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Climate change and pollution are increasing challenges for women and girls in Basra 2024

Dr. Ilham Makki Hammadi



Executive Summary

In the past ten years, the environmental situation in Iraq has rapidly deteriorated due to climate change, which has posed a direct and severe threat to the agricultural sector and obstructed development efforts to improve the sustainable livelihoods of directly affected populations, such as in Basra Governorate. The rise in temperatures, coinciding with long heat waves, has led to water scarcity and pollution and an increase in its salinity levels, resulting from rising sea levels and salt water's northward incursion towards the Tigris and Euphrates rivers. River levels also dropped due to lack of rain, neighboring countries withholding water, and weak management of water resources. Large areas of al - Ahwar (the marshes) dried up, which is the leading indicator of maintaining biological diversity. However, this research depicts climate change not merely as an environmental problem but as a stark warning of a humanitarian predicament that threatens national security and human rights,

especially the rights of marginalized groups such as women and girls, and leads to widespread economic pressure.

In an attempt to address the scarcity of existing literature on women and climate change in Iraq, this research makes a significant contribution by providing a better understanding of how climate change has affected the lives of women and girls in Basra. It highlights how climate changes are exacerbating the economic, social, and health challenges historically facing women and girls in the region. It identifies not only how women face twice the challenges facing men due to climate change but also how they can mitigate and adapt to its effects. The research methodology is based on a desk review of studies and reports and primary data collected through 46 in - depth interviews with thirteen women from rural areas and fifteen from the city. In addition, eighteen men from the countryside and the city were interviewed to understand the reality of women from the men's perspective.

The research also adopted an individual - centered approach to understanding the challenges and impacts of climate change through women's experiences.

The social and economic challenges section provides evidence of the persistent obstacles preventing women from enjoying their fundamental human rights. Women's exit into the public sphere is subject to moral and social control promoted by the political system. Women's presence in public is viewed with great caution and fear. Thus, restrictions are imposed on their movements and exit to the public sphere unless urgent, depriving them of opportunities for empowerment, personal development, and public participation. Most of the interviews with men and women confirmed that violence against women continues in various forms in the private and public spheres. Women do not benefit from deterrent laws and institutions that adopt effective protection mechanisms or provide services to women victims of violence. However, women's participation in the labor force in Basra is as low as in the rest of Iraq's cities and regions. In 2024, the Basra Governorate Council reported a 37% unemployment

rate for women in the district, more than double the men's unemployment rate of 16%. Women face structural gaps in jobs and economic activity, limited to unpaid work.

The second part of the research focuses, in particular, on the impact of climate change and pollution on women's lives. The interviews confirmed that different roles and responsibilities are imposed on women as opposed to men. The burden of household chores has doubled due to water salinity and pollution, and women are forced to spend more time cleaning, washing dishes, and sterilizing food to remove traces of salt and microbes in the water. Monitoring the filling of water tanks at home also requires women to spend additional time and effort. Usable water is not pumped continuously, and it has no specific hours. Filling tanks with salty water leads to their deterioration and causes diseases for all family members. Women in low - income families in the city and the countryside are often forced to carry safe water purchased from mobile shelters to secure their daily needs and complete household chores. Official statistics indicate that even though 93.9 percent of the population is

connected to the public water network, 99.2 percent end up buying bottled water to drink and cook. The rise in water salinity has also taken people back in time. Most women, especially those with limited income in rural areas most affected by water salinity, do not use electric clothes washers, as they cannot provide usable water for the washing machines. Thus, they are forced to use traditional methods, i.e., washing by hand. Moreover, due to the rise in water salinity, the price of a ton of freshwater forces women to ration its use while performing daily household tasks, which increases their daily burdens, consuming additional effort and time.

Climate change puts women's reproductive health at risk and leads to more significant health complications compared to what men face. Eighty percent of the interviews said that many women are exposed to breast and uterine cancers and gynecological infections. With increasing stress and fatigue, women and girls become more vulnerable to infectious diseases. These risks are multiplied by the women's limited and strenuous access to health services, which complicates their health conditions, as diseases are often

discovered in their late stages.

With the increase in drought and water salinity, most poor families in rural areas abandoned agriculture as the lands became barren. Consequently, migration towards the city or the north seeking good water is on the rise. The situation of rural women, especially breadwinners, became more difficult. Most of them lost their traditional sources of livelihood to provide for their basic needs. Migration also caused a loss of the relative space of movement. Those women were forced to live in city slums and became more dependent on men to provide for the family's needs. Most were forced into low - paying jobs in the informal sectors without insurance or job security. They are exposed to exploitation and expulsion, which impacts their family situation and leads to more trouble and domestic violence.

Recommendations

Many institutions are responsible for tackling climate change: the government, national and international civil society organizations, and the private sector. The nature of the challenges requires that all stakeholders establish partnerships to enhance cooperation and provide

responsive efforts commensurate with women's needs, experiences, capabilities, and potential.

The Government

- Follow up on implementing the decisions of the Iraq Climate Conference, held on March 12 - 13, 2023, to tackle the effects of environmental and climate changes affecting Iraq.
- Develop evidence - and data - based programs to mitigate the economic, social, and cultural impacts of climate change on women and girls. These programs should be designed to recognize women's roles as social change actors and key stakeholders and involve them in the design and implementation of interventions.
- Integrate women's public and reproductive health issues into multiple levels of planning within relevant government agencies, including reducing pollution risks, drought and water management, investing in infrastructure, and agriculture. There is also a need to educate both women and men about the health threats associated with climate change by adopting an official media policy that focuses on the severe health effects and integrating them into public health messages.
- Collect high - quality data disaggregated by sex to better understand the different impacts of climate change on men and women. In addition, health data can be integrated with agricultural, meteorological, and water and air quality data to identify areas and populations at risk, using integrated communications and technological systems (early warning) to guide community interventions.
- Prioritize education by focusing on bridging the gap in education between rural and urban areas and between girls and boys, providing school buildings with teaching staff for the various primary, middle, and secondary levels, and establishing local training and development centers to enhance skills and build capacities among women to withstand, adapt, and sustain the livelihoods of local communities, especially In rural areas.
- Institutionalize efforts to implement the Sustainable Development Goals

(SDGs) within the framework of Iraq's Vision 2030, in particular linking the first goal of poverty reduction with the fifth goal on the equality between men and women and the thirteenth goal on climate action, continuous coordination to unify efforts among relevant government agencies, and cooperation with local and international civil society organizations.

- Integrate women and enhance their capacities as leaders in decision - making processes at the national and local levels regarding allocating resources, finding solutions to climate change impacts, and enhancing their meaningful participation by linking climate security to the women, peace, and security agenda.

Parliament

- Review and reform laws to make them more responsive to the climate needs of women and girls, in line with international human rights standards and national development plans.
- Enact a law to combat domestic violence, as climate change and slow environmental degradation exacerbate the risks of violence

against women and girls due to displacement, scarcity of resources, and food insecurity.

Local and International Civil Society Organizations

- Continue to develop and fund programs whose design accommodates the challenges and climate injustices that affect women's and girls' situations, and make every effort to remove the economic, social, and cultural barriers that could prevent them from benefiting from them.
- Finance programs aimed at reducing barriers that hinder women's and girls' abilities to participate or lead in climate change mitigation and decision - making related to resource management, peacebuilding, relief, and recovery at the local, national, and international levels.
- Amplify the work and voices of women and girls leading climate change adaptation, mitigation, and resilience efforts in all sectors and at all levels, and highlight the perspectives and initiatives of women active in civil society.

Introduction

Iraq's biologically diverse ecosystem is facing a serious threat. In recent years, the effects of climate change in Iraq were palpable. In 2019, the country was classified as the fifth most affected by climate based on the 2019 UN classification. By 2050, temperatures are expected to rise by two degrees Celsius, coinciding with a decrease in rainfall to (9%). More areas will be exposed to drought, the weather will become more volatile and harsh, and dust storms and floods are also expected to increase.⁽¹⁾ On the other hand, the threat of water scarcity is not merely due to high temperatures. Turkey and then Iran began holding back the waters of the Tigris, Euphrates, and other small rivers and tributaries on their lands, which Iraq relies upon heavily to feed its rivers. Consequently, the drop in water levels was clearly visible, and the loss

(1)Center for Civilians in Conflict, 2022. "If I Leave... I Cannot Breathe: Climate Change and Civilian Protection in Iraq," [in Arabic].

of water reserves reached 50 percent.⁽²⁾ However, Iraq's water problem is not new. Decades of wars, conflicts, mismanagement, and failed economic and political practices have contributed to the destruction of environmental infrastructure, exacerbating the crisis and weakening the response to water scarcity and pollution.

On July 16, 2023, Basra recorded a global record temperature of 50 degrees Celsius, although it had surpassed that figure in recent years. A main aspect of climate change globally has been a rise of 2 to 3 degrees Celsius in temperatures, due to an increase in the concentration of greenhouse gases to the level of 400 - 500 parts per million, estimated in carbon dioxide equivalent.⁽³⁾

(2)Al - Tarfi, Mouayad. 2022. "Iraq threatens to break off trade with Iran and Turkey due to the water crisis." [in Arabic] The Independent Arabia.

(3)Nawfal, Mohammad Noman. 2007. "Economics of climate change: impacts and policies." [In Arabic] Arab Planning Institute in Kuwait.

In Iraq, ranked fourth globally in the rate of combustion of associated gases, the average temperature is expected to rise two to seven times the global average.⁽¹⁾

The Iraqi Ministry of Environment website indicates that Iraq has joined various environmental protection agreements and protocols, including the Framework Convention on Climate Change, which Iraq joined in 2009. It also ratified the Kyoto Protocol to reduce the rate of greenhouse gas emissions to 5 - 8 percent compared to 1990. In 2021, Iraq joined the Paris Climate Agreement, which was established in 2015. After 2003, the Iraqi government also issued several national legislations to protect the environment from the adverse effects of climate change.⁽²⁾

Iraq's industrial sector lags behind other neighboring countries. Thus, although it does not rank as one of the highly industrialized and wealthy countries responsible for global warming,⁽³⁾ Iraq has nevertheless

recorded the highest rates of pollution in 2019, when it was responsible for 8 percent of global methane emissions associated with oil extraction and 0.5 percent of global carbon dioxide emissions.⁽⁴⁾ Moreover, the country ranked second after Russia in recording the highest rates of burning surplus methane gas from oil extraction operations.⁽⁵⁾ The Iraqi government has failed to concretely and effectively translate international commitments and national policies and programs on the ground, which remain without finding. For example, the three - year budget law (2023 - 2025) adopted by the House of Representatives does not contain financial allocations to mitigate climate effects. Instead, the government chose to demand international support.⁽⁶⁾

The environmental situation saw a rapid deterioration in the past decade

the countries most affected by and affecting climate change نتائج - غير - متساوية - من - الاحتباس الحراري - [Accessed on 21/2023/12/].

