



Climate Change and Gender-Based Violence in Jordan

Research Brief
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Overview

The climate crisis is one of the greatest global challenges of the 21st century. The detrimental effects of climate change can be felt in the short-term through natural hazards and in the long-term, through the gradual degradation of the environment. Research shows that the effects of climate change are felt in many areas including agriculture and food security, water resources, human health, migration patterns, transport, and industry, among others. Vulnerability to climate change can be defined as ‘the degree of exposure of people, geophysical and socioeconomic systems to adverse climate change as well as the extent to which people can respond to problems associated with climate change.’¹ Vulnerability to climate change comprises three fundamental areas which include the rate of exposure, the degree of sensitive capability, and degree of adaptive capacity.²

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The impacts of climate change are already being felt and are projected to get significantly worse. This includes 'extremes of heat that will push some areas beyond habitability, huge increases in precipitation in some regions and droughts in others.'³ While everyone everywhere is subject to the effects of climate change, marginalized groups, women and girls face heightened risks.⁴ This is particularly true as climate change disproportionately impacts the poor and women constitute the majority of the world's poor and are dependent on threatened natural resources.⁵ At the same time, women and girls are effective and powerful leaders and change-makers for climate adaptation and mitigation. Their participation and involvement in sustainability initiatives is resulting in more effective climate action.

UNFPA has committed to three transformative results by 2030: i) ending preventable maternal mortality, ii) ending unmet need for family planning and iii) ending gender-based violence and harmful practices. The rapid pace of climate change is making these transformative results difficult to achieve, this is why on the occasion of International Women's Day "**Gender equality today for a sustainable tomorrow**", UNFPA Jordan is collaborating with the Information and Research Center – King Hussein Foundation and Sama Consulting and launching this research brief which aims to **highlight the impact of climate change on women and girls in Jordan with a particular focus on gender-based violence (GBV)**. The brief outlines the situation of climate change in Jordan, its impacts on women and girls, and highlights the contribution of women and girls in Jordan who are leading the charge on climate change adaptation, mitigation, and response, to build a more sustainable future for all.

This qualitative research is exploratory, based on an extensive review of literature related to climate change and GBV as well as 7 key informant interviews (KIs) with gender and environmental experts and women champions working in the environmental/climate change sectors. Additionally, 1 focus group discussion (FGD) with GBV case managers was conducted to examine the impact of climate change on women and girls in Jordan. Most interviews were conducted remotely as a COVID-19 infection control mitigation strategy. The list of key informants interviewed can be found in Annex 1.

The Impact of Climate Change on GBV: Global Evidence

Why are women more vulnerable than men to the impacts of climate change?

- Among groups which are expected to be disproportionately affected by climate change are the poor. As women constitute the majority of the world's poor and are proportionally more dependent on threatened natural resources, they are more vulnerable to the effects of climate change. 70% of the 1.3 billion people living in conditions of poverty are women. In urban areas, 40% of the poorest households are headed by women.⁶
- There are differences in the roles, responsibilities, decision making and access to land and natural resources held by women and men. Worldwide, women have less access than men to resources such as decision-making structures, land, credit, and technology, limiting their capacity to adapt to climate change.⁷ Patriarchy is considered one of the main factors which result in the imbalance in power relations between men and women, and in the context of climate change, as a reason behind the increased vulnerability of women to the adverse impacts of climate change.⁸

What are the potential GBV risks of climate change on women and girls?

Potential risks

Increased risk of violence

Climate change can increase the risk of violence against women and girls in two ways. Climate change-related events can potentially make women's homes and neighborhoods uninhabitable. As a result, they may be forced to migrate to camps where living under temporary tarps or bare plastic sheets can expose them to violence from strangers.⁹

Increased risk of intimate partner violence

Climate-induced events also increase the risks of intimate partner violence and sexual violence. Many essential services for women and girls such as sexual and reproductive health care, education, social protection, GBV response- are disrupted by acute climatic disasters.¹¹

