

# Resources

*A review of resources and publications on WASH in developing countries*



This edition of Resources contains a selection of reports, knowledge management documents, scientific journal articles, etc., that pS-Eau has collected over the last few months. This 10<sup>th</sup> issue focuses on sewage sludge reuse, WASH and nutrition, WASH and menstrual hygiene, as well as WASH and COVID-19. We hope you find it informative and useful.

The pS-Eau team

## DRINKING WATER

water quality / water pricing / drinking water production ... PAGES 2 & 3

## SANITATION

diagnostics / adaptation to climate change ... PAGES 4 & 5

## OTHER WASH RESOURCES

water and sanitation services / WASH sector ... PAGES 6 & 7

## SPECIFIC TOPICS

SLUDGE TREATMENT, RECOVERY & REUSE PAGE 8

WASH, NUTRITION & HEALTH PAGE 9

WASH & MENSTRUAL HYGIENE PAGE 10

WASH & COVID-19 PAGE 11

# DRINKING WATER

## Comprendre la trajectoire des interventions de développement. Processus et réseaux d'acteurs dans trois projets d'eau potable

ADF, Jacob J.-P. & Lavigne Delville P., 2019 (in French)



What contributes to the "success" or "failure" of a development project? How can we understand the trajectory of interventions and their results? Analysing three water supply restructuring and extension projects in three countries (Burkina Faso, Ghana, Haiti), this study shows that the success of an intervention lies in its ability to bring together heterogeneous actors and goals and to build and sustain a socio-technical network.

## Rethinking the Economics of Rural Water in Africa

Oxford Review of Economic Policy, 2020 (in English)



This article explores why rural water is different for communities, schools, and health facilities, depending on the characteristics of scale, institutions, demand, and financing. It concludes with policy recommendations to (i) network rural services at scale, (ii) unlock rural payments by creating value, and (iii) design and test performance-based financing models at national and regional scales.

## The paradox of water pricing: dichotomies, dilemmas, and decisions

Oxford Review of Economic Policy, 2020 (in English)



This article delivers a public policy perspective on the dichotomies, dilemmas, and decisions of water pricing. First, the dichotomies between price and value, and costs, are defined to explain the paradox of water pricing: the price of water rarely equals its value and rarely covers its cost. Second, the dilemmas of water pricing are highlighted across efficiency and equity, objectives for water pricing, and the instruments available to decision-makers. Third, the challenges of decision-making are

evaluated and illustrated in relation to water pricing. Fourth, an adaptive process is provided that includes a participatory assessment of risks and options to guide water-pricing decision-making.

## Quality Unknown: The Invisible Water Crisis

World Bank, 2019 (in English)



The Invisible Water Crisis presents new evidence and new data that call urgent attention to the hidden dangers lying beneath the water's surface. It shows how poor water quality stalls economic progress, stymies human potential and reduces food production.





## Potabilisation des eaux de surface en Afrique de l'Ouest

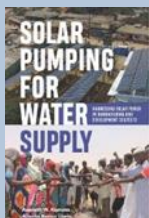
David F., Diop K., Sanchez A., Naulet F., Achouline S., GRET, 2020 (in French)



Combining theory and practice, this book describes and analyses the main drinking water treatment technologies used in the Senegal River valley to inform the selection of suitable treatment options - a process that can be applied to other West African contexts. This guide also provides recommendations for optimising treatment technology design and operation.

## Solar Pumping for Water Supply,

Practical Action, Asenath W. Kiprono & Alberto Ibáñez Llario, 2020 (in English)



This guide provides a state of the art review of solar water pumping technology that is combined with practical insights. It also addresses the economic and social aspects of operating and managing solar pumping systems. It is a reference document for solar technical practitioners at NGOs, UN and government agencies and the private sector, as well as for donors and policymakers.

## Water Integrity as an Opportunity: the Relationship between Climate Change Finance and the Water Sector

GIZ & WIN, 2019 (in English)



This policy brief provides an overview of challenges and opportunities concerning corruption in the water sector in the context of climate change finance. It addresses policymakers and practitioners from both sectors. The policy brief was drafted based on a literature review and interviews with experts from international and civil society organisations, as well as implementing entities.



# SANITATION

## A City Level Sanitation Study (Cuttack, Sambalpur, Paradeep and Subarnapur)

National Institute of Urban Affairs, 2018 (in English)



NIUA presents a series of research reports on India, including four urban sanitation plans developed for cities in Odisha, as well as urban sanitation research papers for the states and cities of Madhya Pradesh, Telangana, Odisha, Karnataka, Rajasthan, Uttarakhand, Jharkhand, and Jaipur. The aim of this research is to provide a documentary base for training and advocacy modules in order to promote decentralised sanitation systems.

