

Gender Empowerment and Treated Wastewater Reuse in Ein Qinia Village, Ramallah - Palestine

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Abstract

The rights to water and sanitation are essential elements of the right to an adequate standard of living and to the highest attainable standard of physical, economic, social and cultural needs. In urban and peri-urban areas of Palestine, where agricultural landscape is replaced by an anonymous built environment and the domestic and industrial sectors dominate the use of scarce freshwater resources, treated wastewater can serve as a new source of water. Women and men are recognized by having different interests, needs, and gain different benefits from the use and management of water resources. In Palestine, women are disproportionately affected by lack of access to sanitation and adequate quantities of safe water. This research aims to improve the empowerment of communities and individuals, particularly women, on the acceptance of wastewater treatment projects and the reuse of treated wastewater. Research was carried out at the Al-Tireh quarter and EinQinyia village in Ramallah about whether or not training women in treated wastewater reuse can increase their awareness and acceptance regarding the reuse of treated wastewater from the Al-Tireh Wastewater Treatment Plant. The importance of creating knowledge and awareness toward sustainable wastewater reuse in urban areas is a strategic need for the Palestinian public, researchers and decision makers. Women shows high acceptance of reusing treated wastewater for agricultural purposes. A comparative study was carried out in Ramoun Treated wastewater in the eastern side of Ramallah and targeted the empowerment of women inside the village from socio-economical - environmental point of views. Females in the study population show a good image of the acceptance of the idea of wastewater reuse. The community will be more respective to the idea of reuse the treated wastewater. For that purpose, the establishment of baseline data in women's empowerment and

wastewater reuse is identified as a critical need to create a more gender-sensitive approach of projects on treated wastewater.

Key Words: empowerment, wastewater treatment, treated wastewater reuse, Palestine, West Bank.

Introduction

Gender refers to the different roles, rights, and responsibilities of men and women and the relations between them. Gender does not simply refer to women or men, but to the way their qualities, behaviors, and identities are determined through the process of socialization. The different positions of women and men are influenced by historical, religious, economic and cultural realities. It has become increasingly accepted that women should play an equal role in water management and that this role could be enhanced through the strategy of gender mainstreaming. The importance of involving both women and men in the management of water and sanitation and access-related questions has been recognized at the global level, starting from the 1977 United Nations Water Conference at Mar del Plata, the International Drinking Water and Sanitation Decade (1981-90) and the International Conference on Water and the Environment in Dublin (January 1992), which explicitly recognizes the central role of women in the provision, management and safe guarding of water. Reference is also made to the involvement of women in water management in Agenda 21 (chapter 18) and the Johannesburg Plan of Implementation. The differences and inequalities between women and men influence how individuals respond to changes in water resources management. Understanding gender roles, relations, and inequalities can help explain the choices people make and their different options. Involving both women and men in integrated water resources initiatives likely increases project effectiveness and efficiency. Sanitation is one of the major challenges faced in overcoming gender inequalities. Inadequate access to safe, hygienic and private sanitation facilities is a source of shame, physical discomfort and insecurity for millions of women across the world. Cultural norms frequently make it unacceptable for women to be seen defecating—forcing many women to leave home before dawn or after nightfall to maintain privacy.

In most developing countries women and girls are responsible for collecting and using water for household purposes while mainly men make decisions about water resources management and development at both local and national levels. In a rapidly changing world where water scarcity, climate variability and climate change, disasters and conflicts are affecting access to safe and sustainable water resources, women are especially vulnerable. Prevailing social inequalities mean women typically have less means and capacity to cope and adapt and consequently bear a disproportional burden of increased competition and climate change induced consequences on water. On one hand, women, as the guardians of rural household hygiene, are mainly the users of water while men are the providers and managers of water resources (World Bank 2002). Social equity is embedded in action that supports the sustainable management and use of water resources. Social equity requires that a fair share of water benefits and responsibilities be transmitted to men and women (Katsi 2008).

Treated Wastewater Management and Sociality

Population growth and rapid urbanization are intensifying pressure on freshwater resources in the West Bank for example the deficit in water budget was 64.3 million M³ in 2010 (PWA 2012). The lack of water quantity and quality as well as the high level of water demand are leading to increasing water scarcity and stress. As a result there is a growing justification for the use of non-conventional water resources, such as (treated) urban wastewater. Wastewater reuse is especially important in urban and pre-urban areas which a characteristic agricultural landscape is replaced by an anonymous built environment, disconnected from the particularities of place and more privatized (JACKSON, 1984). Where wastewater can serve as a new source of water. However, many dimensions must be considered for successful wastewater reuse practices (Winlad & Simpson-Hebert, 2004; Liberti, 1999) and one of those dimensions is social involvement (Dayal et. al, 2000). A number of approaches are possible for improving social involvement in waste water reuse projects, such as the empowerment of communities and individuals, particularly women depending on their roles. Women and men are recognized by having different interests, needs, and earn different benefits from, the availableness, use and management of water. More attention should be given for the women involvement in the design and management of reuse of treated wastewater in Palestinian communities treatment and reuse projects (Arafa et.al 2007). And so women`s roles could be clearly recognized and identified and supported as beneficiaries and users of the treated wastewater if they have the ability to make a decision according reusing of wastewater. This