(1) Naim, Taleb. 2021. "Basra's People Suffocate with the Millions Burned Daily." Tareeq al - Shaab.

(2) Iraqi Ministry of Environment website. الاتفاقيات - البيئية - الدولية.

(3) Al - Jazeera Network. 2022. The Unequal Effects of Global Warming: Learn about

(4) United Nations Iraq 2020. Iraq mulls tackling its methane problem and reaping major benefits along the way.

(5) Human Rights Watch. 2023. "Iraq Gas Flaring Tied to Cancer Surge." [In Arabic]

(6) Annabaa Information Network 2023. "Iraq Confronting Climate Change: An Iraqi discourse different from the international agenda."

due to climate change. However, the impact is not limited to the agricultural sector and biodiversity. It poses a serious threat to fundamental human rights and impedes sustainable development and livelihoods, particularly in directly impacted areas like Basra, despite its access to the sea, the presence of seaports and major oil fields on its land, and its strategic location. The populations of those areas lack the capacity to adapt or mitigate the rise in temperatures, water scarcity, and pollution and the high levels of salinity. Consequently, they are being pushed to migrate from their native regions, creating severe economic and human burdens and exacerbating environmental, security, political, and economic challenges.

For women, the experience of climate change is different from that of boys and men. It influences historical and structural inequalities between men and women that shape the manner and extent of women's ability to lead, make decisions, take action, and provide solutions to address the problem. Explicit and implicit social norms and laws have imposed differential powers, roles, and responsibilities on women and men in

all aspects of life. In addition to caring for all household members, girls and women bear unequal responsibilities in securing food, water, energy, and other vital resources. Thus, women are exposed to the risk of harsh and harmful climate impacts, such as displacement, loss of food security, high health risks, and all forms of violence.

For decades, women in Iraq have faced the failure of political systems to address the equality between men and women justice from a holistic perspective, achieve and ensure women's enjoyment of political and economic rights, provide adequate social care, and enable them to escape from abusive relationships in the private sphere. Most of the discrimination against women in Iraq is multi-layered and rooted in the patriarchal structure in formal and informal institutions. Violence, discriminatory laws, and the hierarchical structure of society are supported and protected by the state, entrenching a culture based on portraying «ideal» women as completely subservient and dependent on men. The gap between men and women remains in access to sources of wealth and positions of power in state institutions. The rate of women's participation in the workforce

is only 13%, the second lowest globally after Yemen.⁽¹⁾

In times of crises and disasters, systematic discrimination against women is multiplied. This report seeks to identify the current challenges facing women in Basra and how climate change influences the consolidation of discriminatory practices against them. It pays attention to the complex, dynamic, and intersecting power relations and other structural and localized causes of inequality since women are not weak by nature. The research also highlights the methods used by women to mitigate the impact of climate change.

(1)World Bank Group. 2022. "Iraq Country Climate and Development Report."

Basra: City of Oil, Arms, and Protest

Basra, the third largest city in Iraq after Baghdad and Mosul, is referred to as the country's economic capital. It is the primary source of the country's oil wealth, with more than 15 producing fields, including the Rumaila field in southern Basra, the third largest oil production field in the world. The Iraqi economy depends on oil revenues, which constitute 95 percent of the GDP. Although Basra provides 80 percent of Iraq's national budget, many of its people face high levels of fragility, more than 50% of whom live below the poverty line and suffer from unemployment and lack of services compared other governorates.⁽¹⁾ Basra City is known for the spread of slums in all the city center's neighborhoods and commercial areas. The slums are home to population groups who moved from rural areas and the nearby southern governorates for economic and security reasons. Waste

accumulates in public and secondary streets, sewage flows between populated neighborhoods, and entire neighborhoods are either completely deprived of service infrastructure or the existing services are too worn down to be of any use.

After the overthrow of the Baath regime, Basra was controlled by the political parties holding power, which were mostly formed after 2003. These parties used democratic institutions such as the House of Representatives and provincial councils as a front and government institutions as tools to gain power and control economic resources. The relationship between them is fraught with constant tension, due to competition power that would allow them to control sources of wealth, oil production facilities, and export ports. Basra is located on the only water outlet for Iraq, where smugglers of oil and its derivatives are widely active. They also made alliances with some armed clan sheikhs based on illegal economic

(1) Rudaw Agency. 2019. "The People of Oil - Rich Basra Beleaguered by Poverty and Lack of Services."

interests. Most of these parties have armed groups outside the state's control but simultaneously intertwined with government security forces. They possess a variety of weapons, even heavy ones, in large quantities, which they use to control the governorate and its population.⁽¹⁾ With the spread of weapons, these factions have successfully evaded accountability. They imposed relations of fear and dependency on the people by force of arms, which is almost the only means of to deal conflicts in the Governorate.

Basra's tribalized character is somewhat different from the rest of the southern governorates, due to special historical and political contexts dating back to before 2003. Despite the official rhetoric of the former Baath regime claiming it was against tribalism, the establishment of states and the structure of power was based on activating the role of tribes and clans, integrating them into the official strategic, security, and economic institutions. Ultimately, a hybrid system was formed. It appeared modern but its essence was dominated

(1)Al Hurra Channel. 2021. "They Are Heavily Armed": The "challenge" of tribal conflicts in Basra.

by tribalism, particularly after the first Gulf War in 1991 after the defeat of the regime's security institutions and military machine. The clans were a vital alternative to compensate for the state's structural weakness at that time.⁽²⁾ After 2003, the security vacuum caused by the dissolution of the army and police forces allowed the clans to gain more military power. Some clans have larger weapons arsenals than the government's security forces. Thus, the pace and intensity of tribal conflicts escalated and became bloodier, with many men killed annually because of them.⁽³⁾

Most of these conflicts are about control of oil, weapons, and drug smuggling operation.⁽⁴⁾ Clans near the oil fields tend to put armed pressure on oil companies, demanding payments to clan members or providing jobs and infrastructure such as water and electricity. Conflicts between clans occur when one clan receive payments

(2)Abdul Jabbar, Faleh. 2002. "Between the party, the tribes and the clans, the fragile balance of the Iraqi regime." [In English] Elaph.

(3)The Emirates Policy Center 2022. Tribes of Basra: The Political, Social, and Security Issues.

(4)Taha, Ali. 2022. "The Permanence of Clan Battles in Iraq."

and others do not.⁽¹⁾ Police interventions to prevent those tribal conflicts are characterized by extreme caution or collusion with the clans. The police themselves belong to the clans, and any attempt to confront the militants ends with death threats and tribal disputes between the officer's clan and that of the gunman. Sometimes, the government sends the army to contain large armed tribal conflicts, since the soldiers come from outside Basra Governorate.⁽²⁾

Nevertheless, the government does not seem to be able to reduce tribal conflicts. Armed groups and clans continue to control legitimate and illegitimate economic resources. Conflicts are also increasing due to waves of internal displacement from the outskirts of the rural areas of the governorate and other southern governorates in search of economic resources. Unemployment rates and criminal activities are increasing among marginalized groups, especially those displaced by the drying up of the marshes, the decline of arable water, and

its high salinity. Climate change led to the disappearance of agriculture, animal husbandry, and fishing opportunities, the primary traditional economic forms in those areas.⁽³⁾

Despite the proliferation of weapons and tribal and armed control, Basra witnessed widespread waves of popular protests demanding jobs and objecting to the deterioration of services, poor governance, and the failure of local governments to address climate change impacts. In the summer of 2018, water levels in the Shatt al - Arab River dropped in an unprecedented manner, leading to high levels of salinity and water pollution. Dozens of cases of poisoning were reported, although some government agencies issued warnings about consuming water in Basra for human purposes due to deadly bacterial contamination. However, government agencies did not convey these warnings to the population.⁽⁴⁾ The situation coincided with a rise in temperatures and increased electricity rationing.

(1)The Emirates Policy Center 2022. Tribes of Basra: The Political, Social, and Security Issues.

(2)Taha, Ali. 2022. "The Permanence of Clan Battles in Iraq." [In Arabic].

(3)Rahi, Qais Nasser. 2022. "Understanding the Clan Aspect of Basra's Society Is a Necessity for Social Peace."

(4)Taher, Ali. 2019. *Behind Events in Basra: Problems and Possible Solutions*. [In Arabic] Friedrich Ebert Stiftung - Amman Office.

Massive popular protests erupted in Basra are drivers of violent conflict around the Governorate. Security forces used excessive force and live bullets on the long - term, which is a threat to to disperse the protesters, many of social peace and the country's stability. whom were injured, killed, or detained. However, the protests soon returned to Basra in 2019 in solidarity with protesters in Baghdad and other regions.

During the Iraq Climate Conference held in Basra in October 2022, the Prime Minister and other officials confirmed that the governorate has priority in government measures to confront climate change in Iraq due to its critical environmental situation. The Prime Minister considered the success of the procedures in Basra to confront environment to be an indicator that the government is serious in addressing climate change effects throughout country.⁽¹⁾ The current government's initiatives have proven to be positive and an official recognition of the severity of the environmental situation in Basra. However, there is an urgent need to shift from recognition to concrete and effective measures on the ground. Along with other factors, environmental crises

(1) Asharq News. 2023. "Iraq Announces Climate Change Strategy: Vision 2030." [In Arabic].

Research Methodology

This paper is based on a desk review of research papers and reports and primary data collected through 46 in - depth interviews with 13 women from the countryside and 15 women from the city. To understand the situation of women from a men's perspective, 18 men from the countryside and the city were interviewed. The research adopted an individual - centered approach to understanding society's challenges and the impact of climate change through women's experiences. It adopted in - depth, semi - structured interviews to collect data, as it helps to reach marginalized groups and gives the interviewees sufficient opportunity and space to express their opinions and reach the self - understanding they add to existing positions and conditions. Seven researchers were trained for three days on qualitative research methodologies, data collection, and interviewing. The research methodology took into account research ethics during data collection, such as obtaining informed consent to conduct interviews, maintaining the confidentiality of data and the interviewees' identity, and giving them total freedom to withdraw from the interview or not answer questions they do not wish to answer, taking into account hierarchy of power considerations between interviewers and interviewees. The researchers faced challenges related to the difficulty of conducting interviews with rural women due to social restrictions that prevent them from talking to strangers, even if they were also women.

