

Impacts of Domestic Water Supply On Women In Jerash Governorate: Health, Safety And Income



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Authors: Anwar Nezami, Saad Al-Nawasra, Shaimaa Abu Labbad, Najat Nasser Oqda

Editors: Hayat Al-Shoubaki, Safaa Al-Moumani

Translator: Abeer Abu Saud

Design: Chuang, Chun-Chiao

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1 Executive Summary

The water sector is one of the most important sectors for human beings' existence, as it is necessary for the developmental, economic and social processes, and for the production of energy and food. In light of the escalating repercussions of the water crisis in many countries of the world, and the lack of access to safely managed drinking water services for nearly 2.2 billion people, demands began for improving the water situation from a human rights perspective and to consider it a human rights issue. This is based on the fact that the continuous increase in the world population requires creating a balance between all commercial demands on water resources, and providing water sufficiency especially to women and girls in this context.¹

Jordan faces major water challenges as a result of the surrounding regional conditions, which resulted in an increase in the population and facing several challenges in obtaining Jordan's water shares with neighbouring countries. Added to that are the climate changes and the accompanying fluctuations in the rainy season, an increase in the rate of evaporation, and a lack of renewable water sources, all of which contributed to the widening of the gap between demand and the available quantities of water.²

According to government data issued by the Ministry of Water and Irrigation (MWI), Jordan's need for water is about 3 million cubic meters per day, which includes all uses (domestic, agricultural, industrial, tourism, etc.). Only 90 cubic meters is the per capita share of water in Jordan, compared with the international water poverty line of about 500 cubic meters per person, which is almost five times the current level in the Kingdom, and thus individuals in Jordan are among the poorest in the world in terms of access to water.³

This policy brief is designed to identify the status of domestic water supply in Jerash Governorate, specifically the Al-Mirad area (Sakib, Al-Hawayyah, and Al-Husayniyyat), and how it impacts on women's lives. The policy brief concluded that the scarcity of water resources in Al-Mirad area led to a decrease in the household's share, which impacted women's economic, social, as well as on health and psychological status.

This policy brief put forth a number of suggested recommendations aimed at finding solutions to the challenges arising from the water supply situation and women's attempts to confront them:

- **First:** Gender mainstreaming in water issues in cooperation between MWI, the Jordanian National Commission For Women (JNCW), donors, consultants and relevant authorities.
- **Second:** Raising awareness about the role of women in managing, saving and preserving water in cooperation between MWI, JNCW and the relevant authorities.
- **Third:** Applying technology in the water field in cooperation between MWI, the Ministry of Digital Economy and Entrepreneurship (MoDEE), and the relevant authorities.

¹ Global Issues - Water, United Nations. <https://www.un.org/ar/global-issues/water>

² Summary of the Strategic Plan 2015-2019, Water Authority, Ministry of Water and Irrigation.

³ Al-Ayasra, Ziyad Abdullah. 2022, water security in Jordan and its future prospects. [https://strategiecs.com/ar/analyses/المستقبلية-وآفاقه-الأردن-في-الأمن-المائي/](https://strategiecs.com/ar/analyses/المستقبلية-وآفاقه-الأردن-في-الأمن-المائي)

- **Fourth:** Moving towards water harvesting projects⁴ on houses' rooftops in cooperation between MWI, donors and relevant civil society institutions.

2 Paper Methodology

The policy brief followed the following methodology:

First: Reviewing previous studies, articles, international agreements, legislation and regulations related to the subject of the study.

Second: Conducting in-depth, semi-structured interviews with experts from the water sector, and here are their names with due respect to their titles:

Hammoud Al-Taiti	Director of the Jerash Water Authority
Majd Al-Naber	Team Leader and Senior Researcher, West Asia-North Africa (WANA) Institute
Maysoon Al-Zoubi	Secretary General at the MWI, and international expert on water and water diplomacy
Niveen Al-Kafouf	Director of the Women's Studies Unit, at MWI

Third: Holding one focus group discussion session with 12 women from Al-Mirad area, which includes: Sakib, Al-Husayniyyat and Al-Hawaya.