could be also by increasing awareness among the women as well as men regarding the wastewater reuse. Women awareness around water reuse is considered as strategic needs that can raise their empowerment indicator because it affects women roles for the acceptance of reusing treated wastewater (Bader & Ghanem 2013). Investigating on women training can increase their awareness in the issues of reuse of treated wastewater on their acceptance of reusing the treated wastewater. The importance of creating knowledge and awareness toward sustainable wastewater reuse in urban areas, even for communities that have water networks becomes a strategic need for the Palestinian public, researchers as well as decision makers, that women should be involved in. The establishment of baseline data in women's empowerment and wastewater reuse is a critical need to more gender approached of treated wastewater projects. The recent research aimed to improve the empowerment of communities and individuals (mainly women) in the Palestinian urban areas on the acceptance of wastewater treatment projects and the reuse of treated wastewater. Then to investigate the effect of women's training in the issues of reuse of treated wastewater on their acceptance of reuse of that treated wastewater.

There were many literatures focused on empowerment as a sole issue (Oxaal& Baden, 1997; Sardenberg , 2008). Some arguments focused on the concept of empowerment and tried to define it (Moser, 1993; Batliwala, 1993; Razavi& Moller, 1995; Kabeer, 1999; Sen, 1999; Narayan,2002; Naryan, 2006; Holland, 2006). While some of the authors identified a set of empowerment indicators (Malhotra, 2002; Aklire et.al, 2012). In specific researches that focused on gender and water management, there were few literatures argued about gender, empowerment and water management (Smith et, al. 2004; Robinson et al. 2005; Achere, 2005; Ivens, 2008; Bahri, 2009; Bader, 2014). On the other hand, there were a rare literatures linked between gender or women empowerment and wastewater reuse as critical dimension for Integrated water resources management (Van koppen, 2001; Huyer & Sikoska 2003; Katsi, 2003; Malkawi. 2003; Leino, 2007; Mark & Winniefridah, 2008; Aladuwaka & Momsen, 2010; Bader & Ghanem, 2013).

Gender and Treated Wastewater in Palestine

There is a lack of information about the Gender and treated wastewater nexus in Palestine. Few studies were conducted about the connection between Gender, water and treated

wastewater. Water Quality as Indicator of Gender Equity in Palestinian Rural Areas in Tulkarem District was studied by Bader (2014). Women's triple roles in rural areas are gender-based and subject to social norms. Social roles prohibit women from gaining the necessary knowledge to carry out these roles in the safest and most productive way. It is concluded that involving women in environmental education will be in grant recognition of their traditional knowledge and important role regarding sustainable water management. Urban agriculture and eco-sanitation to study the strategic potential toward poverty alleviation in the Gaza Strip was studied by Al - Najar (2007). It is concluded that the rapid increase in urban population, land scarcity and the challenge of urban food security has accelerated the urban agriculture in terms of water resources in the Gaza Strip. Urban agriculture and the pressures it exerts on water supply have been largely ignored by planning institutions. The Integrated Sanitation Project in the Artas Valley incorporates a combination of sanitation concepts and techniques. The project aims to demonstrate an affordable rural sanitation alternative for densely populated mountain communities where on-plot sanitation is not feasible (Gert de Bruijne, 2000).

Women in Palestine are disproportionately affected by lack of access to sanitation and adequate quantities of safe water. Among women's regular household chores are the provision and use of water for a number of purposes. Women are often primarily responsible for caring for children who become sick due to unclean water or inadequate sanitation. Lack of women's participation in decision-making relating to water and sanitation can mean that their voices are not heard and their needs are not prioritized. As a result, women feel added pressure during these times of intense work. The rights to water and sanitation have been recognized as essential elements of the right to an adequate standard of living and the right to the highest attainable standard of physical and mental health, enshrined in the International Covenant on Economic, Social and Cultural Rights (ICESCR, 1966). Almost two million people live without sanitation services in Palestine. Only 32% of Palestinians in the West Bank are connected to sanitation networks, while the rest use cesspits or septic tanks. Agricultural work occupies a significant interest in the reality of the Palestinian developmental experiences, especially for the women's sociality and national development Strategy. The Palestinian agricultural sector in rural areas affected half the population, whom depend totally or partially on it (Qatamesh, 2010). Women's empowerment can be defined as the process through which an individual woman becomes conscious, gain self confidence and