Social and cultural challenges to women in Basra

Women in Basra's society often face unique challenges due to the nature of cultural and societal norms that restrict their rights and opportunities. As indicated by all the interviewees, women face multiple challenges and obstacles, which have a negative impact on their daily lives. They are difficult to confront individually, as they are always intertwined with the regime's structure. Women are forced to respect standards that go against their interests, due to a lack of alternatives and options. The government's attempts to ensure women's access to their fundamental human rights appear to be faltering. They fail to address the root causes of women's lack of rights and limited access to education, economic independence, freedom of movement, and legal protection.

One of the interviewed men described the challenges facing women in Basra as being more severe compared to other governorates, due to the particular nature of tribal control

and weak law enforcement: «*Women face many problems in their daily lives, at work, home, and the social and cultural sphere. Basra is part of the southern governorates that are less open than other regions like central and northern Iraq. It is governed by tribal customs. Women face numerous problems, especially when they go out to the street, to work, and to the market. They may encounter attackers or harassers. They also suffer a lot at the level government departments and associative work.*»⁽¹⁾

The following paragraphs illustrate the challenges facing women and girls in Basra Governorate. Some are common with the challenges of women and girls in other governorates and other are particular to the region:

Women's Participation in the Public Sphere: A Structural Challenge

Women's participation and presence

(1) Interview, man, single, bachelor's degree, Abi Al - Khasib, 26, environmental researcher, 15/10/2022.

in the public sphere has always been subject to political considerations related to the history of the public sphere's emergence in Western societies as a liberal bourgeois space. Along with other marginalized groups (workers, the poor, immigrants), women were deprived of appearing and participating in public life. The sharp division between the private and public sphere is a result of historical, economic, and political contexts that helped impose male hegemony within the social sphere. The division of labor was established on the basis of sex as a result. The tasks and responsibilities of women inside the home were limited to cooking, cleaning, and caring for children. They were treated them as sexual beings under the control of men. But the historical perception - or what the patriarchal system in the modern era is trying to confirm - that women's roles were limited to the private sphere without them having public responsibilities and roles - is far from the truth, as women have historically participated in all the work that men do in the public sphere.

Around the world, societies have witnessed political and social developments mainly related to

women's access to education and work outside the home, an accelerating pace of technological discoveries and inventions, and developments in communication. However, women's participation in the public sphere has remained hostage to the male political systems' understanding of the division of labor between men and women and spaces. Politically, these trends were legitimized through laws, regulations, and policies governing the lives of men and women. However, they ignored the social environment, allowing it to exercise dominance over women's lives under the authority of men.

Participation in the public sphere is subject to double standards, which view the «political» man as an absolutely free, rational, and independent, enjoying dignity and social respect. In contrast, women are viewed as a «non - political» being, emotional, irrational, subordinate and dependent men, and ineligible for citizenship rights. Thus, restrictions and obstacles are imposed on women outside the domestic space, and they are raised as non - political subjects and second - class citizens.⁽¹⁾

(1) Zybur, Wernoiko 2018. democratic community and the problem of exclusion:

Women's presence in the public sphere is connected to the fear of their liberation from male control and the relationships of domination and subordination imposed on them in the private sphere, to more equal and equal relationships with men in exercising political and economic roles. The greatest fear is that women would be able to control their sexual lives.⁽¹⁾

Many of the interviewed women stated that moral, societal, and political control over the public sphere is linked to the patriarchal value system regarding the hierarchy of relations between men and women in the private sphere. Women's exit into the public sphere is viewed with great caution and fear, so it becomes necessary to impose censorship and control on their movements and limit their presence, except in emergencies. In many cases, women need prior approval from their fathers, brothers, or husbands to go out in public. Young women need

their mothers' approval. Many women cannot escape this situation. They are also not allowed to go out in public without being accompanied by a family member. Thus, their lives are dependent on the chaperone's time. In many cases, they are not available, depriving women of important opportunities to develop their personal lives.

According to one of the interviewed women, the lack of a chaperone was one of the biggest obstacles depriving her from important opportunities. «In our Basra society, we cannot go out when we want. We cannot go out to shop or work. It is difficult. Women are forced to find a family member to join her, her mother, father, brother, or sister. I lost many opportunities to the situation. For example, when I want to go to a job interview, my father or mother may be busy. This is one of the problems that I faced,» she explains.

The division of physical spaces into what is masculine and what is feminine and the deepening of cultural differences between the sexes in the context of socialization deprives women of opportunities to acquire life skills and hinders them from building their personalities and self-esteem. These issues appear when women

about women's underrepresentation in the public sphere.

(1) Abdallah, Zakiya. 2017. "Mixing and the gendered dynamics of public space: A gender approach to the representations of gender relations among Algeria's university youth." [In Arabic] *Journal of Humanities and Social Sciences*. Issue 302017/9/.

try to communicate or deal with a situation in public.

According to one of the interviewees, not going in public impacted building her personality since she had not gone through life experiences that would give her experience in dealing with public life: *«Not going out of the house had a great impact on building our personalities. As women, we are very shy when we express ourselves and our opinions in public places. For example, if we go to a restaurant, we are ashamed to ask for exactly what we want or point out an error in our account and other things. This makes us very afraid and lacking the courage to speak out.»*⁽¹⁾

Censorship and preventing women from going out in public is not limited to families. Society (neighbors, relatives, acquaintances, and friends) also contributes to entrenching the cultural and social determinants for women to go out and participate in public activities in the public sphere: *«Women face difficulties if they decide to leave the house. Even if the family is convinced, they need to confront society and the people around*

(1) Interview, woman, single, Bachelor's degree in Accounting, housewife, 25 years old, 122022/10/.

them, who have a significant impact on the family. More than often, they refrain from making decisions, to avoid society's blame and rejection.»⁽²⁾

In conservative religious contexts, the boundaries and features of the public sphere are set through the appearance of women and social mixing between men and women. One interviewee mentioned that society does not accept the idea of change. The perception of women as inferior continues to govern the orientations of its members: *«Society views women who go out alone differently from those who go out with their husbands or brothers. Our society is still reactionary and does not accept these matters. Society's view of a woman is one of inferiority and that her only job at home is cooking and doing household chores. They do not want women to go out and participate in daily life, work, or other matters. Some say they cannot trust women. However, the real reason is the lack of confidence in society and not women in particular. However, they are prevented from going out alone.»*⁽³⁾

(2) Interview, single woman, bachelor's degree, Abi Al - Khasib, 25 years old, teacher. 152022/10/.

(3) Interview, man, single, bachelor's degree, Abi Al - Khasib, 26, environmental researcher. 152022/10/.

Women Do Not Receive Support from Male Allies Due to Militarization

Men are pressured by social norms and stereotypes to adhere to the cultural and social traditional roles around the idea of a «real man» in their silent daily lived experiences. Men are expected to be providers and protectors. For example, a man who fails to protect his wife, daughter, or sister from working in the field is exposed to criticism, blame, and threats of losing his social status. Nevertheless, during the interviews, many men confirmed they are exposed to societal oppression in many situations because they personally support women and are in favor of the justice between women and men. The situation has changed from the past, but the effects of the changes may be slow and not noticeable in some contexts. Many fathers are currently keen on educating their daughters, and some families even choose private institutions instead of poor government facilities, to ensure that girls receive a good education.

During the interviews, it was clear that men have become more inclined to support women's rights and that depriving women of these rights is

not related to society. Instead, it is an inherent structural problem related to the political and security contexts that led to the growth of tribalism. Clans are masculinist hierarchical entities, based on the idea of traditional loyalty to the group at the expense of loyalty to society and the state. They reject everything that symbolizes femininity in the definition of traditional masculine identity and support the hierarchy between the sexes. Women are not active or present within the clan structure and their status is diminished. They are often used as a means to resolve tribal disputes and offered as compensation. Women here are called «fasliya» [seasonal]. Some practices within tribal customs against women are essentially against Islamic law. However, they remain acceptable in some tribal areas around Basra Governorate. During an interview, one man confirmed that

«The clans in Basra have a strong presence. Unfortunately, women are restricted by the clan and have their boundaries. These boundaries are illogical. For example, they do not share their opinion on many important matters. Likewise, they do not have the right to speak on their matters. This deep - rooted

problem is difficult to solve. Neither clerics or politicians can solve these societal problems because they are deeply rooted.»⁽¹⁾

The interviews also stressed that men who support women's participation in the public sphere face pressures related to the spread and increase of violence against women (VAW) in the public and private spheres due to the weakness of law enforcement institutions and the low level of awareness of employees in these institutions of VAW concepts. Thus, these men face a major challenge related to their traditional role as protectors of women in confronting these practices. They are not yet ready to bear the consequences of failing to protect their women from violence, which places additional burdens on women. The solution in these situations is usually to prevent women from going out to protect them from harassment. The following was confirmed by one of the interviewees:

«We live in an Eastern society. Eastern societies, male - controlled societies, are almost similar in all countries of the region, including Iraq and Basra. We in Basra face many problems. Women face old and new

(1) Interview, man, married, bachelor's degree, 26 years old, employee, 192022/10/.

problems. I will talk about the new ones. For example, women cannot go out and are not free. They are subjected to harassment on the street, in markets, and elsewhere. I mean, I am married and my wife tells me many times about someone harassing her. He said something or acted in a shameful way. Yes, these things happen. People have no upbringing conscience to deter them, and there is no law that prevents these practices.»⁽²⁾

Iraq witnessed many wars and armed conflicts, the most recent of which was the war against ISIS terrorist groups in 2014. They had a manifest impact on Basra's society. The city recorded the highest number of Popular Mobilization Forces (PMF) volunteers who joined the security forces and the army in the fight against ISIS. The number reached more than 600 thousand fighters, according to statistics prepared by the local government.⁽³⁾ The largest percentage of these volunteers were civilian men, some of whom had never carried a weapon

(2) Interview, man, married, middle school, Abi Al Khasib, 50, employee, interview form 3. 182022/10/.