It must be emphasised that the information contained in this policy brief does not necessarily reflect the views of the participants, and they are not responsible for its contents. This brief represents the positions and conclusions of the research team after analysing the experiences and information provided to them regarding water supply and its impact on women in the Al-Mirad area in Jerash Governorate, as well as analysing the outcomes of the focus group discussion, in addition to the desk research that the team conducted.

3 Introduction

The water sector in Jordan faces a major challenge in meeting the growing social and economic needs, and this is due to several reasons, mainly the surrounding climatic, environmental, geographic and geopolitical factors.⁵ Jordan is classified as the second poorest country in water resources and the second driest country in the world, and this clearly affected the decrease in the

⁴ For more information on water harvesting, visit the following link:

<https://alrai.com/article/10718237/local/water-harvesting-a-strategy-to-provide-sustainable-irrigation-water>

⁵ National Water Strategy 2016-2025, December 2015, Ministry of Water and Irrigation.

per capita share of renewable water resources.⁶ According to the international classification in the eighth Water and Development Report, Jordan falls within the water scarcity range.⁷

Water resources in Jordan are based on annual rainfall, and on its shared water shares with neighbouring countries, which amount to 26 per cent of the total resources in the Kingdom. Jordan also relies on groundwater, which amounts to 27 per cent⁸ of its resources, which is governed by evaporation factors, demand rate, and groundwater reserves. Water resources in Jordan are divided into two main sources: surface water and groundwater. The amount of surface water amounts to about 400 million cubic meters annually, while the renewable groundwater amounts to about 275 million cubic meters annually. Groundwater constituted the main source of domestic supply.⁹

Water loss also constitutes an obstacle to the management of water resources in Jordan, as it was estimated at about 50 per cent in 2020. Water loss is divided into 50 per cent as administrative water losses, and less than 50 per cent in losses resulting from the deterioration of water networks, which also contributed to the impact on the proportion of water supply, as the number of Jordanians who receive water for 24 hours or less during the week is 50.3 per cent.¹⁰

The Yarmouk Water Company manages the tasks of operating, maintaining and distributing water resources for approximately 2.7 million people living in the northern governorates (Irbid, Ajloun, Mafraq and Jerash), which relies mainly on groundwater.¹¹ It is worth noting that the per capita share of municipal water is the lowest in the Kingdom, and Jerash governorate ranks third with a supply rate of 69.8 litres per day, compared to a water loss (NRW Non-revenue water) of 45.1 per cent.¹²

The announcement of the Sustainable Development Goals in September 2015 played a major role in shedding light on the need to achieve gender equality for achieving sustainable development, specifically the sixth goal on: “Availability of water and sanitation”. In order to achieve this, the Jordanian government stressed the need to ensure¹³ a gender mainstreaming policy into the water sector. Accordingly, the Jordanian government has made many national and international commitments that guarantee broad participation of women in managing the water sector at the level of the regulatory and institutional framework to achieve integrated management of water resources, through directive measures for the water sector and stakeholders that ensure monitoring of the needs and impacts of both women and men alike. This contributes to fair access to water resources and their proper use and management. In turn, the gender policy focused on strengthening the leadership role of women in the water sector, integrating the concept of gender in the preparation of plans and programmes related to the sector, creating a system for monitoring

⁶Water, Sanitation and Hygiene, UNICEF Jordan.

⁷ Water-related Sustainable Development Goals in the Arab Region. 2020, Eighth Development and Water Report, United Nations.

<https://www.unescwa.org/sites/default/files/pubs/pdf/water-development-report-8-arabic.pdf>

⁸ Jordan water sector facts and figures 2017, Ministry of water and irrigation.

