



Title: Importance of Developing Standards for Greywater Reuse in Palestine

استخدام بإعادة خاصة فلسطينية معايير تطوير أهمية المعالجة الرمادية المياه

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**Abstract:**

Increasing pressure to conserve water resources has prompted the idea that the separation of greywater from sewerage through the use of two separate systems may enable greywater to be reused at the household level for such non-potable demands as toilet flushing or landscape irrigation. This research deals with the importance of developing onsite treated greywater reuse standards for Palestine from experts and beneficiaries' point of view. Knowing the importance of developing guidelines and standards will better represent the delicate balance between protection of public health and the levels of risk posed by greywater re-use within the context of everyday human activity, and make an effort to identify areas where there is either an expectation for responsibility or a personal acceptance of responsibility with regard to public or personal health. Two questionnaires have been designed for this purpose. The onsite greywater treatment plants (GWTPs) beneficiaries and experts opinions have been investigated through two detailed surveys. This research is of great importance for policy makers, researchers, people who develop and enforce standards and regulations, educators, environmental and public health scientists, engineers, and others. There is a common encouragement of treated greywater re-use among water and environmental experts as 91.1% of them supported that but provision of proper monitoring and technical solutions is very significant. In spite of that, up-to-date, there are no onsite treated greywater reuse standards and guidelines for Palestine and most of experts (95%) and beneficiaries (97.5%) confirm the importance of having Palestinian standards for treated greywater reuse. Financial issues are the main incentives for applying this system at the household level for agricultural purposes, which is socially accepted. External funds should be secured for implementing more greywater treatment units taking into consideration that long term monitoring, maintenance and sampling should be important components of such projects.