

Abstract

The possibility of social acceptance to reuse recycled sewage water in agriculture in Ramallah and Al- Biereh Governate "A case study: Deir Debwan"

. Treated waste water has been considered a potential source for domestic and agricultural use, especially in the scared–water resources countries as in Palestine. The major obstacles against using treated waste water almost similar in different countries, including Palestine, which are related to people awareness, understanding and acceptability to use.

In order to investigate the degree of people's awareness and acceptability, the socio-economic and religious related issues as well as the feasibility of using treated waste water, a study has been conducted in Deir Debwan village located in the central Palestinian mountains. The study uses the random sample questionnaire research method as well as interview with key persons interested in sewage water treatment and usage.

The study revealed that acceptability of using treated waste water and the willing to pay for it increased by increasing the education level, the degree of fresh water shortage, the increase in the income, and the level of people's understanding of its environmental hazard. In addition, the study showed that acceptability increased by decreasing the people's contact to treated waste water; being the highest acceptability for industry rather than for house hold due to different degrees of direct contact.

As moving from collected rain water, grey water and black water, people's preferences to use in agriculture decreased, with more preference toward

irrigating agricultural products that need to be well-cooked as well as olives and forage crops. The willing to use crops irrigated with treated sewage water also increased by decreasing its price.

The study also showed that none of the population related factors (i.e. sex, age and the number of family members) has significant relation with the acceptability to use treated sewage water.

Based on these results, it is recommended to increase the people's degree of awareness using different methods of publicity and media, so as to increase their acceptability and cooperation. In addition, it is recommended to strength the legal aspects related to the waste water treatment, usage and its environmental monitoring and consequences.