⁹ Jordan Economic and Social Council, Country State Report 2021, Primary Sectors Theme, Water.

¹⁰ Water Sector in Jordan; Facts and Figures 2022, Ministry of Water and Irrigation.

¹¹ The website of the Jordanian Ministry of Water and Irrigation, <http://www.mwi.gov.jo/Default/Ar>

¹² Water redistribution policy. 2016, Ministry of Water and Irrigation, Jordan.

http://www.mwi.gov.jo/ebv4.0/root_storage/ar/eb_list_page.سياسة_اعادة_توزيع_المياه/pdf

¹³ Fida, Haddad. 2015, Ensuring the availability of water and sanitation services for all and managing them in a sustainable manner, the proceedings of the “Arab Women in the Development Agenda 2015-2030” conference, Cairo.

and evaluation that takes into account gender differences, in addition to developing means of communication, awareness and training in support of the gender policy.¹⁴

Given that water is an essential component in obtaining food and meeting the basic daily needs related to the family, any imbalance associated with obtaining a proper daily supply will constitute a direct burden on women, especially rural women who depend on natural resources in supporting their families.

4 Key Terminology

Water scarcity: “the inability of water resources to meet demand”.¹⁵

Non-revenue water (NRW): “Is the ratio between water loss and the total water supply. The total supply includes the exported water as part of the water locally produced.”¹⁶

Yarmouk Water Company: “A national limited liability company wholly owned by the Jordanian Water Authority established in 2011. It operates and maintains drinking water production and distribution systems that depend mainly on groundwater, along with a group of springs and various water sources, in addition to collection and purification of sewage water in the four northern Jordanian governorates (Irbid, Jerash, Ajloun and Mafraq).¹⁷

Gender mainstreaming policies: “Policies that do not recognise any discrimination between the sexes, and they assume several main assumptions, including: men and women have equal access to resources (including time), decision-making and control over it.”¹⁸

Gender: “A set of socially constructed roles and relationships, as well as personality traits, attitudes, behaviours, values, and decision-making mechanisms that society ascribes to each of the sexes on a differentiation basis. This concept considers acquired identity as one that is learned and changes over time and varies widely between and within cultures”.¹⁹

5 Legal Framework

Water is an essential element for human life, as it is a human right, and with the worsening water situation at the international level, it was agreed on the need to consider obtaining safe drinking water and providing sanitation services within a framework based on human rights. According to Article No. (14) of the Convention on the Elimination of All Forms of Discrimination against

¹⁴ Gender Mainstreaming Policy in the Jordanian Water Sector, Ministry of Water and Irrigation.

http://www.mwi.gov.jo/ebv4.0/root_storage/ar/eb_list_page. قطاع المياه الأردني، سياسة ادماج النوع الاجتماعي، في قطاع المياه الأردني، pdf

¹⁵ Water Scarcity, Vulnerability and Harm, Human Development Report, 2006.

<https://www.un.org/ar/esa/hdr/pdf/hdr06/chapter4.pdf>

¹⁶ Water redistribution policy, ibid

¹⁷ Jordan Water and Irrigation, website.

¹⁸ Gender Mainstreaming Policy in the Jordanian Water Sector, Ministry of Water and Irrigation, previous reference.

¹⁹ ibid

Women, which Jordan ratified in 1992 “States Parties shall take all appropriate measures to eliminate discrimination against women in rural areas in order to ensure, on a basis of equality of men and women, that they participate in and benefit from rural development and, in particular, shall ensure to such women the right to enjoy adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply, transport and communications”.