the ability to address inequality between women and men. Empowerment is more recognition of the concepts of women as an actor in the economic, social and environmental development, and therefore it seeks to eliminate all manifestations of excellence against her, and women's empowerment aims to acquire elements of the socio-economic improvement of the conditions and create an interaction with the community helping to develop skills and abilities, balance and stability and ending a case distinction between men and women. Economic empowerment means the emergence of women's economic participation issue began on a global regional and local level and that the inability of the community to the advancement and development of women's participation, and demonstrate that anti-poverty states there is women's economic participation represent half of society, economic engagement leads to higher rates of economic growth. Environmental empowerment means that women have a significant role in environmental management, especially rural women. As the role of educated women to go to environmental issues and environmental awareness and work to get seats for women in the ministries concerning environment. Social empowerment attended to gender equality concept that gender inequality is not conducive to development, thus empowering women socially helps create a socio-economic system does not distinguish between men and women and does not limit their abilities.

Solomon, (2004) studied the role of humanitarian associations enable women to share important life, studying under the general practice of social work. The purpose of the study is to determine the women's contributions in enabling women to participate in public life. The main findings are the strong relationship between the role of the women's empowerment work that suit their skills, develop their work skills that was more pronounced in rural areas than urban areas, and there is a relationship between women's work the societies and understanding of women's rights and empowerment Exercise by increasing awareness and define their rights and obligations. A Study titled draft boom women development and its relationship to enable women of Jordan: valuation study (Sheep and Iron, 2011). In General, where adequacy stood at increasing and strengthening empowerment of women economically by (50%), and socially by (81%) Which has led to increased confidence to participate themselves and increase their capacity to make decisions by and her family in various areas.

Abdel Gawad (2009) studied the strategy of empowerment to help women with children to confront their problems. The study aimed to reveal about the role of civil

societies in the face of problems of women with children from strategy through empowerment and disclosure about the existence of differences with statistical significance between using strategy and help women with children to confront their problems. Abdul Latif (2008)) studied the role of civil societies in enabling women to study status of Association advancement and development of women. The study aimed to identify the role of associations in civil empowerment of women as one of the doorways in the important achievement of sustainable development and that of course study the case of a civil societies of central branches in some provinces which have focused their attentions to enable women with children in areas which are random Association advancement and development of women of Egypt. Alsamalouty (2007) studied the role of civil societies in the empowerment of women. The study aimed to identify the reality of the role of civil societies in Egypt towards the empowerment of women, from where the size of the associations and women's capacity and size of the participation of women in civil societies have different. The study used descriptive methodology analytic, and was a tool of study identify. The study found the number of outcomes notably: double role of civil associations in supporting and empowering women and participation, lack of interest in organizing programs and services that are designed to serve women. Lack of programs that provide civil societies to develop awareness among women in the context of social, political and the ocean to achieve empowerment.

Methodology

The methodology includes the qualitative techniques such as field observations and focusing groups and quantitative methodologies such as a survey that was conducted in the research study.

Geography of the Study Area

Ein Qinya is a village located to the north west of Ramallah, the total population of the village was estimated at 1200 (PCPS, 2007) (Figure 1). The village is located at an altitude of 543 m above sea level, with an average annual rainfall of about 597 mm. It is estimated that the average per family members are seven. This village is located very close to an Israeli settlement Dolev; Israelis restrict development of the village for the reason of their extension. Most of the families depend on agriculture, they irrigate their lands based on springs yield.

Currently locals depends on three type of water supply to fulfill their basic needs : Rain water harvesting (RWH), conveying water by buckets from springs , Purchasing water tankers –in particular in summer. Locals are facing water shortage in summer, most families cannot afford the high price of water supplied by tankers.