Evidence from around the world

In Somalia for example, drought and flood conditions in 2019 resulted in the internal displacement of 2.6 million people and increased women and girls' vulnerability to GBV including intimate partner violence, FGM and sexual violence.¹⁰

Research analyzing data of 84,000 women from 19 demographic and health surveys in Sub-Saharan Africa shows that women living in conditions of severe drought were at higher risks of experiencing physical and sexual violence by intimate partners compared with women not living in drought conditions.¹²

Potential risks

Increased risks of child marriage

Extreme weather conditions destroy livelihoods and in turn exacerbate poverty. When families are unable to meet their basic needs, evidence suggests that the risk of child marriage increases significantly for girls. In some contexts, child marriage can be a negative coping mechanism adopted to diminish the effects of crippling poverty. It is also falsely perceived to protect girls from potential violence.¹³

Increased risks of transactional sex

Women in rural communities have limited access to and ownership of their land which directly impacts the food they have available to eat. When climate events impact natural resources necessary for women and girls to make a living and support their families, some may have to engage in negative coping mechanisms to secure a living, such as transactional sex.¹⁶

Evidence from around the world

Drought-induced famine in Ethiopia and South Sudan caused an increase in girls sold into early marriage in exchange to livestock. This was done to help families survive poverty.¹⁴ After Cyclone Sidr struck Bangladesh in 2007, child marriages increased to reduce the financial burdens placed on families and to 'protect' girls from sexual harassment after migration.¹⁵

In study from Namibia, five out of eight participants noted that transactional sex occurred in their communities because food became insufficient because of drought and women needed to provide for their families.¹⁷ Similarly, the drought in Kenya, forced many girls to engage in transactional sex or to be forced into early marriages.¹⁸

Findings

Overview climate change in Jordan

Climate hazards in Jordan have been increasing in frequency and intensity in the past decade. Flooding has resulted in loss of human lives, destruction of agricultural land and damages to infrastructure. Landslides and erosion problems have occurred as well, concentrated on the steep slopes of mountains and wadis. The impact of climate change is affecting and expected to further affect various sectors including agriculture, coastal, biodiversity, water, and health. Therefore, adaptation planning with defined options and measures are required to mitigate its effects and build resilient communities and ecosystems.¹⁹

One of the most pressing issues facing Jordan is water scarcity. Jordan is among the top five most water-stressed countries in the world. The per capita water availability in Jordan is 100 m³ per year, which is considerably below the 500 m³ per capita global threshold for severe water scarcity. Evidence shows that if water supply is to remain constant, increases in water demand over the next few years will lead to a fall in per capita water availability of 90 m³ by 2025.²⁰

Water scarcity is aggravated by social, environmental, and geopolitical factors. There are two main sources of water in Jordan: surface water and groundwater. Surface water comprises water resources from the Jordan, Yarmouk and Zarqa rivers and constitutes 27% of the total water supply. As two of the rivers are shared with neighboring countries, with Jordan being the downstream country, upstream diversion and over pumping have impacted the quantity and quality of water available to Jordan. As a result, the Jordanian population heavily relies on groundwater for irrigation, and are withdrawing groundwater beyond safe yield. This has resulted in the deterioration of its quality.²¹

In Jordan, the impacts of climate change are already manifesting in water shortages – and are expected to become more severe. Climate change has resulted in a decrease of 20% in annual precipitation over the last decades. Soon, higher average temperatures, changes in precipitation and temperature extremes are projected to affect the availability of water resources through changes in rainfall distribution, soil moisture, and river and groundwater flows, leading to further deterioration of water quality.²²

“Over the past 40 years, we have lost around 20% of our annual rainfall. What this does is reduce the recharge rates of groundwater, impacting its availability and quality. Additionally, temperature levels are increasing. In certain areas, the climate was suitable to grow certain crops; this isn’t the case anymore. For example, we cannot grow wheat on rainfall. In the past, the majority of our food was coming from rainfed agriculture, now we need to irrigate for longer periods and with higher quantities of water. This also ties with the livelihood of those working in grazing, who are also impacted by these changes.” (Raed Daoud; CEO, Eco Consult)