At the national level, the Water Authority is responsible for providing public water in addition to wastewater services in accordance with Article No. (23) of the “Water Authority Law” No. (18) of 1988,²⁰ taking into account what is stated in paragraph “b” of this article: “ All tasks, powers, obligations, and rights related to water and sanitation, which are entrusted upon enforcement of the provisions of this law to any government agency, institution, public official body, or municipality, shall be transferred to the Authority. In order to carry out these tasks, powers, and obligations, the Authority may perform the following tasks:

- Establishing specialised departments to carry out the Authority's tasks, powers and obligations.
- Establishing water departments throughout the Kingdom, each of which will have a water council where official and civil authorities involved in water and sewage affairs participate, in order to achieve the participation of citizens and local authorities in approving the priorities of water and sanitation projects and developing implementation programmes.
- Buying, owning or renting real estate, lands and related rights, including water rights needed for the various Authority projects in order to secure the necessary packages for water and sewage networks and private facilities, or which are related to information about the Kingdom’s water needs for various purposes. In addition to information related to water consumption and its utilisation in developing plans to secure the Kingdom's water needs and rationalise its consumption.

And as the same law referred to the penalties according to Article (30/a) as follows: “taking into consideration any more severe penalty stipulated in any other law, anyone who commits any of the following acts will be punishable by imprisonment for a period of not less than one year and not more than five years, and a fine of not less than two thousand dinars and not more than five thousand dinars for:

- Assaulting the conveyor and main water lines.
- Attacking sewage stations, pumping stations, water purification and desalination stations.
- Polluting wells and springs used for drinking purposes, drinking tanks, water collection tanks, pumping and desalination stations, and main and conveying water lines owned by the Authority.
- Drilling underground wells without a license.

²⁰ Water Authority Law No. 18 of 1988 via the following link:<https://jordan-lawyer.com/2018/12/19/قانون-سلطة-المياه-وتعدلاته-1988-18-لسنة-1988/>

6 Water Status in Jerash Governorate

Jerash governorate suffers from several problems that directly affect the rates of water availability for the governorate's population. Among these problems are the scarcity of water sources and successive dry seasons,²¹ in addition to the deterioration of water networks, the geography of areas between high and low areas, and the increase in the population that accompanied the influx of Syrian refugees. All of these factors posed many challenges for the organisation, the distribution and access of water to homes within the governorate,²² which in turn becomes one of the main challenges that the residents of many villages and neighbourhoods in the Jerash region suffer from, including the Al-Mirad area, specifically in the villages of Sakib, Al-Hawaya and Al-Husayniyyat.

Jerash governorate has been suffering from the problem of water shortage for years, as the amount of water does not commensurate with the population increase that has occurred in recent years, especially during summer, and the production of internal water sources in Jerash governorate does not exceed 500-600 cubic meters per hour, while the governorate's need is about 1000 cubic meters per hour.²³

As for Al-Mirad region, some villages faced interruption of water supply through the water networks during the last three years. This is due to the geographical nature and the height of the area,²⁴ as one of the participants explained: "for the past two years .. we were not aware of the timings of the water supply." Another woman added, "No one actually waits for the water supply". This prompted the population to resort to buying water tanks.

Drinking water is characterised by its high price, as one of the participants indicated: "Drinking water costs 25 dinars and more, while non-potable water costs 15-18 dinars". This led some residents of those areas to buy non-potable water tanks. One of the participants confirmed this as part of her husband's work, saying: "half of Sakib's inhabitants buy non-potable water, and my husband works on delivering non-potable water tanks. People began to buy from him because it is cheaper for domestic use, and they put it in their tanks".

A water specialist in Jerash added that the scarcity of water in Jerash governorate is due to the fact that some of the available water sources in the governorate are not suitable for drinking, saying: "the groundwater resources inside Jerash are affected by the demographics and soil layers in the governorate, so in most cases they are unfit for use because of their high salinity and containing toxic sulphates, which would increase the financial costs related to extraction, processing and transportation". There is also the problem of repeated violations on the water networks, as one of the specialists pointed out saying: "About 120-140 violations on the water networks are seized, in quantities of not less than 140,000 cubic meters." On the other hand, a woman expressed the issue

²¹Jerash Governorate Development Program 2017-2019, Ministry of Planning and International Cooperation.