(3) Al - Alam Channel. "Basra Is First in the number of Popular Mobilization Forces volunteers. How many are there?" [In Arabic] .

in their lives.⁽¹⁾ Their participation in the war and the efforts made by some official and unofficial parties have expanded and entrenched the militaristic tendency that limits men's expectations to being violent to be socially accepted as an «ideal, brave man.»

Hegemonic masculinity is most evident when it is associated with militarism, «the armed man.» Therefore, the alliance of armed groups with armed clans and the spread of militarism in society contributes to consolidating the hegemony and influence of traditional masculine norms that oppose femininity. The distinctive position of men in society is strengthened. Men are supposed to avoid positions, roles, and behaviors described by society as being exclusive to women. However, instead of promoting change towards masculine norms that support women's rights, an increasing number of men support ideologies that legitimize the hierarchies between men and women as opposed to men who support women's rights.⁽²⁾ This demonstrates the extent

of the challenges that «unarmed» men face in demonstrating their positions in favor of the justice between men and women, on the one hand, and explains the increase in violence against women and girls, on the other. Consequently, the security situation for women became more difficult and their participation in the public sphere very weak, as one of the women interviewees stated:

«There is no safety for women, because there are no laws or follow-up by police patrols. The clans intervene and impose themselves. The clans are above the law. The presence of police patrols is limited to the streets and public intersections. They are almost non-existent inside residential areas. In fact, the police themselves are afraid of the clans and armed groups, so women and families do not feel safe, and when a woman leaves the house, a member of her family must accompany her.»⁽³⁾

Persistent Violence Against Women and Girls in Basra

Basra has recorded some of the

Versus a Feminization of Men's Norms,"

(3) Interview, woman, married, Women's Teachers' Institute, Karma, 38 years old, Teacher, 202022/10/.

(1) Interview, man, 45 years old, laborer, married, Al - Madaniya District, Basra. 182022/10/.

(2) Iacoviello, Vincenzo and others (2023). "Men's Gender Norms and Gender - Hierarchy - Legitimizing Ideologies: The Effect of Priming Traditional Masculinity

highest rates of violence against women in all its forms among Iraq's governorates. The area also witnessed a regular pattern of mass killings of women, carried out by the former regime during a campaign known as the «Faith Campaigns.» The so - called Saddam Fedayeen beheaded dozens of women in Basra's public squares under the pretext of violating Islamic law and societal norms. After the invasion of Iraq in 2003, the hostile campaign against women continued, and violations affected all women. Dozens were subjected to random killing. In 2004 - 2005, extremist religious armed groups distributed leaflets threatening to kill any woman who did not adhere to the Islamic hijab, forcing non - veiled women to wear head coverings and long dresses that cover the entire body for fear of being killed. The number of women killed in 2006 reached 96.⁽¹⁾ However, the threat was not limited to women victims, but also extended to lawyers who represented victims of rape and other forms of violence. In general, most crimes known as «honor

(1)Khalaf, Safaa. 2010. "Iraqi Journalist Uncovers the Secrets of the Killing of Women by Militias in Basra." [In Arabic]

killings» are not reported by family members, who either throw the bodies in deserted places or bury them.

However, the number of women murder cases reached an unprecedented level in 2007, as security sources recorded 145 murdered women. The United Nations Assistance Mission for Iraq (UNAMI) documented the killing of 44 women in 2007, most of which were recorded against unknown persons. According to security sources, the bodies of women victims were subjected to abuse and torture before being shot dead. The murders coincided with a campaign of defamation and moral degradation of these women, claiming that they had a bad reputation, and killing was a justification to preserve society's honor. This campaign of defamation prevented women's the families of women victims from demanding that the perpetrators be pursued and the true motives of the killing be revealed.⁽²⁾

The security situation remained a problem for women and girls in Basra until the time of conducting the

(2)Rashid, Asmaa Jameel. 2019. "Mechanisms for Protecting Male Authority in a Tribal Structure." [In Arabic] Arab Scientific Heritage Journal. Issue (42) 2029.

interviews in 2022. All the answers during the interviews (women and men) regarding the problem of women going out to the public sphere were linked to the lack of safety and the practices of violence against them in the street, markets, and workplaces, whether in the government sector or the private sector. Cases of verbal and physical harassment of women of all ages have increased widely:

«The most significant obstacle that women face in general is the lack of safety in the streets. When women leave the house, they do not feel safe, so they go out with a member of their family. Even if their family trusts them, they are afraid of society and harassment, especially young women, but even older women. These days, the phenomenon of harassment has spread widely, against young and old women. I describe it in quotes as 'barbaric'.»⁽¹⁾

Murders and violations against women in Basra continue under a state of impunity. However, they do not receive government attention, and it is also difficult to obtain data and statistics on murders against women, which are

(1) Interview, woman, single, university student, Abi Al - Khasib, 23 years old, 282022/10/.

usually recorded as suicide attempts. Such families often receive sympathy and tolerance from the police, if not encouragement to do what they consider to be the right thing. The perpetrators are released without investigation or charges, and the government remains silent, treating the cases as private matters.

Women in Basra lack a sense of security, due to the absence of deterrent laws that prevent violence. The weakness of law enforcement agencies and the collusion of police officers with the perpetrators helps exacerbate the violence. One of the interviewees mentioned that women cannot lead their normal lives due to fear of being exposed to harassment, because the country is witnessing a state of chaos and the return of customs and traditions that control women's lives:

«The problem and challenge we face is safety. Loss of security increased the pressure of customs and traditions on us. Their influence has developed and has become common. This means that now girls cannot walk in the street freely and safely. They cannot work everywhere. They cannot go out and practise their normal lives, such as sports, walking, and shopping. They need to have a family members

alongside.... I cannot go out alone and go to work without the driver being someone I know well. Just standing in the street to call a taxi will expose me to harassment. This is a common thing all women face.»⁽¹⁾

Protests broke out in Basra in 2018, demanding that the government provide electricity, potable water, and improve public services. Women participated with great momentum in the squares, despite the use of excessive force and live bullets by security forces and armed groups that the government claimed were unknown parties. Many protesters were killed. Women activists faced a systematic campaign to exclude them from participating in the protests. With the return of protests on October 1, 2019, in Baghdad and the rest of the provinces, including Basra, women joined in large numbers to protest with men for the first time in many years. The security forces and armed groups deployed in Basra faced these protests, like their predecessors, with violence and brutal repression. Basra recorded the highest cases of killings and assassinations against activists and protesters. An

(1) Interview, woman, single, diploma, 38 years old, works in civil society organizations, 9/2022/10/.

interviewee confirmed that the violence in Basra during the protest turned into something like a street war. The sounds of bullets were everywhere:

«The situation is completely unsafe. We are afraid to leave the house. We do not know what is happening. A stray bullet could end our lives. It became like a street war ... during the demonstrations. Because we live in the Shatt al - Arab area near the Iranian consulate, bullets were everywhere and our homes were hit. Bullets reached our neighbor and he sustained a wound in his hand...»⁽²⁾

Targeting women, especially activists, continued after the 2020 protests during the Covid Pandemic. Official and unofficial parties launched a defamation campaign and accusations of collusion against women activists, following the meeting of the American consul in Basra with a group of women activists and politicians from different parties. The campaign began on social networking sites, directing accusations against women activists by name, and their photos with the US consul were published. The accusations grew and

(2) Interview, married woman, elementary education, Shatt al - Arab, 36 years old, housewife, 20/2022/10/.

became direct threats of death and liquidation. This fabricated campaign received an official response from the security and intelligence institutions who summoned these women and interrogated them. As a result of this campaign, a young woman, Reham Yacoub, was assassinated on August 19, 2020. She was shot in broad daylight by unknown gunmen after receiving direct death threat messages, and other women were subjected to murder attempts in the same manner.⁽¹⁾

Reham Yaqoub was not assassinated because of the political protests against the government and rampant institutional corruption. She withdrew from the protests after 2018, and was not one of the organizers of the 2019 protests. The assassination aimed to limit the role of women in Basra and prevent them from exercising new social roles, which the extremist parties considered as a resistance to male control. Riham was an influential figure in civil society, known among the women of Basra due to her work as a fitness trainer and nutrition expert. She called on women to adopt

(1) Arab Reform Initiative. 2020. "Eliminating the Protests? The Motives and Circumstances of Basra Assassinations," [In Arabic]

a healthy lifestyle and practice walking in the public sphere and urged them to work and study and strive to create spaces and a way of life away from male authority. Her killing is a stark message to every woman trying to rebel against the patriarchal structure, and this is what actually happened. Many women activists withdrew from civil work or began to engage in civil activism with extreme caution and far from topics related to women's empowerment. These assassinations and systematic practices of violence affected All women in Basra, where cases of domestic violence have increased significantly in rural areas and the city's densely populated popular areas. One of the interviewees, a lawyer who handles domestic violence cases in the courts, explained:

«Women face domestic violence greatly in the city's center and in rural areas around it. If you ask the Department of Family and Children, you will find thousands of VAW cases. Violence is the first challenge facing women in Basra, due to the lack of strict legislation preventing it and the social structure, which prevents women from demanding their protection and puts the blame on them. It is why, because of my work as a lawyer, I have diagnosed many

cases of sexual harassment and extortion. However, women cannot report them to the judiciary or the clan for fear of scandal, because the blame comes from even the judiciary and the police.»⁽¹⁾

Many interviews showed that the persistence of VAW in Basra is due to the cultural, social, political, and legal system that supports violent practices. Many of the women interviewed diagnosed the root causes of the persistence of violence. They begin with the idea of discrimination between males and females from the early years, through upbringing within the family. Then comes the school and its role in entrenching hierarchical ideas and perceptions between men and women, entrenching the idea that women have a lower status:

«The first reason is the family. When a child is born, he is raised with the ideas that you are a man, you can do anything and control your sister. This is the family's problem. Then comes school, which develops these ideas and continues to do so until university. If it happens that someone offends any woman and finds no one to support her, meaning, for example,

(1) Interview, man, single, Bachelor of Law, 29 years old, lawyer, 122022/10/.

