

Testing the new 2006 WHO guidelines in real-life situations

In the wake of publication of the third edition of the WHO Guidelines for the Safe Use of Wastewater, Excreta and Greywater in Agriculture and Aquaculture (2006), three international agencies and around 10 local partners have embarked on a set of projects in Ghana, Jordan and Senegal to test out the methods and procedures proposed in these guidelines in different urban and periurban farming settings, to reduce risk where comprehensive wastewater treatment is too expensive and not feasible in the near term.

The guidelines look at how to develop health-based targets that may differ under certain contexts. Furthermore, they outline how to do a comparative assessment of risks and effective management at the various steps in the chain of events from the production of wastewater and excreta, their use in agricultural production through to the sale and consumption of produce. The guidelines also present an enhanced monitoring methodology that builds on lessons learned since the last set of guidelines was published in 1989. At the core of this framework is the acknowledgement that a multi-disciplinary approach is required that includes experience, skills and capacities that go beyond those required for simple measurements of water quality. The 2006 guidelines represent a significant shift from the 1989 guidelines in that instead of emphasising water quality standards, emphasis is now placed on health-based targets and support for a myriad of management options to meet them. What is not known is how feasible many of the proposed management options are in particular contexts.

The initiative for this activity came from the International Development Research Centre (IDRC), which recognised that the process-oriented approach proposed by the new edition of the guidelines would need testing in real-life situations in order to identify capacity gaps and opportunities for capacity strengthening. This is particularly true for countries faced with large groups of farmers using wastewater, but also for those faced with resource constraints.

WHO and IDRC defined the objectives of the project as follows:

- To identify economically, technically and socially appropriate non-treatment options for health protection. These can include crop restriction, wastewater, excreta and greywater application techniques that reduce levels of exposure to hazards, as well as exposure control measures, such as the use

of personal protective equipment, hygiene education, food safety measures, etc., as promoted by the WHO Guidelines.

- To study the feasibility and potential effectiveness of the non-treatment health protection measures in reducing the disease burden associated with the use of wastewater, excreta and greywater.
- To increase awareness of the guidelines in the international development community and among national governments.
- To synthesise research findings into a joint document that will help low-income countries adapt the WHO guidelines for effective application in their own unique circumstances.

The final output of the research will be a guidance document that can help practitioners apply the methods suggested in the 2006 Guidelines.

IDRC, WHO and FAO (which agreed at the project outset to participate in supporting a fourth case study) accepted the following projects:

- Ghana (Kumasi): Evaluation of non-treatment options for maximising the public health benefits of WHO guidelines governing the use of wastewater in urban vegetable production.
- Ghana (Tamale): Minimising health risks from using excreta and greywater by poor urban and periurban farmers in the Tamale municipality.
- Jordan: Safe use of greywater for agriculture in Jerash Refugee Camp: focus on technical, institutional and managerial aspects of non-treatment options.
- Senegal (Dakar): Integration and application of the guidelines on wastewater and excreta reuse in agriculture.

The projects started their operations in April 2007 and in this year all four pilots will complete their research. In addition, the project will be presenting preliminary results and an information guide at World Water Week in Stockholm. In March, 2009, the final project workshop will take place in Amman and final results will be shared amongst all of the teams.

The agencies involved are the International Development Research Centre (IDRC), based in Ottawa, Canada, the World Health Organization (WHO) and the Food and Agriculture Organization (FAO) of the United Nations. Contacts:

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The WHO Guidelines can be ordered from WHO Geneva, or downloaded from www.who.int/water_sanitation_health.