²² Fayeze Odaibat, Syrian Refugee Pressures Water Resources in Jerash, published article, Al-Ghad newspaper, June 3, 2015.

²³ Minister of Water and Irrigation Munir Auwais affirms commitment to the water distribution program in Jerash, Jordan News Agency, October 3, 2022.

<https://petra.gov.jo/Include/InnerPage.jsp?ID=70304&lang=ar&name=news>

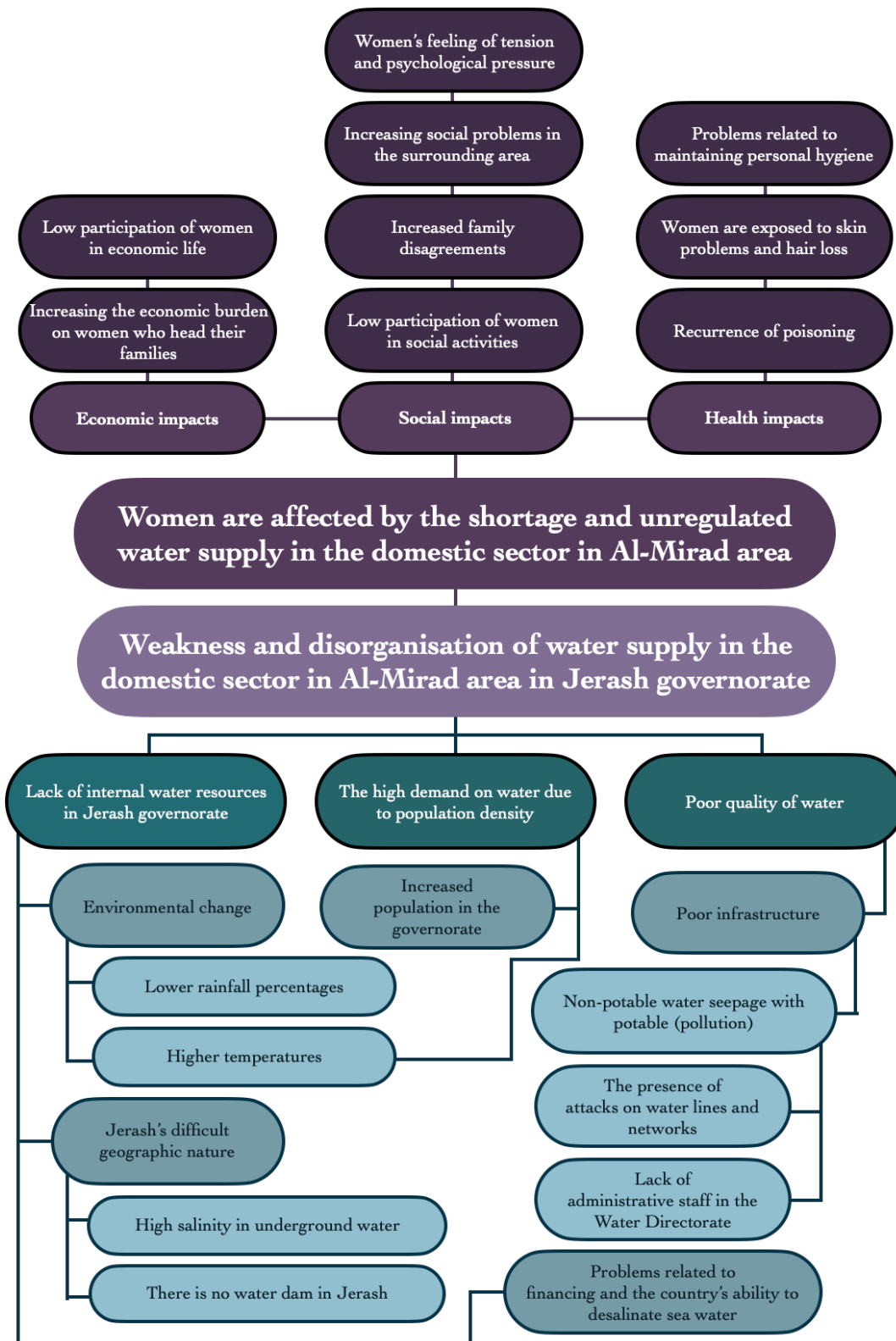
²⁴ Jerash: Residents of the highlands in the town of Sakib have not had access to water for two months, Al-Ghad newspaper, July 18, 2019.