- **Urban Wastewater Management in Karnataka**
- **Urban Wastewater Management in Madhya Pradesh**
- **Urban Wastewater Management in Odisha**
- **Urban Sanitation and Septage Management in Jharkhand**
- **Urban Wastewater Management in Rajasthan**
- **Urban Wastewater Management in Telangana**
- **Urban Faecal Sludge & Septage Management in Uttarakhand**
- **Poster 9 cities: Srinagar, Bhimtal, Devprayag, Doiwala, Bageshwar, New Theri, Bhowali, Haldwani, Dehradun (urban sanitation)**
- **Wastewater Management in Jaipur**

## The Reliable Planning of Sanitation Service Chain Solutions in Emergencies Compendium

Global Wash Cluster, EAWAG, SuSanA, 2018 (in English and French)



This Compendium is a comprehensive and well-structured online capacity development and decision support tool that allows real-time filtering and configuration of entire sanitation service chain solutions in emergency settings. It provides detailed information on key decision criteria for all tried and tested emergency sanitation technologies, information on cross-cutting issues, and available case studies relevant for making informed sanitation technology decisions in emergencies. The Compendium is available as a guide and also as an [online interactive eCompendium](#).

## Lessons learned from the national sanitation campaign in Njombe district, Tanzania

Safari J., et al. 2019 (in English)



Tanzania has been implementing the National Sanitation Campaign through a Community-Led Total Sanitation (CLTS) approach since 2012. Njombe District Council (DC) has been identified as being among the best-performing councils for implementing this sanitation campaign. A qualitative study was conducted to document how CLTS was carried out in Njombe DC, assess progress on CLTS implementation and define the success factors for CLTS implementation.

## Selecting Household Water Treatment Options on the Basis of World Health Organization Performance Testing Protocols

Bivins A., et al. 2019 (in English)



This research paper investigates grey-water treatment options based on World Health Organization performance testing protocols

## Economic cost analysis of low-cost sanitation technology options in informal settlement areas (case study: Soweto, Johannesburg)

Manga M., et al., 2020 (in English)



The aim of this research was to establish lifecycle costs for appropriate sanitation technologies in informal settlement areas. Three sanitation options were compared: simplified sewerage, urine diversion dry toilet (UDDT), and Ventilated Improved Pit (VIP) latrine. Three scenarios for simplified sewerage were considered: gravity flow into existing conventional sewers with treatment; new-build with pumping and treatment; and new-build gravity flow with treatment. The study revealed that simplified sewerage is the cheapest option for Soweto informal settlement areas, even when the costs of pumping and treatment are included.



## Citywide Inclusive Sanitation Through Scheduled Desludging Services: Emerging Experience From India

Mehta M. et al., 2019 (in English)



This article presents the approach used by Swachh Bharat Mission (Clean India Mission) to move toward "safely managed sanitation" in

line with target 6.2 of the Sustainable Development Goals. This paper first reviews the need for regular desludging of septic tanks. It then outlines the emerging experience of design and implementation of scheduled desludging for inclusive, equitable, and sustainable sanitation to achieve social and environmental benefits in two Indian cities.

## Opportunities for sustainable sanitation in climate action

SuSanA Working Group 3, 2019 (in English)



This factsheet shows the relevance of sustainable sanitation for the achievement of three key international climate change frameworks:

the Paris Agreement, the Sendai Framework and the 2030 Agenda.

Sanitation sector investment can advance the achievement of SDG targets, cut greenhouse gas emissions and significantly minimise disaster risk.

## State of the world's sanitation: An urgent call to transform sanitation for better health, environments, economies and societies

WHO, UNICEF, 2020 (in English)



This report presents the state of sanitation in the world today in order to increase awareness among Member States and all other stakeholders of the

challenges that remain to achieving SDG6 by 2030.



# OTHER WASH RESOURCES

## Review of Drivers and Barriers of Water and Sanitation Policies for Urban Informal Settlements in Low-Income and Middle-Income Countries

Sinharoy S.S. *et al.* 2019 (in English)



This study examines the factors and obstacles of water, sanitation and hygiene policies in urban informal settlements in low- and middle-income countries. The study examines the literature published between 2000 and 2018, with the evidence organised into six domains of drivers and barriers: economic, spatial, social, institutional, political and informational.

