongside accompanying management systems to ensure financial viability, inclusion and accountability.

Nature Based Solutions UN Water Development Report

UN-Water, 2018



The 2018 edition of the World Water Development Report (WWDR 2018) seeks to inform policy and decision-makers, inside and outside the water community, about the potential of nature-based solutions (NBS) to address contemporary water management challenges across all sectors, and particularly regarding water for agriculture, sustainable cities, disaster risk reduction and water quality.

Flood risk and cities in developing countries

AFD, 2017 (in French and English)



This technical report explains the issues of the components of integrated flood risk management and draws up a non-exhaustive list of the different existing tools, also presenting their limits of application. A presentation of examples of at-risk territories supports the elements explained in the report.

OUR PUBLICATIONS

WASH services and climate change. Impacts and responses.

In French and English, 2018

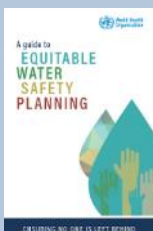


Climate-related hazards have repercussions for the availability and continuity of water and sanitation services. Existing vulnerabilities caused by population growth and urbanisation mean that the health, social and economic impacts can be amplified in a context of climate change, particularly in developing countries, and for the poorest communities. A sound understanding of the climate risks and their impacts is required before taking action. This guide provides an overview of the issues, along with definitions and keys to understanding the main climate-related concepts, in order to help water and sanitation stakeholders integrate these aspects into their practices.

INCLUSION

A Guide to Equitable Water Safety Planning. Ensuring No One is Left Behind

WHO, 2019



The lack of access to safe drinking-water is felt disproportionately by those who are disadvantaged socially, economically, demographically or geographically, and explicit consideration of these groups is required to understand and address disparities. This document describes how, with relatively modest efforts, the water safety plan (WSP) approach can bring tangible improvements in water quality and availability for all users.

Including Persons with Disabilities in Water Sector Operations. A Guidance Note

World Bank, 2017



This guidance note provides an overview of the main issues and challenges faced by people with disabilities in accessing water resources and related services. The note collates recommended strategies and practices in disability-inclusive development programming, illustrated by case studies, including World Bank Group and external examples.

Gender Equality and Disability Inclusion within Water, Sanitation and Hygiene. Exploring Integrated Approaches to Addressing Inequality

WaterAid, 2017

The discussion paper provides reflections on applying inte-



grated gender and disability approaches to rights-based water, sanitation and hygiene (WASH) programs in Timor-Leste and Papua New Guinea. The paper is intended as a conversation starter for WASH program managers and other development practitioners looking to strengthen their conceptual and practical understanding of challenges and successes in integrating gender and disability in WASH and those looking to move towards more transformative and sustainable practice.

Socially Inclusive WASH Programming: A Mapping Study

IRC, 2018



The paper provides an overview of the socially inclusive WASH approaches, methods and activities shared by nine organisations: BRAC, GIZ, PLAN Nederland, SIDA, UNICEF, WaterAid, WaterWorx, World Bank and WSSCC.

Frontiers Number 10: Equality and Non-Discrimination (EQND) in Sanitation Programmes at Scale (Part 1 of 2)

CLTS Knowledge Hub, 2017 (in French and English)



This issue of Frontiers of CLTS looks at who should be considered disadvantaged, how they can effectively participate and what may be needed to address diverse needs in order to

make processes and outcomes sustainable and inclusive. Using a range of examples from Global Sanitation Fund (GSF) programmes that were part of a recent study on equality and non-discrimination, it explores the challenges that may occur and concludes with suggested good practices that will strengthen the processes to the benefit of all.

Frontiers Number 13: Support Mechanisms to Strengthen Equality and Non-Discrimination (EQND) in Rural Sanitation (Part 2 of 2)

CLTS Knowledge Hub, 2019 (in English. French version to come)



This issue of Frontiers of CLTS (the second in a two-part series) examines the potential of support mechanisms designed to help disadvantaged groups access and use hygienic toilets in driving more equitable rural sanitation outcomes. It covers the latest thinking on the opportunities and challenges of support mechanisms, and explores what works remains to be done.

SDG MONITORING

Progress on Household Drinking Water, Sanitation and Hygiene 2000-2017. Special Focus on Inequalities

JMP, 2019 (in English. French version to come)



This JMP report presents updated national, regional and global estimates for monitoring progress in household drinking water, sanitation and hygiene for the period 2000-2017. This SDG monitoring report takes a specific focus to assess progress in reducing inequalities in the WASH sector.

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Drinking Water, Sanitation and Hygiene in Schools. Global Baseline Report 2018

JMP, 2018 (in French and English)



This report is the first comprehensive global assessment of

WASH in schools and establishes a baseline for the SDG period. According to the report, in 2016, 69% of schools globally had a basic drinking water service and 66% had a basic sanitation service, but only 53% had basic hygiene services.

WASH in Health Care Facilities. Global Baseline Report 2019.

JMP, 2019 (in English. French version to come)

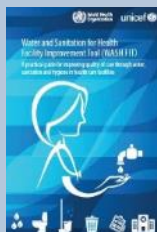


This first JMP report on WASH in health care facilities introduces new service ladders for basic services and establishes national, regional and global baseline estimates that contribute towards global monitoring of SDG targets 6.1 and 6.2 – universal access to WASH.

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Water and sanitation for health facility improvement tool (WASH FIT) : A practical guide for improving quality of care through water, sanitation and hygiene in health care facilities.

WHO, 2018 (in French and English)



WASH FIT is a risk-based, continuous improvement framework with a set of tools for undertaking water, sanitation and hygiene (WASH) improvements as part of wider quality improvements in health care facilities. It is aimed at small primary, and in some instances secondary, health care facilities in low and middle-income countries. The guide contains a number of ready to use tools to help implement WASH FIT and

step-by-step instructions for each stage.

GLAAS TrackFin Initiative: Tracking Financing to Sanitation, Hygiene and Drinking-Water at the National Level

GLAAS, 2019 (in French and English)



TrackFin (Tracking Financing to WASH) is an initiative launched in 2012 as part of UN-Water Global

Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) aiming to identify and track financing to the water, sanitation and hygiene (WASH) sector at the national or sub-national level in a consistent and comparable manner. This guidance document presents its methodology. It is designed to help countries track financing to the WASH sector on a regular and comparable basis and analyse this information to support evidence-based policy-making based on useful indicators.

Resources

A review of articles, reports and published papers on WASH in developing countries



As we know that the WASH literature is plentiful, we edit and release « Resources », a short literature review available in French and in English. Our selection, both from recent French and English literature, is far from being exhaustive, but we hope that it will give you some practical references, easily accessible for reading and downloading.

Find the previous issues at :

www.pseau.org/en/resources-ps-eau-literature-review