<https://alghad.com/جرش-سكان-المناطق-المرتفعة-في-بلدة-سكيب/>

of water wastage and misuse of water saying: “there are problems with the pipes and you can see the waste, once you find water running in the streets, you would know that water is coming from the main pipes”. This results in an increase in water losses in the governorate.²⁵

²⁵ Complaints of poor water supply and continued waste in Jerash, published report, Al-Dustour Newspaper, August 21, 2022. <https://www.addustour.com/articles/1298013> -شكاوى-ضعف-التزويد-المائي-واستمرار-الفاقد-بجرش

6.1 Problem Tree²⁶



²⁶ A methodology to identify the problem and its causes and effects. The trunk represents the main problem, the roots represent the causes of the basic problem, and the branches represent the effects resulting from the problem. <https://sswm.info/ar/taxonomy/term/2647/problem-tree-analysis>

6.2 Challenges

The results of desk research and meetings with specialists shed light on the scarcity of water supply to the Al-Mirad area based on the following reasons:

6.3 Lack of internal water resources in Jerash Governorate

A large part of the reasons that led to water scarcity in the Jerash governorate is due to the lack of internal water resources, which are caused by: 1) climate change that made rainfall unstable and the climate extreme, 2) the difficult geographical nature of Jerash, where water does not reach the Jerash area due to its elevation and 3) the difficulty of financing and the ability of the state to desalinate sea water.

6.3.1 High demand for water due to increased consumption

In addition to the lack of internal water resources in the Jerash Governorate, the demand for water is gradually increasing with the increase in water consumption by citizens as a result of the increased numbers of the local population as well as the presence of refugees in Jerash Governorate.

6.3.2 Low quality of water

As for water quality, it was noted that some groundwater is not suitable for drinking due to the high level of salinity in it, while the rest has been exposed to pollution due to misuse or being close to homes or residential buildings, not to mention the wear and tear of the infrastructure, which increases the possibility of water leakage to the outside or leakage of harmful substances into the water. In this context, one of the female participants said: “Once, we had a problem when I was a first-year university student.... The pipe water was polluted and we had cases of poisoning and I had an exam !!!”.

6.4 Impacts of the Challenges

Based on the previously mentioned challenges, it was noted that water problems had negative effects on the lives of citizens, and on women in particular because of their multiple duties in carrying out housework and caring for children, in addition to their personal, health and biological needs, these effects were as follows:

6.4.1 The Economic Impacts

The majority of the people who do not have access to water, or who suffer from water shortages and insufficiency, need to buy water tanks regularly to meet their needs. This is equivalent to at least one water tank per month, making families with limited income suffer from this additional financial burden, especially since the governorate itself is burdened with a high family size estimated at 5.1 individuals per family, compared to the general average for the Kingdom of 4.8 individuals per family.²⁷

²⁷ Jerash Governorate Development Program 2017-2019, Ministry of Planning and International Cooperation.