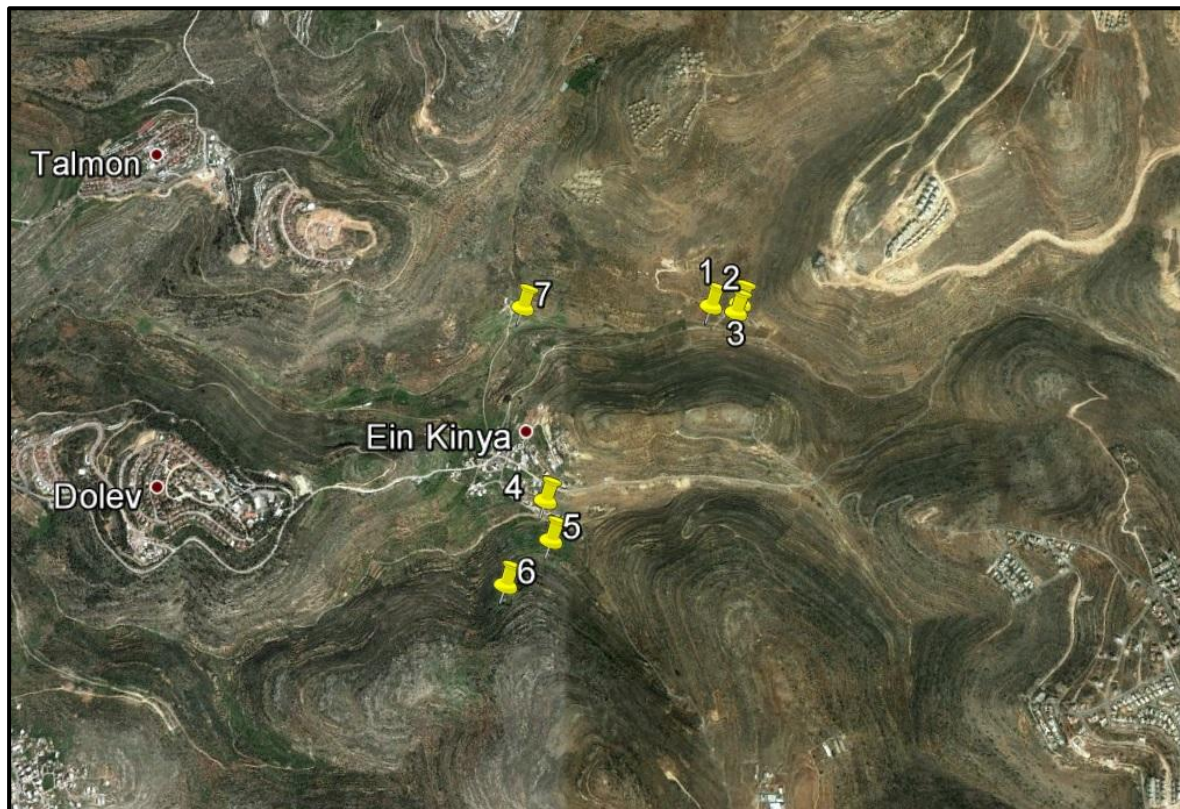


Figure 1: The location map of the study area, where the springs are located

In 2010, and at a cost of two and a half million dollars from the Municipal Fund and the Ministry of Finance, a 22-kilometer sewage network has been created for Al Tireh neighborhood, which also includes areas outside Al Tireh neighborhood, western Ramallah. The station serves the largest area possible with a capacity of two thousand cubic meters per day, and without the need for pumping stations. The technology used in the Al Tireh sanitation plans is an activated sludge and biological membranes filtration the sensitivity of the location where natural springs are, including Ein Qinyia. The treatment plant was operated in December 2013 with its purposed capacity (Ramallah Municipality, 2014) .

Participant observations

Many field trips were conducted to the study area, each trip started from Al-Tireh treatment plant towards Ein Qinyia village along the path near Wadi Aldelb. Data were collected by writing notes and by photographs. The observations focused on two sets of data: descriptive in which the observer attempts to capture a word-picture of the setting, actions and conversations; and reflection in which the observer records thoughts, ideas, questions and concerns based on the observations and interviews. The following items were discussed through the research; The faunae and flora species, Physical characteristics of the treated wastewater stream and Human and social environment in the area.

Workshop

Workshop with local communities, experts and beneficiaries was conducted. Twenty five persons; 3 experts, 2 decision makers, 10 men and 10 women, attended the workshop. The main issue was raised in the workshop is identifying opportunities to sustain dialogue about waste water treatment and reuse between the research community local council and municipality and other decision-makers and local communities. Gaining an understanding of problems with respect to wastewater treatment for small communities and raising its awareness for local community.

Questionnaire Analyses

A questionnaire including gender - treated wastewater and the acceptance for the reuse of the treated wastewater was designed. A roughly selected sample of 30 farmers from Ein Qinyia inhabitants was interviewed. The questionnaire focused on the following main issues women and community empowerment index, social acceptance - awareness impact on acceptance of treated wastewater and Empowerment impact on acceptance of treated wastewater reuse.

Statistical Analysis

The data collected from field observations and workshop participants were analysed and presented qualitatively. The data collected by survey were analyzed using SPSS (Statistical Package for Social Science) program for windows- Release 18.0.0, SPSS[®] Inc. (2009).