Available water resources in Jordan are split between domestic/municipal, industrial, and agricultural use. 50.7% of water resources go to agriculture.²³ Farmers irrigate less than 10% of the total agricultural land and only 5% of land receives enough rainfall to support cultivation. Irrigation is heavily dependent on groundwater abstraction, which in 10 out of 12 groundwater basins is abstracted beyond safe recharge yields. Due to changes in the climate, rainfall is not only low but is also becoming unpredictable. Half of potentially cultivable land is unutilized because of fluctuating and unevenly distributed rainfall. Of the rain which does fall, most is lost in evaporation and unutilized runoff – which in some cases causes erosion. As a result, it is becoming difficult to sustain crops, livestock, and pasture.²⁴

Impact of climate change on women and girls in Jordan

Global evidence identifies three main factors which make women and girls more vulnerable to climate change: I) the increased likelihood of women living in poverty, II) their dependence on threatened natural resources and III) the imbalance in power relations, roles and responsibilities resulting from patriarchy – which in the context of climate change, diminishes the ability of women and girls to adapt to and recover from climate-related events. While this is a relatively new area of research in Jordan, several indicators point in the direction of climate change’s disproportionate impact on women and girls.

WATER DISTRIBUTION IN JORDAN IS INEQUITABLE, WITH RURAL COMMUNITIES AND REFUGEES BEING THE MOST MARGINALIZED.

While water is supplied to households through the municipal water network, supply is inequitable. Households in the capital Amman and in major urban centers receive water once a week, but households in rural areas and more remote locations receive water every two weeks.²⁵ To make up for water shortages, some households have tanks to store municipal water and others buy water to meet various household needs such as drinking, cooking, and cleaning. Households living in poverty and marginalized communities are at higher risk of water shortages and have a lower capacity to cope.

Women living in poverty and female-headed households are more likely to suffer from lack of resources and less likely to have the means to cope. In 2019, the government of Jordan announced a new national poverty rate of 15.7%. This meant that more than 1 million Jordanians lived below the poverty line.²⁶ While there are no updated sex-disaggregated poverty figures, existing evidence suggests that women in poverty tend to be more vulnerable, especially female-headed households. For example, male headed households in Jordan spend 8 JD more per person than female headed households.²⁷ Almost 9.1% of female-headed households were classified as food insecure, compared to 5.7% of male-headed households.²⁸ These figures are likely to have worsened as a result of the COVID-19 pandemic, which has increased

poverty rates and widened inequality gaps. Evidence shows that among the most marginalized groups to have been negatively impacted by the pandemic are women in low-income countries.²⁹

WITH THE RESPONSIBILITY OF MANAGING WATER RESOURCES INSIDE THE HOUSEHOLD DISPROPORTIONATELY FALLING ON WOMEN, THEY ARE MORE LIKELY TO BE THE ONES WHO SUFFER WHEN WATER IS SCARE.

The gender paradigm in Jordan places a higher value on women’s reproductive roles, which become more stressful with the scarcity of resources. Many women in Jordan are responsible for the management of all household-related chores, such as cooking, cleaning and the management of water resources. They are more likely to be responsible for rationing water, prioritizing household chores according to its availability and finding ways to cope when it’s scarce – placing additional pressure on their role as caretakers and resulting in increased psychological stress.

“The way water is distributed really affects women and the household dynamic in general. The day they get water, there is extreme alert; the women say that they avoid any social obligations to make use of the water that day... For women, this becomes a huge issue because they have a policing role.” (Hala Ghosheh, Gender Expert)

Water scarcity is also likely to lead to increased tensions between family members and intimate partner violence. Some experts explained that water scarcity – similar to the scarcity of any other resources such as money and food – is likely to result in GBV, especially in homes where violence against women is normalized.