I, as a man, offended my wife or daughter, what is the deterrent? Should there be a governmental deterrent, apart from the issue of conscience and humanity? But there is no law for the aggressor to fear. Those who are safe from punishment misbehave. People who attack women have no deterrent.»⁽²⁾

Women's Economic Independence: An Unattainable Goal

Iraq's has a rentier economy. It is mainly dependent on crude oil, whose exports make up 95 percent of government revenues and 62.4 percent of the GDP in 2016. The contribution of the agricultural and industrial sector is no more than 3.1 and 0.9 percent respectively.⁽³⁾ However, the living situation in Basra is challenging, with widespread unemployment and poor services due to rampant corruption and the lack of funding by the central government.⁽⁴⁾ Like many parts of

(2) Interview, single woman, bachelor's degree, Abi Al - Khasib, 25 years old, teacher, 152022/10/.

(3) Al - Rubaie, Zahir Abdel - Zahra et al. 2018. "Economic resources in Basra Governorate and their impact on the strength of Iraq." [In Arabic] *Basra Research Journal for Human Sciences*. Volume 43, 2018.

(4) BBC News. 2018. "Answering your

Iraq, Basra faced challenges related to the justice between men and women disparities in employment. Historically, women's labor force participation rates in Basra, as in other regions, have been lower compared to men. According to the Basra Governorate Council in 2014, the unemployment rate of women in Basra Governorate reached 37 percent, which is double the unemployment rate of men (16 percent).⁽¹⁾ At the announcement of the results of the national labor force survey in Iraq in July 2022, the ILO representative confirmed that the rate of women's participation in the labor force is the lowest in the world. Out of 13 million women, the number of working women is one million, or 10.6 percent compared 68 percent for men. The unemployment rate for women remained at 28.2 percent, which is double the unemployment rate for men, 14.7 percent.⁽²⁾

Women's economic independence is

Questions: Seven Things to Know About the Events in Basra."

(1)Al - Mada Newspaper. 2014. "Unemployed Women in Basra are Double the Men." [In Arabic]

(2)Nina News. 2022. "International Labor Organization: One Million Working Women Out of Thirteen Million in Iraq." [In Arabic]

critical at the individual and community levels. It is linked to the state's well - being, growth, and economic development. When women are able to make decisions, choose work, earn money, manage it, and control it, the possibility of their economic dependence on others, especially men, decreases, and poverty levels drop. Economically independent women are less vulnerable to various forms of violence, exploitation, abuse, and discrimination. They have the ability to leave abusive relationships, seek support, and resort to the law. Women's economic independence is a vital and important aspect of achieving the equality between men and women and social progress, facilitating women's participation in political activities, advocating for their rights, and promoting a more equitable and just society.

All the interviews agreed that one of the most important challenges facing women in 'oil - rich' Basra is the marginalization and poor economic situation of large groups of women, especially rural women. One male interviewee described the situation of women in the countryside as disastrous in all aspects. They work all hours of the

day in household chores and also to earn a living for their families by selling food products such as cheese. However, they lack the ability to control the economic resources that men ultimately seize:

«Women working in villages and rural areas are deprived of equal opportunities to work with men. On the one hand, women are treated as if it is their responsibility to provide their daily sustenance and their children's sustenance. They are also fully responsible for household chores. Thus, their burdens exceed their capacity, unlike men who act as clan sheikhs, even if they are not. They are always at the Diwan. Therefore, women in villages and rural areas work and toil. There are those who partake in local industries, such as cheese making, agriculture, and so on. They bear economic burdens and problems towards the family, themselves, and society, but without this improving their personal situation at all.»⁽¹⁾

According to an ILO report, Iraq tops the list of 164 countries in terms of the average time women spend caring for the home and children. They undertake 86% of household chores for no less than six hours a day, compared to one hour or less

(1) Interview, man, single, Bachelor of Law, 29 years old, lawyer, 122022/10/.

for men.⁽²⁾ The figures were confirmed by the interviews. Between housework, child care, and work outside the home, women in the Basra City carry out responsibilities and jobs that exceed their capacities. The average wages for women in the private sector in Basra Governorate is much lower than the average wages for men. Women are also denied legal protection during pregnancy and childbirth:

«Most private sector companies and offices do not pay women high wages. They are less than what they give to men. They do not meet needs, even if the women have university degrees, are competent, and have experience. The only reason is because they are women! It is because they need to work and because have a family to support. Not only wages, there are no guarantees at work. There is no application of the Iraqi labor law. Women are physiologically different from men, so they need a special status during pregnancy and childbirth. Women must have privileges at work ... But women undertake more work than they can handle because they need to work.»⁽³⁾

(2) Kirkuk Now. 2021. "Nine Out of Ten Women Are Outside the Country's Job Market." [In Arabic]

(3) Interviewer, woman, married, secondary education, Qurna, 32 years old, housewife, 202022/10/.

A 2021 report by the Ministry of planning, in cooperation with the ILO pointed out the presence of large gaps between women and men in terms of work and paid economic activity. The percentage of women who are capable of paid work but are outside the labor force was 73.4 percent, while the percentage of men was 26.3 percent. Therefore, the percentage of women working as wages out of the total working population was only 7.6 percent, compared to 58 percent for men. It means that most of women's economic activity is in unpaid work. The interviewees agreed that the bulk of women's economic activity in Basra is limited to unpaid work, including providing care for elderly and sick family members. As for married women, they are required to care for their husband's family, because the extended family pattern is still prevalent in Basra:

«My responsibility is not limited to taking care of my children and household chores such as cooking, cleaning, and washing clothes. Rather, I have to take care of my husband's family because we live in one house. My husband also has many requirements. He wants his food ready as soon as he gets home, and he wants his

clothes clean and ready. That's a lot of work. I move from one task to another non - stop.»⁽¹⁾

Another interviewee mentioned that she is married to dozens of people, meaning that she has to take care of her husband's family and relatives, and that they all interfere in her life and decisions. For her, it is impossible to think or dream of having paid work outside the home, after she was forced to leave school when she was young.⁽²⁾

Housework and care provided by women, while essential to the functioning and well - being of families and communities, are often not recognized as part of the formal economy. However, working women face more pressure than housewives, due to the additional burdens of their responsibility inside the home and work outside.

«It is true that housewives have many problems, mainly housework. However, working women suffers more, because they

(1)Interview, woman, married, elementary school, Shatt al - Arab, 36 years old, housewife, 202022/10/.

(2)Interview, woman, married, master's degree in translation, 38 years old, works in an international organization, 212022/10/.

are responsible for the housework and their jobs outside the home. They are forced to complete their tasks at night or after work, which is an additional burden.»⁽¹⁾

Social standards and traditional roles for men and woman play an important role in perpetuating the unequal distribution of unpaid work, depriving women of economic resources. Statistics confirm that 36.7 percent of the young population was uneducated, unemployed, or untrained, 52.3 percent of young women compared to 22.1 percent of young men. Cultural norms expect women to provide care and raise children, while men are expected to focus on paid work. According to statistics from the Iraqi Ministry of Planning, the rate of paid women workers in the private sector is 29 percent compared to 65.9 percent of men.⁽²⁾

However, 70.5% of women prefer to work in the government sector. The largest percentage of women working in the public sector is concentrated in education, health, and services similar

(1) Interview, man, single, middle school, Basra, 30 years old, self - employed, 202022/10/.

(2) Ministry of Planning, Central Statistical Organization, ILO. 2021. *Labor Force Survey in Iraq 2021*.

to their traditional roles. The number of women in the public sector is crowded at the horizontal level. Women occupy only 17.5 percent of administrative positions, while the share of men is 82.5 percent.⁽³⁾ Sometimes their share decreases and at other times women disappear at the vertical level. Women occupy zero percent of the position of general director in the nine ministries.⁽⁴⁾ One of the interviewees indicated that women in Basra do not hold senior positions in government institutions or local administration:

«In Basra, no woman holds the position of college dean or general director, or holds a position at the local administration level. I cannot believe that no women is capable of holding such a position!»⁽⁵⁾

Education: A Constant Challenge for Women in Basra

There is a strong link between

(3) Ministry of Planning, Central Statistical Organization, ILO. 2021. *Labor Force Survey in Iraq 2021*.

(4) Ministry of Planning, Central Statistical Organization. 2018. *Gender Issues in Iraq's Ministries and State Institutions 2018*. [In Arabic]

(5) Interview, woman, unmarried, bachelor's degree, works in a local civil society organization, 42 years old, 272022/10/.

education and economic independence. Education provides women with the opportunity to gain valuable skills and qualifications, often required to enter many paid professions. They include technical skills, knowledge of specific industries, and possession of professional certifications. Women, especially girls, in rural areas of Basra suffer from major obstacles related to their ability to access education. The decision to leave school in the early years is made by families for many reasons, mainly the parents' inability to cover school fees, so girls are deprived of education. In general, families invest in educating boys because they are responsible for providing support, while a girl's future role is limited to inside the home. The second challenge that deprives girls of education is the lack of schools and their distance from homes. In one area in northern Basra, there is one school on an area of 20 square kilometers. The nature of the demographic distribution in the Iraqi countryside differs from some societies. In Iraq's rural areas, the families are distributed far from each other. On the other hand, the rural populations in some countries gather in one area. Thus access to public services

such as schools or hospitals is easier and faster. However, there is a change in families' attitudes towards girls' education:

«By God, I pray to the Lord of the Worlds that our daughters and sons can complete their education, because they will help us in the future. When my children were in school, they were smart and loved to study. It was possible for them to become engineers or lawyers, but our daughters were wronged. We could not let them complete their studies. Unfortunately, our daughters were really wronged because of our difficult economic situation.»⁽¹⁾

It is becoming more difficult for women and girls to access education, since rural areas in Iraq lack public transportation. The use and driving of private cars for transportation is exclusive to men. Women and girls are not allowed to drive. Boys and young men can use bicycles and, more recently, tuk - tuks for transportation. But these means of transportation are also forbidden for women and girls. The situation coincides with the low economic level of families. They do not

(1) Interview, woman, married, primary school, Abu Al - Khasib, 48 years old, housewife, 142022/10/.

see the benefit of educating girls, and focus on investing in educating boys to improve their economic level in the future. Ultimately, girls are destined for early marriage. This was confirmed by one of the interviewees:

«Many areas, especially in rural areas and border villages, do not allow girls to go to school. Of course, there are several reasons including the economic situation. Families cannot afford the most basic school supplies, such as books and stationery, and most importantly, transportation fees. When the household's income is low, they cannot afford transportation fees. Since they do not care much about girls' education, they forbid them from going to school, unlike boys, because they can use bicycles and tuk - tuks for transportation. As soon as girls leave school, they are married off at 14 years of age or younger, and they begin to bear responsibility for their husband, husband's family, and children, although they are basically children.»⁽¹⁾

(1) Interview, woman, married, master's degree in translation, 38 years old, works in an international organization, 22022/10/.