Alkire Methodology

Women`s empowerment in agriculture was analyzed using Alkire methodology that illustrates five domains of women empowerment: ‘(1) production, (2) decision making power over productive resources, (3) control over use of income, (4) leadership in the community, and (5) time use’ (Alkire et al, 2012), those domains were used in recent study to assess women empowerment in Ein Qiniya.

Results and Discussion

Human Environmental Interactions

Human Environmental Interactions can be defined as interactions between the human social system and (the “rest” of) the ecosystem. Human social systems and ecosystems are complex adaptive systems (Marten, 2001), which means social that people in certain environmental system adapt to, depend on and modify their social behaviors according their surrounded environment, for example; at Ein Qinyia, herder (Bedouin) people from Bedouins depended on grazing because they did not have property and so they lived in the valley around water stream, moreover, they use the stream as domestic water resource because they had a very poor infra structure (no electricity, no water network...etc.). On other hand, rural people lived in the village had better infrastructure as well as there was an electricity and water network and they are depending on farming. Their farms were near the water stream. This interaction reflected the correspondence between the social life and environmental context which was best described by demographic transition theory, and cultural ecology theory (Moran, 2010).

Dialogue about waste water treatment and reuse

The participatory techniques through workshop employed in this study revealed that significant environmental improvements have been achieved through waste water treatment, including improved water resources protection, rural agriculture opportunities, better access of the communities to clean water resources, and the potential to address domestic agriculture imbalances in water resource flows. The treatment projects have, to date, been less successful in their goal of increasing agricultural water resources, and protecting springs water. However, the research revealed that other aspects of community development were

addressed, if not more important, than increasing agricultural water portion. In terms of appropriate roles for decision makers and researchers, the study provided evidence that communities were more than willing to identify their needs and interests like water resources management when specific authorities are unable to do so. In providing advice, training, and raising awareness for local communities, researchers and experts have an important role to play. The resources of decision makers are therefore best employed in regulating, coordinating and implementing wastewater treatment projects with all stockholders. This research has also added to the limited information on waste water treatment in EinQinyia, especially with regard to issues of gender, rural agriculture, health risks and the most appropriate roles for all actors in the wastewater treatment and integrated water resources management sector.

Questionnaire Analyses

Women Empowerment

Results show that in 50%, only one of the females of the family members were engaged in farming, this would usually be the mother, at the same time Respondents confirmed that decision related to agricultural production are made by the male while in only 40% of the cases is the female involved and 76.9 % did not use land on a personal basis (Figure 2). Those results reflected that females were not considered as active members to participate in production process, and so they were disempowered in production domain.

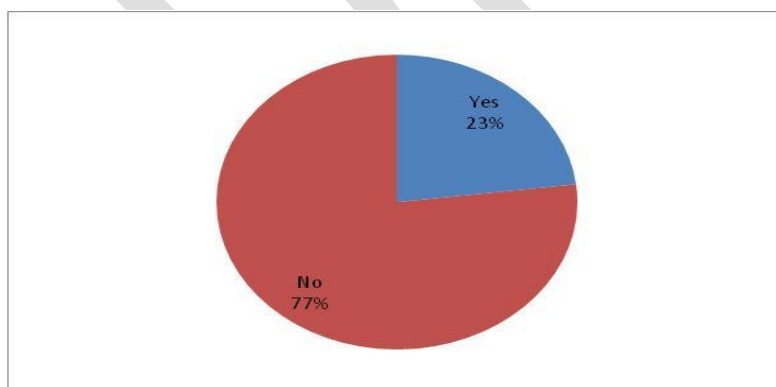


Figure 2: land use on a personal basis

A total of 60% of the sample cultivate privately owned land, while 30% work on land that is rented. Also results indicated that expenditures, notably input costs impact the decisions

made by the respondents in terms of production including the type of crops grown. The land property and decision over resources were dominated by men in most cases as the results illustrated that the male in the household, being either the husband or the father, make the decision on how income is spent (64%), while only 16% of the sample report that decisions are made together, this situation also improve less women empowerment. Over 80% of the sample depended on the male in the family as the breadwinner for the household's income. Moreover, the majority of the respondents (66.7%) were not employed, indicating that most were in fact housewives which depended on their spouses for their income.

