

Abstract

Water pollution in Palestinian central mountains was studied in terms of the environmental situation in the study area, water resources and pollution, the socio- economic aspects, all that to evaluate the quality of the water resources and its suitability for drinking and domestic use ,causes of pollution and description of the problems related to it in terms of quality, find the solutions, suggestions, and recommendations that are suitable to increase the public awareness of people to show the importance of water in their life and keeping it clean and away from all kinds of pollution, decreasing causes of water and environmental pollution. Ramalla Western Villages were selected as study area, the research focused on studying the water resources like springs, cisterns, and water supply networks in terms of Chemical, Physical and biological parameters.

The methodology used in this research started with data collection about all water and environmental related data from different water institutions, sampling of water from springs, cisterns, water networks and analyzing the samples with cooperation with PWA Laboratory in Ramallah. Questionnaire was prepared and distributed in the study area villages (Beitunia, Ein Arik, Ein Qinya, Deir ibzi', and Bettelou) these questionnaires were analyzed using MS Excel, maps were prepared using ARC GIS. The results of analysis for both quality data and questionnaires were used to adapt the recommendations to overcome the problem of pollution, and suggesting a strategy to assist to increase the efficiency to struggle against the water pollution.

The result of this research showed that the problem of water pollution is related mainly to the surrounding environment around the water resources, lack of public awareness and poverty, absence of wastewater networks and suitable landfills, absence the Governmental and non Governmental roles and conflicts among water related institutions, and finally the effects of Israeli settlements that dump its untreated wastewater and solid waste near the Palestinian water resources or in the recharge zones. All these factors played as an important player in increasing the water pollution. the causes of polluting the water are presented random dumping sites, untreated wastewater from either Palestinian communities like Ramallah or Israeli settlements, spread of cesspits, agricultural activities and using fertilizers and pesticides,.. etc.

The research included a strategy to assist in overcoming or decreasing the problem of water pollution in the study area. A demonstration how that can be achieved through cooperation among the different water institution were constructed to gather efforts and increase efficiency in planning and execution.