Women in Basra: Confronting the Impact of Climate Change and Pollution

The impact of environmental degradation on the lives of women and girls in Basra differs from that befalling men. Women's conditions are becoming more fragile, especially those who live in areas directly affected by desertification, drought, and pollution. The interviews confirmed that women are the first population group to be affected by climate change by virtue of their roles in caring for the family and their direct responsibilities in dealing with and adapting to the new conditions imposed by desertification, water salinity, and pollution. Social and behavioral prohibitions imposed on women because of culture and social norms multiply the brunt of the effects of climate change, making them more harsh and deepening the weakness and fragility of women's conditions now and in the future. According to interviews conducted with women and men in Basra, women confront the impacts of climate change as an imposed reality,

as will be explained in the following paragraphs:

Climate Change and Increasing Salinity in Basra: Additional Tasks and Burdens on Women

Among the primary forms of environmental deterioration in Basra is the significant increase in water salinity in recent years. The waters of the Shatt al - Arab have been unsuitable for human use since the 1980s. Successive governments have tried to confront the increase in salinity and feed the liquefaction system with fresh water by establishing the Al - Badaa Canal and the Shatt Al - Arab Canal.

Women's multiple water needs are often not taken into account in official policies and water management processes, which regard families as mere water consuming units, due to cultural norms and perceptions of the division of labor between the sexes and the roles and responsibilities assigned

to women and men. In general, women are more connected to water than men in daily life, as they are responsible for providing water suitable for human consumption. Cleaning, washing, preserving, storing, and preparing food are all tasks that require the use of water suitable for humans, which women carry out to meet the needs of family members and maintain their health.

During the interviews, women mentioned that the burden of work inside the home doubled with the increase in water salinity and pollution. Water suitable for human consumption does not reach homes on a daily basis, and, often, salty water is pumped. Therefore, families usually do not fill the tanks located on the roof of their homes, connected to the water pipe network inside the house with salt water. Instead, they wait for usable water to be pumped.

«To be frank, drinkable water is pumped at specific times. Sometimes it is two hours a night, and we may fill the tanks with safe water and sometimes not. There are a few areas to which fresh water is pumped. I am a resident of the Al - Awja area, and safe water is

only pumped for us for three hours. Salt water is pumped the rest of the day.»⁽¹⁾

To meet water needs, families with good economic standing can buy potable water and pump it into tanks located on the roof of the house. *«For me, on the day salt water is pumped, we do not approach it, we do not use it, and we do not fill tanks. We buy potable water at home. We also own a water purifier, because even what we consider potable water is salty, but to a lesser degree. I am able to buy potable water, but others cannot, unfortunately,»* said one interviewee.⁽²⁾ Limited or low income families buy safe water and fill it in separate small tanks, in quantities sufficient for basic needs only. Here, women's burdens vary in dealing with these situations. Women in poor families are forced to carry safe water from small tanks when doing household chores, because it is not connected to the home's pipe network. Carrying water is a daily task usually undertaken by women and girls, which causes fatigue and an

(1) Interview, woman, single, Bachelor's in Accounting, 25 years old, housewife. 122022/10/.

(2) Interviewee, woman, married, middle school, Abi Al - Khasib, 40 years old, works in the private sector. 222022/10/.

additional burden on women, in addition to long - term health consequences, as confirmed by one of the interviewees from a rural area:

«I swear to God, we are yet to adapt to the water problem. There is additional physical effort, because we store water in a small tank the size of a quarter of a ton every week. I carry water all day long. This is additional effort. Instead of having water available in the taps, I carry it, because I do not have it. The older children I depend on, in fact, they depend on me. I get tired a lot because my health is not good. I used to fill the tank every two or three weeks. Now, because of the long periods of pumping usable water, I have started filling the tank every week. As the owner of the tanker car knows, the water does not come quickly. I suffer a lot. When he is late, and I keep waiting a day or two, this is an extra effort.»⁽¹⁾

Working and non - working women devote most of their time to routine cyclical reproduction activities like care and housework. Not only is this care provided without pay, but it is usually of no value and invisible to society.

(1) Interview, married woman, middle school, Al Karma, 60 years old, employee, 202022/10/.

Women provide long hours of care without specific beginning or end. It is not possible to specify a time to care for a sick or elderly family member. This is called cyclical time, which is linked to the reproductive role inherent in women, because it represents the continuous cycle of life. Conversely, time for men is of a linear, chronological, and successive nature.⁽²⁾ Time to accomplish progressive tasks is classified as the most valuable category of time. Climate change and the increase in water salinity impose additional pressure on women who spend more time either waiting for usable water to be pumped from tanks, which often happens without a specific time, or waiting for the water tanks that sells usable water to families.

«Life's daily tasks have increased. They have become extra burdens. In addition to frequent washing, we have to wait for the water truck. It is always late for us, and we need water to complete the household chores, so we call him and keep waiting. We lose money and time, time spent waiting.»⁽³⁾

(2) Izz, Lazy 2022. *Time Waits for No Woman: How Time Is Gendered*. February 2022.

(3) Interview, single woman, master's degree student, Jubaila, 25 years old, works in a private company, 112022/10/.

As the burden of care multiplies for women in Basra, the time required to complete household chores also multiplies. They are forced to spend more time completing household chores. The daily routine of washing dishes takes women twice as much time, because it is now in stages. A small amount of water is used at first. Potable water is mixed with detergent powder, because salt water prevents the detergent's effectiveness. After washing the dishes with the powder, they are rinsed with salt water, then again rinsed well with potable water. However, if the water is salty and also contaminated, the women boil the water and pour it on the dishes as a final step for sterilization.

According to a woman interviewee, *«[no] housework is complete from the first time. We have to wash everything twice, which means work upon work and twice the work is exhausting.»*⁽¹⁾ The same process is followed when washing vegetables and fruits. Women repeat the washing and rinsing process to get rid of the salts deposited on the

(1) Interview, woman, married, Bachelor's degree in Computer Engineering, al - jazair al - Abbasiya, 72 years old, housewife. 102022/10/.

food and dishes. Every day, women are forced to monitor the use of water by household members when bathing, especially for children. After washing with salt water, women provide potable water to wash away the remaining salts from the children's bodies. Women use their sense of taste to ensure that salt does not deposit on the child's skin, as it would lead to skin diseases, *«when I bathe my son, I use salty water, and then I pour fresh water. Many times I feel anxious because I am not sure that this water is fresh, so I taste my son's skin. If I do not feel the salty taste, I dry it, but if it is salty, I spray water on it again. Keeping salt on the child's skin will lead to infections and skin diseases, and this has happened before.»*⁽²⁾ as confirmed by 70 percent of interviews with women and men.

«If the salty water arrives, we do nothing. We do not drink it or wash ourselves, because it is salty and cannot be put on the body. However, many times we are forced to wash with it and we have no choice. Then we rinse with usable water.»⁽³⁾

(2) Interview, woman, married, Women teachers' institute, Karma, 38, teacher. 202022/10/.

(3) Interview, woman, married, primary school

In recent decades, technological progress has contributed to the development of home appliances automating household chores that were previously done manually. This helped women complete household chores in less time. As a result, women benefited from the available time by going out to paid work, participating in public activities, and obtaining free time. But for women in Basra, the rise in water salinity has taken time back from them. Most, especially those with limited income in rural areas most affected by water salinity, do not use electric washing machines, since they cannot provide them with usable water. Thus, women are forced to accomplish this task in the traditional way, i.e. washing by hand, which consumes additional effort and time. This was confirmed by one of the interviewees:

«We do not use potable water unless necessary. We wash everything with salt water and then rinse with potable water. Even clothes are damaged due to the use of salt water. I do not use an automatic washing machine. I cannot install pipes to pump usable water,

student, Abi Al - Khasib, 42 years old, housewife, 222022/10/.

because these are additional costs, so I wash the clothes by hand.»⁽¹⁾

Washing and cleaning water tanks from the accumulated salt is an additional task for Basra's women. The task is carried out by women heads of families. In families headed by men, they are the ones who undertake this task.

The Economic Cost of Climate Change

«We buy everything.» It means that we now buy all our needs from the market. This is how all the interviewed men and women from al - Ahwar marshes and surrounding rural areas answered the question: «How do you describe your situation at the present time?» Historically, the most prominent feature of the marshes' economies was the their population's ability of to be self - sufficient and to rely on the resources provided by the natural environment. With the exception of tea, sugar, and coffee, al - Ahwar's residents depend on what nature provides to secure their food and other subsistence needs (materials for building houses and boats, animal fodder).

(1)Interview, woman, married, Women's Teachers' Institute, al - Karma, 38 years old, teacher, 202022/10/.

Most economic sectors in various countries are affected by climate change. However, climate change may have significant and devastating repercussions on the economies of poor and developing countries. Economic shocks resulting from the effects of climate change can multiply very quickly, especially among the poorest and most vulnerable population groups. Loss of livelihoods and food insecurity may increase significantly. Thus, measures to adapt to climate change have become more expensive. They need to meet the need for food and water supplies and address health impacts and diseases varies, including the ability of households to mobilize economic resources to address environmental degradation in daily life, which is characterized by many challenges.