The vast majority of the respondents were not members of any type of organizations or groups such as farmers' associations, etc. Of the 11% who belonged to organizations all belonged to professional associations. On the other hand, One-third of the respondents that reported being prevented claim that it was due to their gender, one-third refer it to their social position while the rest think that it was because of their economic situation or political affiliation. While, surprisingly, 67% of the sample do not participate and/or are not interested in participating in elections but when talking about leisure time; Almost 63% of the sample believe that they have enough time to rest which means that women are empowered in term of time domain, although those indictors said that women were disempowerment especially that the education level achieved by the respondents, the overall sample was approximately spilt into thirds ranging between primary (0 - 6 years of schooling), secondary (7 - 12 years of schooling) and undergraduate/university degrees (Figure 3). While the distribution of the respondents across age categories varies indicates that the majority of the respondents are younger than 31 (42.9%). This reflects the less empowerment for young uneducated women according to Alkire argument (Alkire et al, 2012).

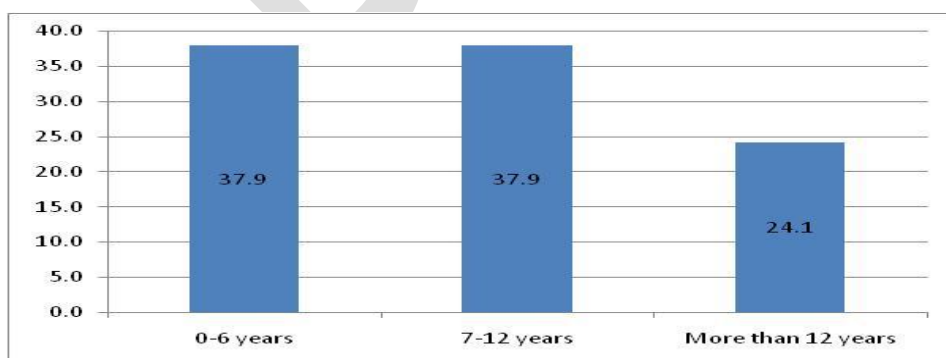


Figure 3: Education levels for the sample population

Acceptance of treated wastewater reuse

The majority agreed to reuse treated wastewater for different purposes (Figure 4). Those who refused to reuse treated wastewater are due to psychological reasons (71%) and health concerns. Although, the vast majority of the respondents believed that treated wastewater can contribute to the solution but will not have a significant impact on water shortage issues but will positively impact the environment (Table 1). This indicates that people had the desire to reuse water but most of the sample (about 61%) did not have any background information on wastewater treatment plants, none have small-scale treatment units at their homes.

Table 1: Impact of reusing wastewater

Treated wastewater contribute to the solution	Percentage of respondents
Yes, partially	42.9
Yes but not severe	50.0
No	7.1
Total	100.0

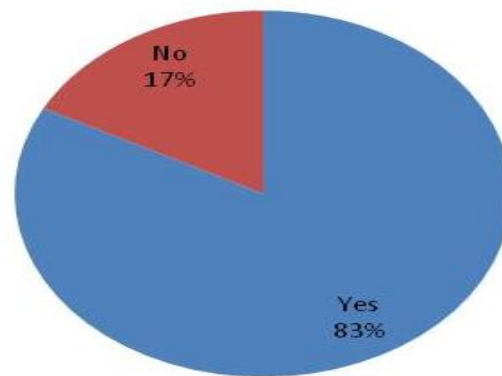


Figure 4: Acceptability to reuse treated wastewater

Awareness toward treated waste water reuse

Most of the respondents had never participated in any training courses/workshops on wastewater treatment and reuse. Of those who have participated 50% were involved in events at least twice. Most of the opportunities were provided by non-governmental organizations. at the same time, respondents believed that experts/specialist would be the most capable of influencing peoples' willingness to reuse treated wastewater (Figure 5). All confirmed the necessity of awareness raising activities.

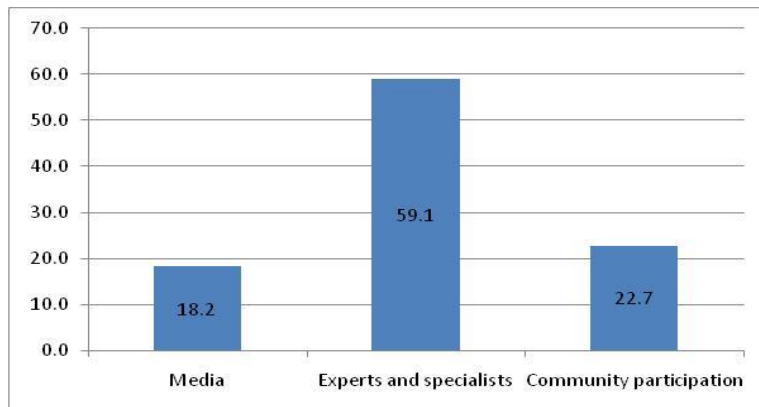


Figure 5: Most influential groups on willingness to reuse treated wastewater

The impact of women empowerment toward the acceptance of treated wastewater

Most of the respondents were confident in their ability to convince their spouses to reuse wastewater. While they were less confident in their ability to convince their children and their communities with most expecting obstacles mainly being cultural and financial. This trend of confident related to empowerment in terms of leadership. Decision making, access over resources for production, while one is more empowered, it will be highly confidence to change others perceptions that could be a positive tool for increase social acceptance for reuse.