“Whenever resources are scarce in the household, there is tension. There is stress. Given the patriarchal norms, the anger and frustration are often taken out on women. Whether its scarcity of water, or money, or any resource that a household needs to survive, the anger is usually taken out on women. So that’s where we see a nexus between GBV and scarcity of water.” (Bisika Thapa; Gender Justice Program Manager, OXFAM)

Examples were drawn from Azraq Camp, where case managers explained that **water scarcity does create tension between spouses and in some cases result in violence.** Unlike women in many communities in Africa, women in Jordan are not responsible for collecting and fetching water, with one of the exceptions being refugee women in Azraq camp. Given that women in Azraq camp are tasked with the responsibility of collecting water, tensions sometimes arise when women are unable to collect the water or miss the peak hours of water supply.

Case study: Water supply in Azraq camp

Water in Azraq Camp is distributed through the water supply network to 300 tap stands. This results in a daily average water distribution of 60 liters per person per day³⁰ which is considerably lower than the national per capita/day distribution of 90–100 liters.³¹ Approximately every seven families share a water tap from which they collect the water that is supplied every few days for a certain number of hours. Most women in Azraq Camp are primarily tasked with collecting water from these taps.

With the responsibility of collecting and fetching water in Azraq Camp being primarily of refugee women, this increases their risk to verbal abuse and sexual harassment. Some women have to walk long distances to collect water. Case managers explained that many women often face problems with neighbors over water rationing and others are subject to verbal and sexual harassment on their way to collecting water.

“One of the main issues women face while collecting water in the camp is problems with neighbors around water rationing. Another form of violence that they face is sexual harassment...on the way to collect water.” (Haneen Al Hamad, Case Manager, International Rescue Committee)

Female-headed households in Azraq camp face heightened risks of violence and harassment and conservative social norms result in under-reporting. Case managers further explained that women who are heading their households are at higher risk of harassment and are more likely to be taken advantage of by other camp members. Due to conservative social norms in the camp women tend to avoid reporting instances of violence and harassment and find other ways to deal with it.

“People in the camp tend to know who works where, therefore women who are left responsible for their households – because their husbands work outside the camp – tend to be more vulnerable and at risk of harassment and violence... In the fear of being blamed, or even not believed, many women do not report these incidents and find other ways to cope. There was one woman who started going to a tap that is further away from her home, just to avoid the man who was harassing her.” (Nuha Al-Zyoud, Case Manager, International Rescue Committee)

WATER SHORTAGES COUPLED WITH FINANCIAL CONSTRAINTS ARE LIKELY TO IMPACT WOMEN AND GIRLS DURING THEIR MENSTRUAL CYCLE.

Several key informants pointed out issues faced by some women in Jordan during their menstrual cycles as a result of water shortages.

They expressed that there have been reports by some women of their inability to manage their menstrual cycle in a safe and dignified way, due to lack of resources including water and money to buy sanitary products.

“Period poverty refers to women and girls’ ability to access resources that they need for their menstrual cycle – whether sanitary products, medication, water and so on. Inability to access resources is heavily tied with economic conditions as well as environmental factors such as access to water. Less water for hygiene means more diseases... Some women use newspapers instead of sanitary products during their period. Emotional stress that results from water scarcity and its implications are one kind of GBV that women face. There are many links between the two.” (Banan AbuZainEddin; Executive Director, Takatoat)

“Some women in Madaba expressed that when water shortages happen, they are affected especially during their menstrual cycle as they need more water for hygiene purposes.” (Raya Alshouara, Case manager, Institute for Family Health)

For women in Azraq Camp, tensions between many spouses over water scarcity increase during women’s menstrual cycle. During increased heat and with the task of walking long distances to collect water, women require additional sanitary products and water to manage their menstrual cycle. The need for additional sanitary products and water in households with financial constraints creates problems between spouses.

