

WHO events addressing public health priorities

Regional training on sanitation and wastewater safety planning¹

Countries in the Eastern Mediterranean Region (EMR) are among the most water-stressed countries in the world (1). Therefore, recovering water, nutrients and energy from liquid and solid wastes (sewage sludge) generated in sanitation systems is a high priority, especially where resources for agricultural production are already limited and competition for clean water, nutrients and energy is increasing. However, inadequate sanitation and unsafe use of wastewater and excreta poses important public health risks through exposure to a range of microbial and chemical contaminants (2).

In order to address this issue, a training workshop was organized by WHO Regional Centre for Environmental Health Activities on Sanitation/wastewater Safety Planning (SSP), 24–27 July 2017, in Amman, Jordan (3). The workshop was held in response to the request of several countries for training on the SSP manual *Sanitation Safety Planning: Manual for Safe Use and Disposal of Wastewater, Greywater and Excreta* (4). The training aimed to introduce SSP as a risk-based management tool for the safe use and disposal of wastewater in agriculture and aquaculture to EMR countries. The SSP manual provides a stepwise process for the implementation of the *WHO Guidelines for Safe Use of Wastewater, Excreta and Greywater 2006* (2). In addition, Sustainable Development Goals (SDGs) indicators SDG 6.2 and 6.3 on sanitation (5) require countries to report on the safe management and treatment of wastewater and sludge. Therefore, it was timely to provide training on the use of the SSP manual since its use will help countries to attain the SDG targets.

Twenty-seven officials attended the meeting, including representatives from ministries of health and ministries responsible for water, sanitation and agriculture, professors from teaching and research institutes, and representatives from relevant organizations. A field trip to Madaba Wastewater Treatment Plant, Madaba, Jordan, was also organized for the participants. Countries represented included: Egypt, Islamic Republic of Iran, Jordan, Morocco, Oman, Sudan and Tunisia. In his opening address, Dr Basel Al-Yousfi, Director, WHO Centre for Environmental Health Action, highlighted the purpose of sanitation interventions in protecting public health. He emphasized the importance of intersectoral

cooperation when implementing SSP in order to identify health risks in the sanitation system, and agree on improvements and regular monitoring.

The use of treated wastewater is reported in irrigating fodder crops, grains and vegetables. Participants' concerns over irrigation with wastewater included food safety issues and the health of agricultural workers and their families. Participants also expressed concern over the economic implications due to exported crops being refused due to noncompliance with importing countries' standards. It was agreed that the application of SSP will reduce the risks to safety of crops, farm workers and food handlers. In addition, adoption of the farm safety planning concept when applying SSP can address the hazardous risks present in the sanitation of the food chain, and SSP principles can be usefully applied to the use of biosolids.

In growing urban areas where sewer systems are limited, faecal sludge management (non-sewered systems) is likely to become part of the new norm of urban sanitation. In this context, SSP offers a very powerful tool to help manage the safety of all elements of the sanitation chain. Training of trainers on SSP followed by spread of knowledge to other concerned stakeholders will facilitate introduction and adoption of the approach within the countries represented at the workshop. Participants also discussed the roadmap to introduce and scale up the risk-based management of SSP to support country-level implementation of water safety plans.

Recommendations

To Member States

- Develop a national vision and roadmap to introduce and scale up the risk-based management of sanitation safety.
- Build capacity in application of SSP to safe wastewater use in irrigation by:
 - advocating and sensitizing stakeholders on SSP
 - facilitating further training of concerned stakeholders on SSP using the training manual (4) provided by WHO

¹ This report is extracted from the Summary report on the Regional training workshop on sanitation/wastewater safety planning, Amman, Jordan, 27–24 July 2017 (http://applications.emro.who.int/docs/IC_Meet_Rep_20154_2017_EN.pdf?ua=1, accessed 3 December 2017).

- implementing pilot applications of sanitation safety plans at the farm level.

To WHO

- Provide technical support to ministries of health and other stakeholders in developing a national vision and roadmap on introducing and scaling up application of SSP
- Support training for ministry of health staff and other stakeholders on SSP application when using recycled wastewater for irrigation

- Develop a farm safety plan template to guide countries in listing and addressing risks along the sanitation/food safety chain
- Provide technical support and guidance and resources to ministries of health on their regulatory and surveillance role in sanitation safety when using treated wastewater in agriculture.

References

1. UN Water. Water scarcity. New York: United Nations; 2016 (<http://www.unwater.org/water-facts/scarcity>, accessed 3 December 2017).
2. World Health Organization/United Nations Environment Programme. Safe use of wastewater, excreta and greywater. Geneva: World Health Organization; 2006 (http://apps.who.int/iris/bitstream/10665/78265/1/9241546824_eng.pdf, accessed 3 December 2017).
3. World Health Organization Regional Office for the Eastern Mediterranean (EMRO). Summary report on the regional training workshop on sanitation/wastewater safety planning. Cairo: EMRO; 2017 (http://applications.emro.who.int/docs/IC_Meet_Rep_2017_20154_EN.pdf?ua=1, accessed 3 December 2017).
4. World Health Organization. Sanitation safety planning: manual for safe use and disposal of wastewater, greywater and excreta. Geneva: World Health Organization; 2016 (http://apps.who.int/iris/bitstream/10665/171753/1/9789241549240_eng.pdf, accessed 5 December 2017).
5. United Nations. Sustainable development goal 6. New York: United Nations; 2016 (<https://sustainabledevelopment.un.org/sdg6>, accessed 3 December 2017).