Families also must bear an additional cost under the naming of "tipping" the drivers of water tanks provided by the Jerash Water Authority to ensure that they arrive on time and as soon as possible, and to ensure that the driver keeps providing this service when there is a need for water supply. On the other hand, these challenges constitute an **additional burden on women who head their families, as poverty rates rise among families headed by women**, which necessarily means poor economic conditions as a result of lacking access to water. The Department of Statistics indicated that the percentage of women who head their own households has increased, to reach 17.5 per cent, according to the Department of General Statistics for the year 2020.²⁸ Families headed by women may be more vulnerable to poverty than families headed by men, and suffer from a poor quality of life.²⁹

6.4.2 The Social Impacts

The absence of a fixed role in distributing water to Al-Mirad areas posed a major threat to the stability of families in their homes and their social lives, as water is distributed in a selective manner far from organisation and responsibility. Therefore, some areas receive water every two weeks, while other areas receive every month or more. Also, this is accompanied by a difference in the water supply hours and the water pumping capacity,³⁰ which prompted some residents of those areas to leave the family home and move to the city where water is in better supply, and where they can escape related family discussions. On the other hand, one of the women expressed this disadvantaged situation, saying: "our financial status does not allow buying water tanks, so I go to my parents with my children to do all the activities that require water." Otherwise, water problems may prompt some citizens to commit violations to obtain it illegally, which puts them in a very difficult position. On the social level, women face negative impacts as a result of the lack of regular access to water, as women are unable to allocate special times for themselves to participate in any activities or social courses to develop themselves. **They also remain subject to stress because the water may arrive at any moment, and they must remain ready to finish the housework within a short period of time.** Obviously, women bear this responsibility fully, and this is evident in the words of one of the participants: "When water comes, our priority is to fill the water tanks, after which we work relentlessly to wash the carpets and do our cleaning chores in order to finish before they close the water."

6.4.3 The Health Impacts

The health aspect is a source of fear for the people and water users in the area, as the people unanimously agree that the drinking water is unfit and cannot be used for drinking because of its smell and taste, and the frequent occurrence of cases of water poisoning, as many resort to unsafe water sources such as springs, especially in the summer, which are more exposed to pollution due to the easy access of animals to such areas. All participants confirmed that they face a number of health problems as a result of water pollution and its being unsuitable for human use. Within periods of unstable and unregulated water supply, **women suffer from skin problems and hair**

²⁸ Unemployment rate during the third quarter of 2021, Jordanian women's statistics for the year 2020, Department of Statistics http://dosweb.dos.gov.jo/ar/empuemp_2021q3/

²⁹ Javad Yoosefi Lebni et al., "Challenges and Opportunities Confronting Female-Headed Households in Iran: A Qualitative Study," *BMC Women's Health* 20, no. 1 (December 2020): 183, <https://doi.org/10.1186/s12905-020-01046-x>.

³⁰ Ali Al-Nizami, Ammon Agency, Drinking water in Jerash is limited to a specific segment.

loss, in addition to the difficulty of maintaining personal hygiene, specifically during periods of menstruation and childbirth.

7 Options and Alternatives

Based on the foregoing, the policy brief came up with a number of recommendations aimed at improving the water situation in Jerash, while taking into account gender issues. The proposed recommendations are as follows:

First: Gender mainstreaming in water issues in cooperation between the Ministry of Water and Irrigation (MWI), the Jordanian National Commission for Women (JNCW), donors, consultants and relevant authorities.

Objective: To promote the concept of social inclusion in the institutional, policy and strategic frameworks in force in the water sector in Jordan.

Programmes:

- Increasing women's participation in the water sector, particularly in leadership and management positions.
- Reviewing all policies, strategic plans and regulations in force in the water sector from a gender mainstreaming perspective.
- Preparing a directive guide on the agreed-upon mechanisms for gender mainstreaming.³¹
- Preparing a gender mainstreaming monitoring and evaluation system, specifically in the field of collecting data and information and setting indicators on the water level.
- Enhancing frameworks of communication, dialogue and exchange of experiences between partners at the local, regional and international levels in the field of gender and water issues.

Advantages of the proposed recommendation:

- Increasing women's access to decision-making positions.
- Ensuring that gender differences and needs are taken into account in water issues.
- Building the capacities of water sector employees in the field of gender mainstreaming and the mechanisms used to achieve it.
- Does not need large funds for implementation.