Comparative Study of Women Empowerment in reusing the treated wastewater in Ramon Area - Ramallah

A comparative study was carried out in Ramoun Treated wastewater in the eastern side of Ramallah. The study targeted the empowerment of women inside the village from socio-economical - environmental point of views. The village lies on the eastern slopes of the West Bank, which gave the importance of the treated wastewater from the flowing of the treated wastewater toward eastern by gravity. This will ease the possibility of the usage of the treated wastewater from the village inhabitants, especially women and from the locations which lies down stream of the Waste Water Treatment Plant (WWTP). The work is more important in preventing pollution to the springs located in the foot of the mountains in Jericho District of Dyuk, Nuweima ans Shusan springs. Ramon Village rises 750 meters above sea level. The population of the village is about 3360 (PCPS, 2016). The village suffers from the wastewater

problems in the absence of sanitary system inside the village. The permission of building and installing a WWTP was authorized from the PWA in 2012 and the WWTP operation was in 2014. The Plant was built with the complementary sanitation system inside the village and the irrigation network for the Treated wastewater as outlets. The WWTP used the same technology of Al Tireh Plant in Ramallah. The farmers are using the wastewater in medium scale in the village and it was noted the treated waste water quality is good. The analyzed samples showed that the TWW has a BOD of 20 mg/L, TSS of 30 mg/L and TN of 50 mg/L which contains good organics needed compounds for plant development. The work aimed to find out the role and empowerment of women in the re-use of treated wastewater in Ramon. This consists of a questionnaire of 66 questions were distributed to all random samples females (40 persons) in Ramon area.

It was shown that 50% of the respondents are connected to disposal sewage system network, 38% are using cesspits, 10% are using endocrine drilling, and 2% resort to other ways (Figure 6). 58% of the study sample agree that the wastewater is necessary to preserve the environment treatment, while 42% do not agree that it is necessary and this percentage indicate a good awareness about the importance of waste water to the women of the village address.

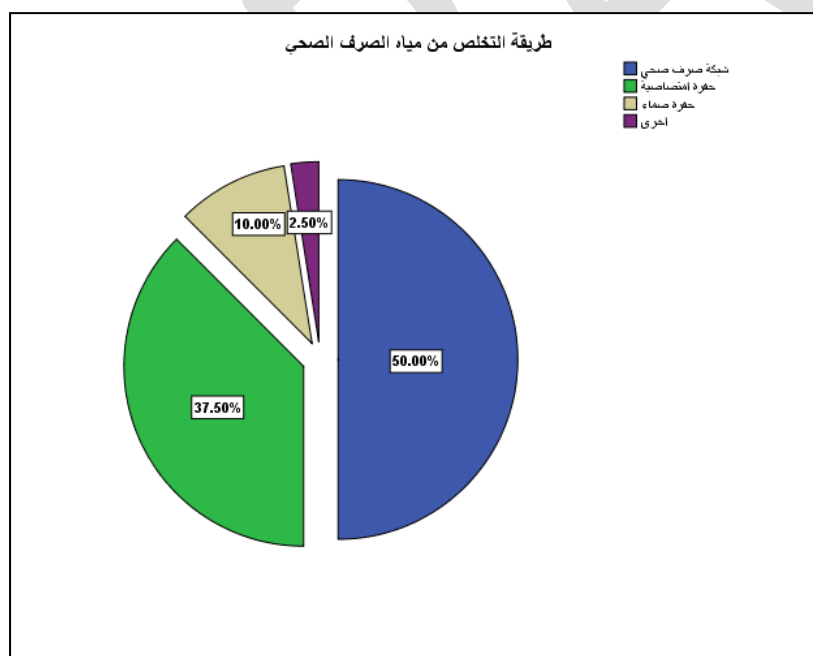


Figure 6: The disposal sanitation system in Ramon village

65% of the study sample respondents does not have a problem in the use of wastewater, while 35% have no objection to the idea of wastewater reuse. It shows that 55% of the study sample had convinced to re-use waste water, 30% agree to use it, but in somehow 15% disagree to use the treated wastewater. The acceptance of individuals to use treated wastewater for drinking, shows that only 35% agree to use it for drinking, 15% disagree, and 50% are not sure of the extent of their acceptance of the idea. This shows that there is still not a bit to accept the use of treated wastewater in areas pertaining to food and drink, but these percentages also show that there is a possibility to be used in the case prompted the conditions for use. As for the reasons that result in non-acceptance of the idea of wastewater reuse were as follows; 70% answered that the reason is a healthy, 23% answered that cultural, and 7% say it of personal reasons (Figure 7). It is clear that the largest percentage of non-acceptance is a health reason and this shows that people are not confident because of the extent of this cleaner, healthier water for the none trusted work to increase treated water confidence.

