Contents

Editorial
349 Limited services? The role of shared sanitation in the 2030 Agenda for Sustainable Development
Barbara Evans, Andrés Hueso, Richard Johnston, Guy Norman, Eddy Pérez, Tom Slaymaker and Sophie Trémolet

Review Paper
352 Temporal and thematic trends in water, sanitation and hygiene (WaSH) research in Pacific Island Countries: a systematic review
Morgan C. MacDonald, Terence Chan, Mark Elliott, Annika Kearton, Katherine F. Shields, Dani J. Barrington, Regina T. Souter, Bronwyn R. Powell, Jamie Bartram and Wade L. Hadwen

Research Paper
369 The role of packaged water in meeting global targets on improved water access

Research Paper
378 Investigation on microbial inactivation and urea decomposition in human urine during thermal storage
Xiaoqin Zhou, Yajie Li, Zifu Li, Yue Xi, Sayed Mohammad Nazim Uddin and Yang Zhang

Research Paper
387 Using business models in designing market-based solutions: the case of fluoride treatment systems
Teshome L. Yami, David A. Sabatini and Lowell W. Busenitz

Research Paper
396 Adapting the IWA water balance to intermittent water supply and flat-rate tariffs without customer metering
Miran Mastaller and Philipp Klingel

Research Paper
407 Cultural preferences for the methods and motivation of sanitation infrastructure development
Miriam E. Hacker and Jessica A. Kaminsky

Research Paper
416 A study of the effect of water quality-related variables on some age-related diseases adjusted for other well-known risk factors: a multivariate multilevel study
Kapuruge Nishika Oshadini Ranathunga and M. R. Sooriyarachchi
Research Paper
426 Working with complexity: a participatory systems-based process for planning and evaluating rural water, sanitation and hygiene services
Jeffrey P. Walters, Kate Neely and Karla Pozo

Research Paper
436 Mobility up the sanitation ladder following community-led total sanitation in rural Zambia
Scott Russpatrick, Amy Tiwari, Laurie Markle, Engervell Musonda, Anne Mutunda, Nicolas Osbert, John Pinfold, Anna Winters, Benjamin Winters and David A. Larsen

Research Paper
445 Sanitation value chains in low density settings in Indonesia and Vietnam: impetus for a rethink to achieve pro-poor outcomes
Juliet Willetts, Anna Gero, Akhmad Akbar Susamto, Ryan Sanjaya, Thanh Doan Trieu, Janina Murta and Naomi Carrard

Research Paper
455 The sanitation and urban agriculture nexus: urine collection and application as fertilizer in São Paulo, Brazil
Mariana C. Chrispim, William A. Tarpeh, Delhi T. P. Salinas and Marcelo A. Nolasco

Research Paper
466 Technology choices in scaling up sanitation can significantly affect greenhouse gas emissions and the fertiliser gap in India
Michal Kulak, Nimish Shah, Niteen Sawant, Nicole Unger and Henry King

Research Paper
477 The impact of low-flow season on source drinking water quality, Rosetta branch, Egypt
K. Ghodeif, R. Wahaab and S. Sorour

Research Paper
485 Microbiological contamination of water pans in Baringo County
Edith J. Kurui, George M. Ogendi and Wilkister N. Moturi

Research Paper
495 Investigating unaccounted for water and its components in Zomba City water supply system, Malawi
Zvikombororo Hoko and Jessy Alida Chipwaila

Practical Paper
507 Methods for controlling stored urine odor in resource-oriented sanitation
Shervin Hashemi and Mooyoung Han

Practical Paper
515 Sustainability-inspired composting latrine design
D. Kierys and B. Barkdoll

Practical Paper
521 Developing water and sanitation services in refugee settings from emergency to sustainability – the case of Zaatari Camp in Jordan
A. W. C. van der Helm, A. Bhai, F. Coloni, W. J. G. Koning and P. T. de Bakker

Short Communication
528 Getting a foot on the sanitation ladder: user satisfaction and willingness to pay for improved public toilets in Accra, Ghana
Simon Mariwah, Kate Hampshire and Constance Owusu-Antwi