“Last year, the temperature was very high. Women used to tell us that when they go to collect water while on their period, they need more sanitary products because of the heavier flow and physical strain. They need more money to buy sanitary products, and this causes problems with the husband. They also need to shower more because of the heavy flow after collecting water in the summer with very high temperatures.” (Nuha Al-Zyoude, Case Manager, International Rescue Committee)

Research conducted with women in Mafraq looks at the issue of period poverty and links it to four components: access to sanitary products, access to water and sanitation, stigma, and indignity. The study found that one third of the research sample had no regular access to water and that the vast majority suffered from sanitation-related psychological stress because of available water and sanitation infrastructure. 91% of the sample experienced negative emotions during their menstrual cycle.³²

Girls’ inability to safely manage their menstrual cycle in schools could become a common factor of school drop out if water shortage problems continue to increase. A baseline study conducted in 2015 showed that out of all surveyed schools, 57% reported that available stored and supplied water was insufficient to provide the minimum quantity of water per student, 77% received water less than 4 times per month, 8% received water once or twice a month and 3% never received water. Research by the Gender and Adolescence Program in Jordan found that girls’ menstrual hygiene is compromised by the same deficits that compromise other sanitary needs – namely the lack of water and privacy and overcrowded and dirty toilets.³³ Research exploring the impact of water and sanitation in schools on girls in Jordan remains limited.³⁴

Under the spotlight: women contributing to sustainability and climate action efforts

The limited participation of women in public life limits their contribution to climate adaptation and mitigation efforts and excludes their experiences. There was consensus among experts interviewed that women in Jordan are not effectively included in climate change discussions and policy formulation. A study on rural women and climate change in Jordan found several factors to be impeding rural women's participation to climate change adaptation and mitigation measures, including limited theoretical knowledge and understanding of the issue, lack of networking opportunities and access to leadership positions.³⁵ This not only impacts their access to resources, information and technologies required to help them adapt to and mitigate the impacts of climate change, it also excludes their experiences and knowledge from these discussions. This was stressed by Ruba Al Zoubi, an environmental policy and green economy expert, *"there isn't enough involvement of women... We need women in decision making, policy formulation and planning. Women are also not always well prepared and trained to participate. When women are excluded from the discussion, this results in poor planning and under representation."*

While women's participation in climate change discussions is still limited on the policy level, there are several grassroot initiatives founded or co-founded by Jordanian women with the aim of contributing to environmental sustainability and climate action efforts.

One example is 'Project Sea', an initiative founded by Bisan Al-Sharif and Seif Madanat in 2021 with the aim of conserving marine life in the red sea. Project Sea organizes regular cleanup campaigns in Aqaba, along with volunteer scuba divers. The initiative focuses on changing the culture of disposal of waste and creating a culture of conscious consumerism by encouraging recycling, upcycling, and reducing waste as much as possible. Since inception, Project Sea organized seven clean up campaigns and collected more than 16,000 pieces of plastic waste. To make their operations more sustainable, the initiative is working with Palestinian refugee women to create tote bags which are then sold, with part of the proceeds going back to the women and the other part to fund future clean up campaigns.

"We are trying to tackle multiple social and environmental issues through our initiative. We are changing the way people deal with their waste, by raising their awareness about their consuming habits. We are encouraging people to volunteer and clean up diving sites to preserve marine life. We are supporting refugee women by empowering them economically." (Bisan Al Sharif, Project Sea)

In the northern governorate of Irbid, Wedad Obeidat and seven other women launched the Al-Rafid Women's Agricultural Society in 2015 with the aim of providing women with valuable skills and training in agriculture in order to help them generate an income and promote food security. Over the span of six years, the association partnered with several local and international organizations and provided numerous training sessions for women in agriculture, encouraging them to make use of their own spaces at home to grow food and achieve full or partial food sufficiency. Given that communities living in rural areas and working in the sector of agriculture face many challenges, including climate change, water shortages and exclusion from economic opportunities, the association introduced the concept of "rural tourism" whereby tourists visit the homes in Rafid and buy directly from their produce.