## Paradoxe entre une gratuité de service et une amélioration des performances dans le secteur de l'eau et de l'assainissement en Afrique : enjeu d'une contextualisation des outils de benchmarking et type de facturation

FASENG, UCAD, LAREM, Diop P.S., 2016 (in French)



This research proposes an equalisation-based invoicing system that guarantees positive economic impacts while maintaining WASH service momentum. The research also reviews and revisits benchmarking as a management tool and knowledge-sharing process that can help WASH services improve their performance.

## Millennium Water Alliance Bridge Program in Ethiopia

Sinharoy S.S. *et al.* 2019 (in English)

The Millennium Water Alliance has been promoting access to water, sanitation and hygiene (WASH) services in rural Ethiopia since 2004 and has produced a number of position papers.

- **Position Paper 1: District-Wide Strategic Planning for Universal Access to Safe and Sustainable WASH Services in Ethiopia.**
- **Position Paper 2: Service Delivery Models for Universal, Safe and Sustainable Water Services in Ethiopia**
- **Position Paper 3: Government-led monitoring for sustained water service delivery**
- **Position Paper 4: Financing universal, safe and sustainable water services in Ethiopia**
- **Position Paper 5: Capacity development in the WASH sector of Ethiopia**

## Reducing Inequalities - Policy Proposals for the Development Cooperation Agenda

Policy Paper, August 2020

David A. AFD, 2019 (in English)



Socio-economic inequalities continue to grow throughout the world, posing new development challenges. The AFD proposes five priorities for the international cooperation agenda in order to reverse the trend.

## Water and Development Technical Series

USAID, May 2020 (in English)

The Water and Development Technical Series is a set of technical briefs that provide guidance on important topics for developing and implementing water and sanitation activities in support of USAID's global strategy. These briefs provide recommendations for activity design, implementation, and monitoring, as well as links to additional resources

### Rural Water Services



### Rural Sanitation Services



### WASH and its Links to Nutrition



## Water Insecurity and Sanitation in Asia

ADB & LKY, 2019 (in English)



As Asia rapidly urbanises, providing water and sanitation services has become problematic.

This book brings together a collection of studies that discuss the recent developments in the water and sanitation sector in Asia and, most importantly, identify their spillover effects. This first attempt of its kind aims to give budget-constrained policymakers the incentive to introduce these approaches for the sustainable financing of water and sanitation infrastructure.

## Better knowledge for better management, complementarity between field and satellite data

PFE, 2019 (in English and French)



This study presents concrete examples of the use of satellite data to provide decision-makers with support on 3 major water resource and aquatic environment issues: the quantitative monitoring of water resources; water quality, biodiversity and ecological monitoring; and agricultural water uses.

## Building the Resilience of WSS Utilities to Climate Change and Other Threats: A Road Map

World Bank, 2018 (in English)



Water supply and sanitation (WSS) utilities are expected to become increasingly susceptible to the expected impacts of climate change. To help utilities incorporate resilience and robustness in their choices, this road map proposes a process in three phases that can inform the design of strategies necessary to WSS services provision.

## Make Me a Change Agent: An SBC Resource for WASH, Agriculture, and Livelihoods Activities

USAID, June 2020 (in English)



This is a training manual for trainers working with community-level workers in the water, sanitation and hygiene (WASH), agriculture and livelihoods sectors.

## Unraveling intractable water conflicts: the entanglement of science and politics in decision-making on large hydraulic infrastructure

HESS, Jonatan Godinez-Madrigal, 2020 (in English)



With a view to analysing the limitations of depoliticising water conflicts using an objective and scientific approach, this report focuses on the role played by socio-political processes in water conflicts using the case study of the Zapotillo dam and water transfer project in Mexico.

## Involving Communities. A Guide to the Negotiated Approach in Integrated Water Resources Management

Both ENDS and Gomukh Environmental Trust for Sustainable Development, 2019 (in English)



This guide describes the negotiated approach to water resource management, which involves closely involving local stakeholders in IWRM.

This guide shows how the institutional environment and national and international governance are essential for supporting IWRM community participation processes.

## Guide d'orientation pour une gestion participative et contractuelle de l'eau au Maroc

GIZ, Lisode, 2020 (in French)



This orientation guide is a theoretical and practical reference document for participatory and contractual water management in Morocco. It was produced as part of the "Support to Integrated Water Resources Management - AGIRE" cooperation programme implemented by Morocco, Germany and Switzerland, which was supported between January 2018 and June 2020 by Lisode, a cooperative consultancy that specialises in designing and implementing participatory processes.

This document is the result of two complementary approaches: capitalisation of water management practitioner and expert knowledge, and field experimentation.

To download a document click on the title or picture. To view the full list of documents and their references on our database, please click [here](#).