Challenges facing the implementation of the proposed recommendation:

- Implementation of the recommendation requires a high degree of coordination and cooperation between the relevant authorities.
- The long period of time needed for carrying out the activities, and changing the cultural stereotype towards women.

³¹ Resource guide on gender and water management master track.

https://www.un.org/esa/sustdev/inter_agency/gender_water/resourceGuide_Arabic.pdf

Second: Raising awareness of the role of women in managing, saving and preserving water in cooperation between MWI, the JNCW and the relevant authorities.

Objective: Establishing a gender mainstreaming vision for the management of water resources.

Programmes:

- Directing some government policies from water saving policies to water management policies in partnership with women.
- Building the capacity of the local community - women and men alike - on how to manage and save water.
- Holding focus group sessions with women to learn about the water challenges they face, and to identify solutions from their point of view that are based on their experiences.
- Implementation of media campaigns in partnership with housewives and various media outlets on how to manage, conserve and save water.

Advantages of the proposed recommendation:

- Contribute to the exploitation of available water resources, and work to reduce water wastage.
- Contribute to achieving the principle of justice and equality between men and women in accessing resources.

Challenges facing the implementation of the proposed recommendation:

- A comprehensive vision of how to manage water resources, taking into account the different conditions of women (age, social status, place of residence, number of children, experience in water resources...)
- The time period and large sums of money for the implementation of programmes.
- The ability to coordinate between all levels of the relevant authorities, while taking into account the interests and rights of women.

Third: Applying technology in the field of water in cooperation between MWI, MoDEE, and the relevant authorities.

Objective: Preserving water resources from any attacks, and increasing the safety of open water sources such as springs.

Programmes:

- Using modern technology methods to raise irrigation efficiency, water quality and reduce water loss.
- Installing surveillance cameras on water lines to ensure that violations are stopped.
- Activating the electronic complaint system to ensure the privacy of subscribers.

Advantages of the proposed recommendation:

- Designate and improve access to various water sources.
- Manage the water sector more effectively, and increase the capacity to store water.
- Work to effectively reduce water violations and increasing the ability to control water losses.

Challenges facing the implementation of the proposed recommendation:

- The big amounts of funding required for implementation.
- Implementation requires setting up a periodic follow-up and control system on the technological tools used.
- Implementation requires experts and technicians in the technological tools used.

Fourth: Moving towards water harvesting projects³² on rooftops in cooperation between MWI, donors and relevant civil society institutions.

Objective: To find new water sources.

Programmes:

- Work on allocating a special national programme to support the water sector, such as the Energy Support Fund for homes to install cell systems and solar heaters as a model.
- An awareness programme on the importance of water harvesting in facing the water problem in Jordan.

Advantages of the proposed recommendation:

- Providing alternative projects that enable individuals to obtain water continuously.
- Providing free and sustainable drinking water.
- It is implemented using simple mechanisms and techniques.

Challenges facing the implementation of the proposed recommendation:

- Implementation of the recommendation requires homeowners to obtain financial support for establishing water harvesting projects, and to empower them scientifically and practically in how to implement such type of projects.

The foregoing confirms that water and the factors affecting its supply to homes directly affect women and their economic, social and health conditions. More research, institutional and national

³² For more information on water harvesting, visit the following link:
<https://alrai.com/article/10718237محلبيات/الحصاد-المائي-استراتيجية-لتوفير-مياه-ري-مستدامة>

Water supply in the domestic sector and its impact on women in Al-Mirad area in Jerash governorate

efforts must be made to improve the status of water supply in Jordan and in Jerash governorate in particular, in light of gender mainstreaming to ensure the improvement of the conditions of women in social and economic life.



West Asia-North Africa Institute
Royal Scientific Society
70 Ahmad Al-Tarawneh St
Amman, Jordan

info@wana.jo
www.wanainstitute.org