Economic losses and damages due to climate change are most evident in the agricultural sectors. The lack of high - quality water for human use and agricultural production has become one of the most critical problems facing the residents of Basra Governorate, due to the rise in water salinity year after year and the decreasing supplies of safe water provided by the government. Interviews

confirmed that all Basra families incur direct economic costs to treat water salinity and pollution. The first of these burdens is purchasing water suitable for human use, as the people of Basra call it (fresh water or RO). Official statistics indicate that although 93.9 percent of the population are connected to the public water network, 99.2 percent buy bottled water for drinking and cooking.⁽¹⁾ Water from tanks is used for cleaning, bathing, and washing clothes. The price of one ton ranges between 10 - 20 thousand Iraqi dinars (USD8 to 15) and varies depending on water quality. These amounts were originally spent on other necessities. Most families spend extra on purchasing desalination units and water - purifying filters, which impacts limited - income families, in particular:

«Everyone is affected by drought and salinity and certainly the situation of women. First, economically, because many families used to buy water every week or ten days. Currently, as the government decrease the supply of safe water, families have begun to buy fresh water tanks every three days. We have to wash everything

(1)Taher, Ali. 2019. *Behind Events in Basra: Problems and Possible Solutions*. [In Arabic] Friedrich Ebert Stiftung - Amman Office.

again with safe water, because the salinity and possible toxicity that affects our health without us realizing it. For example, if we eat food like vegetables and fruits and they taste salty, they may be contaminated, so we need more fresh water. All of this all affects the household economy, and the mother is the first person to feel it because she is responsible for securing all the family's needs. Spending on buying fresh water will certainly affect the provision of necessities, such as visiting a doctor if a family member needs that, or buying good food or clothes for the children, and other things.»⁽¹⁾

Overall, women do not have the space to make decisions or control the household's economic resources. Men take most of the daily decisions related to household expenses. Since they are not responsible for household chores, they neglect to allocate the amounts needed to provide enough safe water for the household's daily needs. Due to the high price of a ton of fresh water, women are forced to ration its use while performing daily household tasks, which increases the chores' burden. According to the interviews, women do

(1) Interview, woman, married, Master's degree in translation, 38 years old, works in an international organization. 212022/10/.

not use automatic washing machines if they are not connected to the fresh water pipes, since the accumulation of salts in washing machine pipes leads to their malfunction. Washing clothes with salt water leads to color fading and damage:

«Repeatedly washing clothes with salt water leads to damage, especially since our clothes as women are mostly black, so they appear dull. I also do not use the automatic washing machine because I cannot install new pipes to supply it with fresh water. This is difficult because it is an additional cost. I handwash clothes daily.»⁽²⁾

The water's salinity exposes the water pipe and tank network to rust and corrosion. Water filters do not last long and are exposed to severe damage due to the high level of salts. They must be replaced periodically. However, not all families can buy high - quality products. They are forced to buy low - quality products, which leads to an increase in the number of times they are replaced and also higher costs and expenses incurred by residents in urban and rural areas.

«During a single year, we replaced

(2) Interview, woman, married, Bachelor's degree in Computer Engineering, al - jazair al - Abbasiya, 72 years old, housewife. 102022/10/.

the water taps more than four times. We bought a regular quality faucet for 16,000 dinars (USD12.23) and it corroded. After two months, we replaced it a second time then a third. The most recent price was fifty thousand dinars (\$38.23), and it seems that it is on its way to corrosion as well.»⁽¹⁾

Families in Basra spend significant amounts of their monthly income to purchase cleaning materials, soap, and shampoo, because they are less soluble in salt water, which reduces their effectiveness and ability to remove dirt, microbes, and viruses when washing hands, bathing, and dishwashing. Families buy additional quantities, an extra burden for limited - income families. According to the interviews, families spend large sums of money on sterilizers and medicines to treat diseases resulting from the use of salty and polluted water: *«Salt and polluted water means we are constantly buying sterilizers and medicines, especially since children get sick quickly if they happen to drink water from the tap. Poisoning and skin diseases are prevalent. Because children are sensitive to these things.»⁽²⁾*

(1) Interview, woman, married, 59 years old, no education, living in a Basra city slum, 142022/10/.

(2) Interview, woman, Al-Qurna district, 43 years old, primary education.

The situation becomes more difficult for rural women, as transportation fees are added to the health costs of treating diseases caused by pollution and climate change, due to the lack of health institutions in areas far from the city:

«The burdens have become greater, especially since we are not always able to provide usable water. This means we spend 6,000 dinars daily. One time, my son got sick because he drank salty water and was poisoned. Frankly, we always find it difficult to treat diseases because of the costs. It means we have to pay 25,000 dinars to the doctor, then we buy medicine for 75,000 dinars and taxi fares. The round trip is about 20,000 dinars because we live in Abu Al - Khasib in the Hamdan area, which is far from the city center, and we cannot afford all of these costs.»⁽³⁾

Climate Change: Diseases and Health and Psychological Problems

As the impacts of climate change become more apparent, communities around the world are grappling with economic and non - economic losses and damages. While economic impacts

(3) Interview, woman, married, primary school graduate, Abu Al - Khasib, 48 years old, housewife, 132022/10/.

often receive attention through policy and programming, non - economic consequences remain largely invisible and unaddressed, especially in financing climate change programs. Non - economic damages and losses caused by climate change associated with public health are profound and impactful. They entail an increase in respiratory and cardiovascular diseases, injuries and premature deaths associated with extreme weather events, and changes in patterns of infectious diseases. Health problems extend beyond physical effects to include stress and trauma. Psychological symptoms appear directly and indirectly in the long term. Women are disproportionately affected by climate change and have significant impacts on physical and mental health.

The population of Basra Governorate faces threats to public health, and many diseases are spreading due to climate change factors such as high temperature and drought, leading to high water salinity and the poisoning of the air and soil as a result of carbon emissions resulting from burning fossil fuels in oil fields. Gaseous carbon compounds are inhaled through the lung and absorbed by the skin, leading to cancerous diseases.

One of the interviewees, who lives in an area close to fossil gas burning pipelines, confirmed that they are accustomed to feeling air pollution, and that they do not even care much about the indirect effects of pollution. However, she sees this air pollution and deals with it daily, according to what she said when washing clothes:

«None of the women in the region hang clothes outside to dry on the roof of the house or in the garden, because they will turn black and become contaminated due to the remnants of black smoke and soot that accompanies the burning of gas and spreads in the atmosphere. We hang the clothes inside the house.»⁽¹⁾

The incidence of cancerous diseases is increasing to an alarming level in Basra, which leads other governorates in the number of infections of all types of cancer patients. The Ministry of Health has recorded statistics documenting Basra's lead in the number of cancerous diseases. They indicate that, in 2020, monthly infections rose to between 600 - 700, compared to 2015 - 2017 when they ranged between 400 and 500 cases.⁽²⁾

(1) Interview, married woman, middle school graduate, Nahran, 35, housewife, 132022/10/.

(2) Al - Rafidain News. 2023. "Oil emissions threaten the lives of Iraqis in Basra."

Cancer rates among women in Basra is higher than that of men. From 2001 to 2020, about 3,223 female cancer cases were recorded, or 58.2%, compared to the number of men's cases (2,318 - 41.8 percent). This increase is due to breast and uterine cancer among women.⁽¹⁾

According to a statement by the UN Special Rapporteur on Human Rights and the Environment, residents in areas close to oil fields are victims of collusion between the Iraqi government and oil companies. Moreover, the government is keen to hide studies and statistics that confirm the presence of diseases, whether cancerous or other diseases related to pollution.⁽²⁾ All the interviews confirmed that Basra's population is constantly exposed to various diseases as a result of environmental pollution. According to one of the interviewees,

Observers: The Government Is Responsible for the Cancer Outbreak." [In Arabic]/ الانبعاثات - النفطية - تهدد - حياة - العراقي [Accessed on 23/2023/12/]; see also Taher, Ali, 2019, op. cit.

(1) Al - Hassan, Choukri. 2022. "Challenges of environmental pollution and its impact on women in Basra Governorate." [In Arabic]. Al - Firdaus Iraqi Association. Unpublished survey.

(2) Jess Kelly, Owen Pinnell & Esme Stallard, BBC News. October 2022. "BP in oil field where 'cancer is rife'." [In Arabic]

residents of areas close to oil fields suffer from harmful health effects resulting from burning gas emissions every day. This coincides with the decline in existing healthcare and the lack of preventive measures:

«The people of the countryside are affected the most. As you know, women in the countryside wash dishes and clothes in the river, and even children swim in it. The river is polluted, and all of this causes diseases, such as skin diseases, which are widespread. There is also pollution in areas on the edge of the city, such as Rumaila and Khor Zubair, meaning areas with environmental pollution. Because of the oil companies, the rising smoke leads to cancer for a large group of children who live with their families there. I notice that the government has opened a special hospital for cancer diseases. This confirms from my point of view that pollution in Basra causes cancer and there are large numbers, therefore the need for a new hospital.»⁽³⁾

The interviews showed the spread of respiratory and skin diseases among adults and children. According to one of the interviewees, there is no way in

(3) Interview, man, married, bachelor's degree, Shatt al - Arab - Tanumah, 45 years old, primary school assistant, 15/2022/10/.

which people alone can deal with the air pollution that spreads throughout Basra Governorate, and which is clearly higher in areas close to oil wells. People go about their daily lives breathing these toxic fumes, which are the main cause of cancerous diseases in the long term, as illustrated by one the women respondents:

«Because of my work in an international organization, I was forced to visit the areas near oil rights wells. I can see (the flame) filling the sky with black smoke. The smell was ugly, I could not breathe or open my eyes due to the intensity of the smoke. My tears began to flow and my eyes turned red. Although people have adapted to this black smoke, they suffer from cancer and respiratory diseases, and most of them suffer from allergies. You can tell this by looking at their hands. Children always suffer from eczema. Families visit the doctor periodically. In addition to breathing polluted air, they use salt water in bathing, so children get sick quickly. Their skin is very sensitive.»⁽¹⁾*

The negative impact of climate

(1) Interview form 1, 102022/8/, single woman, diploma, respondent's home, lives with her family, 38, works as a civil society organization.

change on women's health is different and greater compared to what men face. Women have a higher need for water for hygiene during menstruation, pregnancy, and breastfeeding. Women are more fragile during pregnancy, and the immune system is affected when hormonal changes occur. They become more vulnerable to infectious and transmitted diseases. According to statistics, among the top five causes of death for women around the world is their inability to access sanitation services and clean water, which leads to an increased risk of urinary tract and other bacterial infections, and diarrheal diseases. Furthermore, the misuse of antibiotics increases the risk of antimicrobial resistance in women.⁽²⁾ According to 80 percent of the interviewees, large numbers of women are exposed to breast and uterine cancer, whose risk is multiplied by the difficulty and inability to access health services by women, which exacerbates their health condition. In many cases, the disease is discovered in the late stages, according to one of

(2) Sunderji, Natasha and Ragini Ahluwalia, Latika Khurana Opinion 2023: Addressing the toll of climate change on women's health.

the interviewees. This is not only due to water and air pollution in Basra, but also to the remnants of the war between Iraq and Iran 1980 - 1988:

«I have some information about air pollution in several areas such as Al - Zubair, Safan, and Al - Faw. These areas, where wars took place, were exposed to radiation. They have high rates, with direct effects on the residents of these areas, especially on women, who are most affected by these pollutants. We see many cases of cancer among women, for example, breast, uterine cancer, and other types of cancer, which can affect reproduction and lead to infertility and other things.»⁽¹⁾

One of the male interviewees mentioned that rising water salinity due to reduced water flow from Turkey and Iran coincides with the government's negligence in dumping heavy sewage waste into the rivers and Shatt al - Arab, the main cause of water pollution in Basra. Even when the water is filtered, traces of that waste remain, including bacteria and viruses such as salmonella, causing diarrhea and chronic intestinal colic.⁽²⁾ Many interviews confirmed

(1) Interview, man, married, bachelor's degree, café, 30 years old, private sector, 28/2022/10/.