# SLUDGE TREATMENT AND RECOVERY

## Resource Recovery & Reuse Series,

International Water Management Institute (IWMI), SRHM (in English)

The RRR series presents summaries and reviews of research from the CGIAR Water, Land and Ecosystems (WLE) Programme's Resource Recovery and Reuse (RRR) sub-programme of applied research on the safe recovery of water, nutrients and energy from domestic and agro-industrial waste streams.

*A selection of recent documents in this series is provided below:*

### Guidelines and regulations for faecal sludge management from on-site sanitation facilities - Resource Recovery and Reuse Series 14

Jayathilake, N, 2019 (in English)



In low- and middle-income countries, the management of faecal sludge from on-site sanitation systems has received little attention over many decades, resulting in insufficient or missing regulations to guide investments and management options. To address this gap, this report examines existing and emerging guidelines and regula-

tions for faecal sludge management (FSM) along the sanitation service chain (user interface, containment, emptying, transport, treatment, recovery, reuse or disposal). It also draws empirical examples from guidelines across the globe to support policy-makers, planners, and sanitation and health officers, as well as consultants in low- and middle-income countries in the development and design of local and national FSM guidelines and regulations.

### Training manual for faecal sludge-based compost production and application - Resource Recovery and Reuse Series 15

Nikiema, J, 2020 (in English)



Based on IWMI's experience, this training manual has been compiled for plant managers and trainers to help ensure that staff involved in FS treatment and production adopt best practices in all processes involved.

### Introducing co-composting to faecal sludge treatment plants in Benin and Burkina Faso: a logistical and financial assessment - Resource Recovery and Reuse Series 17

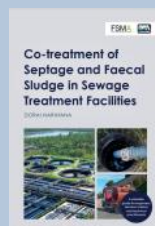
Nikiema, J, 2020 (in English)



Based on primary data from faecal sludge treatment plants in three West African urban regions (Ouagadougou in Burkina Faso, Grand Accra in Ghana and Grand Nokoué in Benin), faecal sludge collection and treatment patterns were analysed to identify possible scenarios for resource recovery through the co-composting of faecal sludge.

### Co-Treatment of Septage and Faecal Sludge in Sewage Treatment Facilities: A Guide for Planners and Implementers

FSMA, Dorai Narayana, March 2020 (in English)



This guide is aimed at local and national sanitation sector technicians and decision-makers and provides information and insights to help them evaluate and consider the option of co-treating faecal sludge and septage.





# WASH & NUTRITION AND HEALTH

## Water and Nutrition: A Framework for Action

World Bank, 2019 (in English)



This document presents an integrated water and nutrition framework to aid in understanding the various ways that water impacts early child nutrition, drawing on the three dimensions of water security: water quantity, adequate supply of water resources; water quality, water that is free of contamination; and water accessibility, reliable availability to all people, economies and ecosystems.

## Practical Pathways to Integrate Nutrition and Water, Sanitation and Hygiene (WASH)

ACF and WaterAid, 2019 (in French and English)



This paper focuses on research in Madagascar, Cambodia and Ethiopia that reveals opportunities and pathways for combining WASH and nutrition efforts to better tackle undernutrition.

## WASH' Nutrition A Practical Guidebook

ACF, 2017 (in French, English, Spanish and Arabic)



This example-based practical guide provides practitioners with usable information and tools so that they can design and implement effective WASH and nutrition programmes.

## Improved health and behaviour through integration of food hygiene and WASH

SHARE Consortium, 2019 (in English)



This case study aims to document and share lessons learned from Madagascar's experience in integrating the water, sanitation and hygiene (WASH) and nutrition sectors at policy, institutional and practical levels.

## Towards Effective Integration of Nutrition and Water, Sanitation and Hygiene - the experience of Madagascar

WaterAid, Action contre la Faim, 2019 (in English, French, and Portuguese)



This case study documents and shares the lessons learned from Madagascar's institutional, practical and policy-level integration of the country's water, sanitation and hygiene (WASH) and nutrition sectors.

## Designing integrated interventions to improve nutrition and WASH behaviors in Kenya.

Pilot and Feasibility Studies, Feb. 2020 (in English)



This study highlights the need to take a multi-sectoral, integrated approach that integrates contextually relevant behaviour change theories with the experiential knowledge

gleaned from stakeholders into the design of interventions that seek to reduce child stunting.

## WASH and health working together

### A 'how-to' guide for Neglected Tropical Disease programmes

WHO, 2019 (in English and French)



This toolkit provides step-by-step guidance to neglected tropical disease (NTD) programme managers and their partners on how to engage and work collaboratively with the WASH community to improve the delivery of WASH services to underserved populations affected by many NTDs.