Conclusions

This research brief finds that among the most pressing environmental problems facing Jordan is water scarcity, a crisis that is aggravated by climate change. Evidence from around the world shows how climate induced events and impacts such as droughts, floods and changes in temperatures can lead to gender-based violence including harassment, intimate partner violence, child marriage and transactional sex. In previous research, UNFPA used the Ecological Model to understand factors that increase the vulnerability of women and girls to climate change. Those factors include broad ones such as poverty, economic and social inequalities and gender discrimination at the societal level and more micro-level ones such as low levels of education, lack of access to income and high dependence on natural resources at the individual level.³⁶

While data on the impacts of climate change on women and girls in Jordan is limited, it can be concluded from existing evidence that they are likely to be among the ones who suffer the most from climate-related events and impacts. This is particularly true as women's participation in public life and their access to resources remains quite low. As highlighted by key informants, direct impacts of climate change on GBV in Jordan are likely to include additional burden of water management inside the household, increased tensions between family members as a result of water shortages, and specifically for refugee women in Azraq camp increased incidents of harassment and intimate-partner violence. Discriminatory gender and social norms impact the roles and responsibilities of men and women in Jordan, their access to resources and decision-making power, and in turn diminishes women and girls' abilities to adapt to and recover from climate-related events.

Recommendations

The National Climate Change Adaptation Plan of Jordan (2021) recognizes that climate change disproportionately affects women and vulnerable groups, partly due to their socio-economic conditions. It stresses on the need to collect, collate and analysis sex-disaggregated data related to vulnerable groups including farmers, livestock herders, children, families living in poverty, female headed households and the disabled.³⁷ This research brief recommends the following:

1. Produce sex-disaggregated data in the field of environment and climate change, particularly data on the impacts of climate change in Jordan. Examples of data gaps include impacts of water shortages, increased temperatures, food insecurity, droughts and flashfloods on individuals and families residing in different communities around Jordan as well as coping mechanisms utilized.
2. Collect and collate evidence on the links between climate change hazards and GBV in Jordan to conduct advocacy campaigns on the importance of addressing GBV in climate change action as well as utilize this data to create appropriate interventions. Areas that require further investigation include:
 - Impact of water shortages on women's experience of sexual harassment, physical and emotional violence, intimate partner violence and transactional sex (with particular focus on women living in poverty, refugee women, women working in agriculture, female headed households and women in informal tented settlements).
 - Impact of droughts, floods and water shortages on the food security and livelihood of women and possible links to GBV.
 - Impact of water shortages on women's ability to safely manage their menstrual cycle and the possible forms of violence that result due to water shortages. Additionally, the impact of water shortages and the inability of girls to manage their menstrual cycles at school should be investigated.
3. Risk reduction, enhanced preparedness and strengthened emergency response. Programmatic approaches for early warning, preparedness and early action on gender-based violence linked to climate impacts need to be adapted and implemented, especially to address seasonal and cyclical emergencies where existing long-term or emergency interventions are insufficient.
4. Support and strengthen multi-sectoral response which is fundamental to disaster preparedness and building resilience. Coordination efforts must bring together livelihood, GBV, gender, education, and WASH actors among others to ensure that interventions are holistic and sustainable and avoid duplication in service delivery.
5. Ensure that programs take into consideration the different experiences and needs of men, women, boys, and girls with regards to environmental issues and climate change.
6. Train and mentor women in the field of environment and climate change to increase their participation in climate action and ensure that they effectively contribute to adaptation and mitigation responses.
7. Raise awareness on climate change issues and impacts at the community level and support women's organizations and networks to promote adaptation and resilience. Young people, as global and local leaders on climate change as well as ICPD champions, need support in building their own resilience and supporting those around them.
8. Highlight the contribution of women at the policy and community levels to climate action and sustainability efforts.

Annex 1 – List of Key Informants Interviewed

	<u>Name</u>	<u>Role / organization</u>
IDI	Ruba Zoubi	Environmental policy and green economy expert
IDI	Banan AbuZainEddin	Co-founder & Executive Director – Takatoat
IDI	Bisika Thapa	Gender Justice Program Manager – Oxfam
IDI	Frans Louwers	WASH Program Manager – Oxfam
IDI	Raed Daoud	CEO – Eco Consult
IDI	Hala Ghosheh	Gender Expert
IDI	Bisan Sharif	Co-Founder – Project Sea
FGD	Case managers and psycho-social experts	International Rescue Committee, Institute for Family Health – Noor Hussein Foundation, Jordanian Women’s Union

END NOTES

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