*Desalination and Water Treatment* www.deswater.com

doi: 10.5004/dwt.2020.25498



جمعية علوم وتقنية المياه Water Sciences and Technology Association



## THINK BIG, START SMALL and SCALE UP: A road map to support country-level implementation of water safety plans and sanitation safety plans

## Hamed Bakir

Environmental Health Interventions & Regional Advisor on Water, Sanitation, Climate Change and Health, World Health Organization Eastern Mediterranean Regional Office/Centre for Environmental Health Action, Amman, Jordan, email: bakirh@who.int

In 2004, the 3rd edition of WHO Guidelines for Drinking Water Quality recommended the use of Water Safety Plans (WSPs). In 2015, WHO introduced the Sanitation Safety Planning (SSP) manual. The use of comprehensive risk-based management framework is considered a very effective means of managing water supply and sanitation systems. There are many risk-based systems available to water and sanitation utilities such as ISO9001 and Hazard Analysis and Critical Control Point.

In 2004, WHO guidelines on Drinking Water Quality recommended the WSPs. In 2015, WHO introduced the SSP manual. Both approaches are promoted by WHO and the International Water Association as the most reliable and effective approaches for managing water and sanitation systems and for ensuring reliable drinking water safety and sanitation safety. WSP and SSP are risk assessment and risk management tools comprising:

- A systematic process of hazard identification along the entire chain of a specific drinking water supply system and the entire chain of a specific sanitation system;
- Implementation and monitoring of risk management control measures (improvement plan) by the service providers;
- Independent verification by a surveillance agency.

WSP and SSP are adaptable to all types and sizes of water supply, and can be effectively applied in all socioeconomic settings. The WSP and the SSP approaches are increasingly being adopted globally as best practices for managing water and sanitation systems. Yet promoters of WSP and SSP must overcome barriers based on misconception such as: developing a WSP makes it seem as though water is not safe; utility will incur high cost of WSP or SSP development; SSP or WSP is additional workload; SSP or WSP is a plan to be developed by a hired consultant.

Driving forces to introducing WSP and SSP within a country may include: (a) commitment to public health and safety of water and sanitation (for this purpose national regulators and health authorities may promote supportive legislation and policies) and (b) enhanced performance, compliance to regulations and reduced costs of the water and sanitation systems (for this purpose, an active surveillance system is necessary). A benchmarking system helps utilities to measure progress over time and compare the performance of utilities.

A strategic roadmap to introducing and scaling up the use of WSP and SSP in a country involves several steps that can be implemented in a manner adapted to the country context: (1) understand and appreciate the benefits; (2) establish a national preliminary vision with milestones and timelines; (3) attain practical experience through demonstration intervention; (4) review the preliminary visions and establish a national plan for scaling up; (5) establish supportive mechanisms (e.g., training programmes, codes of practice, tools, utility–utility partnerships); (6) establish policy and regulatory instruments (empower institutions, legislative instruments, financial instruments); (7) implement WSP and SSP and verify their effectiveness; (8) review experience periodically, share lessons and improve.

Presented at the 13th Gulf Water Conference – Water in the GCC: Challenges and Innovative Solutions. 12–14 March 2019, Kuwait

1944-3994/1944-3986 $\ensuremath{\mathbb{C}}$  2020 Desalination Publications. All rights reserved.