GLOBAL STATUS REPORT ON WATER SAFETY PLANS:

A review of proactive risk assessment and risk management practices to ensure the safety of drinking-water

World Health Organization

IWA the international water association

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International Water Association (IWA)

The International Water Association (IWA), a global network of water professionals, is a nongovernmental organization (NGO) in Official Relations with WHO. WHO's network of NGOs in Official Relations contributes to promote the policies, strategies and programmes derived from the decisions of the Organization's governing bodies. IWA's role as an NGO in Official Relations with WHO focuses on supporting countries to implement intersectoral policies and interventions for protecting health from immediate and longer term environmental threats. A long history of cooperation exits, built on previous joint activities between WHO and IWA's predecessors, the International Water Supply Association and the International Water Quality Association. A key area of cooperation is drinking-water safety.

IWA's Bonn Charter for Safe Drinking Water promotes the application of water safety plans (WSPs) as expressed in the WHO Guidelines for Drinking-water Quality. (Revisions to the WHO Guidelines will be taken as revisions to the Bonn Charter in as much as the Bonn Charter refers to the Guidelines.) IWA promotes WSPs with WHO through collaboration agreements, and through its membership of water utilities, research institutes, industry, and individual professionals. IWA's work spans the continuum between research and practice, covering all facets of the water cycle. IWA is a registered charity in England (Company registered in England No. 3597005 Registered Charity (England) No. 1076690).

Foreword

Millions of people in cities, towns and villages in all regions of the world lack access to safe drinking-water. Without fulfilment of this basic human right, significant public health consequences manifest to impede socioeconomic development and poverty reduction. Through the Sustainable Development Goals (SDGs), countries around the world have expressed strong political will to ensure drinking-water is universally safe.

Measurement of SDG Target 6.1 will be carried out through an indicator "safely managed drinking-water services", which emphasizes the need for structured actions to prevent contamination throughout the water supply system. In addition, and for the first time ever, water quality data will be monitored worldwide through direct measurements of faecal contamination and priority chemicals. This is a dramatic departure from the Millennium Development Goals (MDG) era, during which international monitoring was exclusively focused on access to water and the policy response was to extend water supply to the unserved, but not necessarily to improve water quality among those with service.

SUSTAINABLE DEVELOPMENT GOALS 2015–2030

Goal 6: Ensure the availability and sustainable management of water and sanitation for all.

Target 6.1: By 2030, achieve universal and equitable access to safe and affordable drinking-water for all.

Priority indicator: Percentage of population using safely managed drinking-water services.

While important gains were made to increase access to improved water supplies during the MDG era, an estimated 663 million people remain without access to an improved source of drinking-water. Many more still lack access to safe drinking-water, with at least 1.8 billion people relying on water sources that are faecally contaminated (WHO, 2017). Increased attention to proactive water supply system management is needed to bridge this gap between improved supplies and safe supplies. Policy and planning action in the SDG period will now have to respond to monitoring data showing unsafe drinking-water. Therefore, now more than ever is the time for policy-makers and practitioners to embrace the concept of water safety planning.

Water safety planning is a comprehensive risk assessment and risk management approach that encompasses all steps in a drinking-water supply chain, from catchment to consumer. The water safety plan (WSP) framework organizes and systematizes a long history of best management practices adopted by water professionals, and it is widely recognized as the most reliable and effective way to manage drinking-water supplies to safeguard public health. Inherently flexible and fully adaptable to local conditions, WSP principles and concepts can be applied to the full range of system types, sizes and resource levels to ensure water safety.

The WSP framework was codified as best practice in 2004 in the third edition of the World Health Organization (WHO) Guidelines for Drinking-water Quality (GDWQ) and the International Water Association (IWA) Bonn Charter for Safe Drinking Water. In the decade since, WHO and IWA have collaborated closely to raise WSP awareness, build capacity and develop guidance materials and practical tools to support successful WSP implementation. To understand WSP progress to date and to inform the future WSP support agenda, WHO and IWA have undertaken a global review of WSP experiences. This report, which summarizes data from a WSP survey instrument and additional sources, provides a picture of WSP uptake globally based on information gathered from 118 countries representing every region of the world. It presents information on WSP implementation and the integration of WSPs into the policy environment. It also explores WSP benefits, challenges and future priorities. We hope this report will serve as a useful resource for policy-makers, practitioners and other stakeholders to inform and strengthen the planning and practice of WSP implementation.

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Acronyms and abbreviations

ADB	Asian Development Bank
CR	climate-resilient
DFID	Department for International Development (United Kingdom)
DWI	Drinking Water Inspectorate (United Kingdom)
DWSS	Department of Water Supply and Sanitation (Nepal)
EPA	Environmental Protection Agency (United States of America)
EU	European Union
GDWQ	Guidelines for Drinking-water Quality
IA	impact assessment
IWA	International Water Association
MDGs	Millennium Development Goals
NGO	nongovernmental organization
NTDs	neglected tropical diseases
OFID	OPEC Fund for International Development
Ofwat	Water Services Regulation Authority (United Kingdom)
SDGs	Sustainable Development Goals
UBA	Umweltbundesamt (German Environment Agency)
WASH	water, sanitation and hygiene
WHO	World Health Organization
WSP	water safety plan