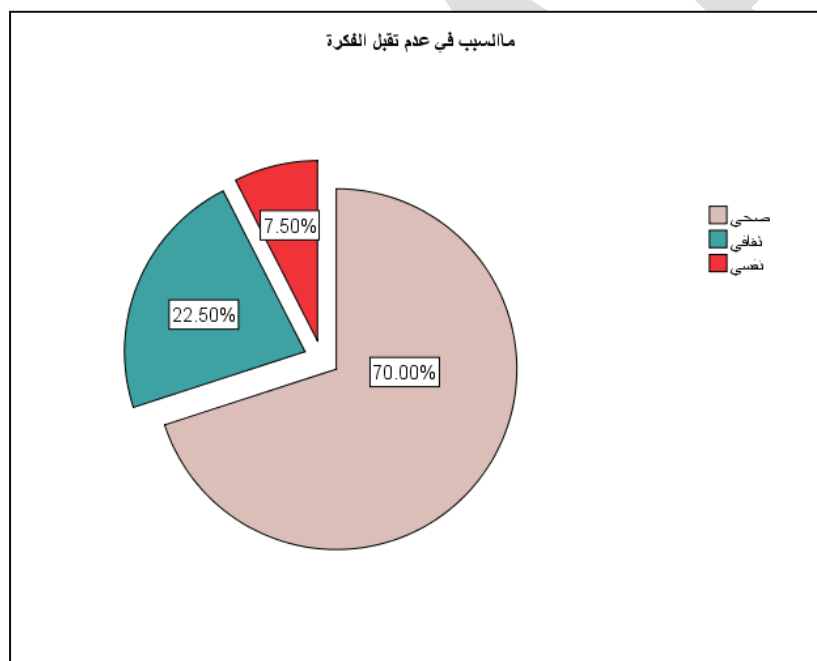


Figure 7: The reasons of none accepting

Conclusion

The study showed that even Al-Tireh wastewater treatment plant was built to treat a sewage from urban area, but its effluent affected a pre -urban and rural environment. It increased water flow in wadi stream, providing ecosystem with an extra amount of water

for faunas and floras, but in other side, it affected the quality of fresh water resources (springs), so further treatment and quality control for the effluent should be considered, especially that recent study gave an evidence about social acceptance of reusing the treated effluent. In order to enhance treated wastewater reuse in rural community, awareness rising is a critical issue particularly for disempowered communities. Collective and individual empowerment (mainly women) impact the acceptance of nontraditional water resources like treated water. This impact comes in terms of creating a new chance to access and control of water resources, to increase the agency of communities and individuals toward those resources and to achieve their goals of more economic and social values, like increasing incomes, improving their ability to make a change and so to meet gender practical and strategic need like a sustainable agricultural water resource and a clean environment.

A comparative study of the women empowerment in reusing of treated wastewater is carried out in Ramoon village in the eastern side of Ramallah indicates that the existence of a greater awareness among the educated class of the women of the village about the importance and benefits of treated wastewater was found. In case of water crises and scarcity, the people like to resort to water reservoirs and springs more from their resort for wastewater water treatment. The reasons for that are healthy and cultural. In addition to that the idea of accepting wastewater treatment faces several difficulties of cultural, financial, social and religious reasons. There is a strong need for the awareness of people about the reuse of treated wastewater and its importance in adding other unconventional water sources in quantitative point of views. The study population is believed that the position to change this idea and accepted is either the same person or the community. Females in the study population show a good image of the acceptance of the idea of wastewater reuse. The community will be more respective to the idea of reuse of treated wastewater if they do not belong to any food production and reuse it for industries such as stone industry or for the purposes of irrigation of ornamental plants or cleaning. The media and experts are most categories that have the ability to influence in the community and increasing acceptance of the idea of the use of treated water followed by the truth that wastewater treatment is necessary to preserve the environment. The Ramon village has a good sewerage system. After the conducted workshop in the village the percentage of the participated women (40 persons) of reusing wastewater for agriculture is increased and the role of women in society has to be increased.

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