## Water, sanitation, hygiene and health. A primer for health professionals

WHO, 2019 (in English)



The purpose of this primer is to guide health professionals on engaging with WASH-related issues. It provides an overview of WASH interventions and the status of WASH services globally and outlines key linkages with health. It provides examples of key actions that health actors can take to ensure WASH efforts effectively protect public health and highlights the World Health Organization (WHO) activities to support those actions.

# WASH & MENSTRUAL HYGIENE

**What's missing in MHM?  
Moving beyond hygiene in  
menstrual hygiene manage-  
ment,**  
SRHM, Dec. 2019 (in English)



Drawing in part on original research conducted in mid-western Nepal, this article argues for a broader understanding of menstruation than that which is currently presented in mainstream international development discourse. In line with emerging ideas within both the NGO sector and academic literature, this article proposes a definition centred instead on rights as opposed to hygiene.

**Menstrual hygiene manage-  
ment among Syrian refugee  
women in the Bekaa**  
Majed R. & Touma H., OXFAM,  
June 2020 (in English)



This research paper explores the challenges related to menstrual hygiene faced by Syrian refugee women residing in informal tented settlements (ITS) in the Bekaa valley in Lebanon. It provides programmatic recommendations for integrating menstrual hygiene management into humanitarian responses, particularly in the water, sanitation, protection, education and health sectors.

**Measurement in the study of  
menstrual health and hy-  
giene: A systematic review  
and audit**  
Hennegan J., 2019 (in English)



This article highlights the importance of developing measurement tools to improve the study of menstrual hygiene and also contains a definition and analysis of the concepts and issues involved.

**Guide to menstrual hygiene  
materials**

UNICEF, Brooke Yamakoshi (in English)



This document provides guidance on the selection and procurement of appropriate materials and supplies for menstrual hygiene management, particularly during humanitarian responses.

**Female-friendly public and  
community toilets**

UNICEF WSUP - WaterAid

Oct. 2018 (in English, French, Spanish and Portuguese)



This guide provides guidance on how to take the needs of women and girls into account in the planning, design, renovation and management of public and community toilets. The recommendations are based on existing literature, expert opinion and analysis of international pioneering experience.





# HYGIENE & COVID-19

## COVID-19 and WASH: Mitigating the socio-economic impacts on the Water, Sanitation and Hygiene (WASH) Sector

Global WASH Cluster, Sanitation and Water for All - UNICEF (in English)



This document explains the impacts of COVID-19 on the WASH sector and outlines WASH sector priorities. It calls for immediate collective and strategic action by national governments, services, suppliers, partners and donors to quickly and effectively coordinate response efforts to ensure: uninterrupted global supply chains for WASH commodities and services, and maintained and increased funding with no diversion away from existing commitments and priorities set for the WASH sector.

## UNICEF Fact Sheet: Handwashing Stations and Supplies for the COVID-19 response

UNICEF (in English)



This document provides an overview of available handwashing station designs for policymakers, implementers, and procurement officers.

It places special emphasis on local manufacturing and procurement and complements existing technical and programmatic guidance on WASH and COVID-19.

## Technical guide for handwashing facilities in public places and buildings

WaterAid, 2020 (in English)



This technical guide provides guidance on best practice for permanent or semi-permanent handwashing facilities in public places and buildings.

## Handwashing Compendium for Low Resource Settings: A Living Document

Institute of Development Studies, June 2020 (in English, French, Spanish and Arabic)



This Compendium provides examples of technologies that can be used for handwashing facilities in households, public places, and institutions (schools, prisons, etc.). The Compendium contains a brief description and illustrations of each handwashing facility, plus advantages and disadvantages and accessibility con-

siderations. It also explains how to adapt the facilities to local settings and available materials.

## Water, Sanitation, Hygiene, and Waste Management for SARS-CoV-2, the virus that causes COVID-19

WHO, April 2020 (in English, French, Spanish, Arabic and Chinese)



This guide for water and sanitation practitioners and providers and healthcare providers contains information on hand hygiene, sanitation, protecting WASH workers and supporting the continuation and strengthening of WASH services, particularly in settings where WASH services are limited.



# Resources

A review of resources and publications on WASH in developing countries



Washtubs in Mali

As there is a constant wealth of information being produced on the WASH sector, we regularly compile and publish *Resources*, a short literature review available in both French and English. Although by no means exhaustive, we hope that this selection of resources and articles from recent French and English publications will provide you with some practical and easily accessible references.

Find the previous issues at:

[www.pseau.org/fr/biblio-ressources](http://www.pseau.org/fr/biblio-ressources)



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