



Wastewater Management

A UN-Water Analytical Brief

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List of abbreviations

BOD	Biochemical Oxygen Demand
COD	Chemical Oxygen Demand
EU	European Union
FAO	Food and Agriculture Organization
IPPC	Integrated Pollution Prevention and Control
ISO	International Organization for Standardization
MDG	Millennium Development Goal
O&M	Operations and Maintenance
OECD	Organisation for Economic Co-operation and Development
PPP	Public-Private Partnership
SDG	Sustainable Development Goal
SUDS	Sustainable Urban Drainage System
UWWT	Urban Waste Water Treatment
WFD	Water Framework Directive
WHO	World Health Organization



Section 1

Background

As the timeframe for the Millennium Development Goals (MDG) nears completion, minds are turning to the post-2015 development agenda. This is accompanied by the realisation that the focus on drinking-water and sanitation without due attention being paid to the end products of water and sanitation provision (i.e. wastewater) may have exacerbated some of the water quality problems seen globally. It is increasingly being recognized that the issues of wastewater management and water quality have cross-linkages with a range of other water- and non-water issues, not least in respect of the water, energy and food nexus. It has also been acknowledged that wastewater management clearly plays a role in achieving future water security in a world where water stress will increase (OECD, 2012). Against this backdrop, there is an emerging consensus on the need for a dedicated water goal in the post-2015 Development Agenda, one which includes explicit recognition of the importance of good wastewater management and its contribution to protecting water quality.

This report looks at some of the problems caused by the neglect of wastewater management, but also at the benefits and opportunities that can be realized through proper attention to this area, and highlights

why it is crucial that wastewater management and water quality stop being the 'poor relations' and receive attention in their own right.

Wastewater can have a number of definitions. The approach taken in this report is a very broad definition following that outlined in the UNEP/UNHABITAT document 'Sick Water?'.

Thus, wastewater is defined as "a combination of one or more of:

- domestic effluent consisting of blackwater (excreta, urine and faecal sludge) and greywater (kitchen and bathing wastewater);
- water from commercial establishments and institutions, including hospitals;
- industrial effluent, stormwater and other urban run-off;
- agricultural, horticultural and aquaculture effluent, either dissolved or as suspended matter" (Corcoran et al. 2010).

Although, using this definition, the term 'wastewater' clearly encompasses domestic, commercial, industrial,

agricultural components and also faecal sludge, these are sometimes covered separately in order to clarify or highlight the importance of the individual components or wastewater streams.

The report is structured into eight sections. The first two sections provide the context of the report and look, briefly, at why poor wastewater management is a problem. Section 3 builds on the Introduction and sets out the current situation – in terms of water quality issues and considers the main wastewater components (domestic, industrial and agricultural) in turn. Section 4 outlines some of the wastewater management options available and discusses aspects that need to be considered before implementing a system. Section 5 highlights the potential that wastewater has as a valuable resource. Section 6 looks at how wastewater management is being considered in the context of the Post-2015 Development Agenda and section 7 brings together some of the issues that need to be considered in acting upon wastewater management and water quality issues, including the need for strong governance and data gathering. Finally, section 8 presents the conclusions of the report and highlights the need to prioritize wastewater management.

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