(2) Interview, single woman, bachelor's degree,

that women, especially in rural and slum areas, suffer from gynecological infections. What is strange is that these diseases affect even elderly women and young girls: *«My mother is sixty - seven years old, and she has been suffering from gynecological infections for twenty years. We have been trying to treat her, but to no avail,»* said a respondent.⁽³⁾ One of the interviewees explained that her fifteen - year - old daughter suffers from gynecological infections, and all the mother did was advise her daughter to boil the underwear and sterilize them by hanging them in the sunlight.⁽⁴⁾ Most women in poor families do not have the economic capacity to treat gynecological diseases that occur due to the water's salinity and pollution. Moreover, social norms consider gynecological diseases a sensitive topic, which should not be talked about openly, even in front of members of the same family. This girl's mother is an example. She does not know what her daughter is suffering

respondent's home in Abi Al - Khasib, 25 years old, teacher, 15/2022/10/.

(3) Interview, unmarried woman in her fifties, Shatt al - Arab, November 25, Basra, 18/2022/10/.

(4) Interview, married woman in her fifties, primary school, Abu Al - Khasib, Basra, 18/2022/10/.

from. And the women continue to suffer in silence.

Cultural and social considerations impose certain requirements related to the external appearance of women's bodies. Hair has a special symbolism because it is always linked to women's sexuality. The length and abundance of hair is one of the standards of beauty that women must comply with, and it is one of the basic features of the cultural distinction between women and men. Men do not face as much psychological pressure as women with hair loss or baldness. On the contrary, cultural standards require men to cut their hair, and in case of violation, they face societal punishments and accusations of imitating women. It was said in most of the interviews (men and women) that water salinity and pollution affect the health of women's skin and hair, as most of them suffer from continuous hair loss, which constitutes great and continuous psychological pressure on women and girls. Skin diseases also spread. Using salt water throughout the day in household chores causes dry skin and exposure to infections and diseases such as eczema and psoriasis:

«Frankly, we face great difficulty dealing

with salt water. We suffer from dry skin and hair loss. Most women in Basra suffer from hair loss, so I make sure to wash my hair with fresh water. I try my best so my hair is not exposed to salt water. You know, a woman's hair is the foundation of her beauty, and people are vicious. Also, because of the salinity and pollution of the water, my husband's mother developed psoriasis all over her body. Despite receiving treatment for many months, she has not improved. She is in pain at night and day!»⁽¹⁾

Women's vulnerability to air and water pollution is exacerbated at all levels of health and psychology. By virtue of their caring roles, they are directly responsible for taking care of the health and well - being of family members. Interviews showed it is women who undertake the task of caring for any member of the family exposed to illness due to pollution, leading to more physical and psychological pressures. Because these diseases occur continuously, stress and feelings of tension and anxiety affect most women who are mothers, especially women who are breadwinners for their families:

(1) Interview form, woman, married, elementary school, Shatt al - Arab, 36 years old, housewife, 202022/10/.

«People go to hospitals in Basra because of strange and unusual diseases. Mothers are responsible for taking care of patients. Usually, they are the ones who ensure their comfort and stay in the hospital. Their situation is certainly very difficult. They will always be tired and stressed and have no time to rest. They cannot even watch television. Sometimes women breadwinners are in a much more difficult situation. As you know, we have many martyrs due to wars. Women are responsible for meeting all of their family needs without any help. Their psychological state is affected, so you always see worried women. They are in their thirties, but look older and their hair is full of grey. In my opinion, drought and desertification affect women directly. Some of them do not see any sight of beauty or elegance. There are no green areas. The outside environment is a barren desert, the trees are cut down and withered, and the grass is yellow. There is nothing to relieve the psychological pressure they bear.»⁽¹⁾

All studies agree that exposure to extreme heat and high humidity not only causes discomfort, but may also entail

(1) 102022/21/, woman, married, Master's degree in translation, Shanshal Mall, 38, works at the World Food Programme.

severe health risks.⁽²⁾ Therefore, the population of hot areas face potential risks that threaten their health if they do not follow some preventive measures. High temperatures have a particular effect on women, amplified by the type and nature of the clothes they wear. Religious and cultural norms require women in Basra to wear modest clothing that cover the entire body. Despite the extreme high temperatures and high humidity, when women leave the house, they must wear layers of clothes to hide the details of the body, which increases their exposure to heat.⁽³⁾ «We have difficult days in the summer, especially in July and August. I cannot bear to go out during the day. I cannot bear the heat while wearing the hijab and the abaya. I prefer to stay at home,» explains one woman respondent.⁽⁴⁾ Social pressure is not limited to thick clothes, but also the choice of fabric color. While it is preferable to wear light, breathable colors, when temperatures rise, women in Basra, especially in

(2) World Health Organization (WHO). 2023. "Climate Change." [In Arabic]

(3) Al - Mashat, Zainab. 2023. "Short Sleeves: Clothes Do not Indicate Women's Morals in the Summer." [In Arabic] Jummar website.

(4) Interview, woman, widow, primary education, sells dairy products, 38 years old, Shatt al - Arab.

rural areas, are prohibited from wearing light colors in the public sphere. Most women's clothing tends to be dark to avoid attracting the attention of men and being exposed to harassment.⁽¹⁾ For women who wear the head abaya and what is known as the Islamic abaya, the color is exclusively black. It is known that dark colors generate heat energy that doubles if there are layers of clothing that prevent the elimination of sweat and ventilate the body. Also, the head abayas and Islamic abayas are made of synthetic fibers, which do not allow the body to breathe and heat to escape.

(1)Al - Mashat, Zainab. 2023. "Short Sleeves: Clothes Do not Indicate Women's Morals in the Summer." [In Arabic] Jummar website.

Case Study 1: Ongoing Battle with Cancer and Nowhere to Go: Umm Ali's struggle

Umm Ali described what she felt as the car she was traveling in approached the Nahran Omar⁽¹⁾ area on her way home after completing her visit to the city of Karbala:

«Suddenly, the color of the sky changed from blue to dark grey, and the air became heavier. I felt it as my breath got heavier. I felt tired and exhausted. As I looked at the trees and houses surrounded by gray smoke and soot on all sides, my vision became less clear and the colors faded.»

Umm Ali, 53 years old, works as a teacher in a school near her home. Her teaching work does not end when school ends. This is how she described her situation before she contracted cancer:

«I was a very active person. I hardly felt tired. Even when my work at school was over, I would encourage the students to come to my house and would continue teaching them. Then I would do housework and take care of my children and my husband. However, it all changed after I was diagnosed with cancer. I currently find it difficult to move. I depend on my children's help go to the bathroom and eat.»

Umm Ali lives in the areas most affected by the burning of gas associated with oil extraction (flares), which has caused countless health problems for the region's population. Asthma, lung, and skin diseases are widespread, and the most fatal to human life is cancer. Umm Ali thinks she knows when she got cancer:

«Years ago, we woke up in the morning to find a sticky black substance that had flooded the entire area during the night and even entered our homes. The floor and walls had become black. We spent long hours cleaning the house. We then learned that there had been an explosion in one of the oil pipelines inside the field, which led to a black substance leaking. During the night, the entire area was flooded. We did not hear any warning from any party, and the company responsible for extracting the oil only cleaned the areas surrounding the field. I have a feeling that this sticky substance that entered my house gave me cancer.»

Umm Ali does not have information whether women are more affected than men, as all residents of the region, men and women, of all ages, are afflicted with cancer. However, when Umm Ali tried to count the number of people currently with cancer or who died as a result of infection out of her neighbors or relatives, the names she mentioned were all of women. Umm Ali said:

«There are so many cases of cancer that it is difficult to count them. For example, there are 12 women from 6 homes who died from cancer. They live near us, all of them our neighbors.»

Umm Ali underwent chemotherapy sessions. Her journey to fight the disease was difficult and painful to the point that she refused to receive chemotherapy for the last two sessions, but the doctor's encouragement and the support of her children helped her complete the treatment. She feels relatively better now, and hopes that this will be her last battle with cancer to return to her normal life. However, how can she do that as the flames continue to ignite in her area? Her face, which has been ravaged by cancer, asks: «What can we do and where to go?»

(1) It is an area located near the Nahran Omar oil field in the Deir district. See: Al - Sumaria News. 2015. "Protests continue near the Nahran Omar oil field in Basra, and the provincial council promises solutions." [In Arabic]

Rural Women and Climate Change: Multiplied Economic Burdens and Fragility

According to Ministry of Planning 2021 statistics, rural women make up 16 percent of Iraq's total population and around 30 percent of the total number of women. However, rural women face various forms of discrimination and deprivation of rights, as the illiteracy rate among them reaches 27.3 percent and only 1.8 percent are able to complete their studies to advanced levels. Women in the countryside carry out most of the work, and they are not limited to housework and childcare as is the case with women in the city. Rural life **work** such such as caring for crops and raising animals are added to their tasks, which occupy most of their time and consume their energy. Nonetheless, this work is not recognized or paid. Only 8.6 percent of women are economically active. Moreover, the comprehensive analysis of food security and fragility of Iraqi families for 2026 identified 7.6 percent of families headed by women.⁽¹⁾

(1)Mawazin News. 2021. "Rural Women in Iraq in the Past Decade." [In Arabic] Available at: <https://www.mawazin.net/Details.aspx?jimore=202657> [Accessed on

Rural women in Basra face greater challenges compared to women in the city due to climate change, such as high temperatures, water salinity, and air and soil pollution resulting from the burning of gas associated with oil extraction, according to one of the interviewees:

«The impact for us city residents is different from rural residents. We can buy fresh water or install filters, but the rural population depends mainly on the rivers, the level of salinity in which has risen to a very high degree.»⁽²⁾

In many areas of Basra, women still fetch water by traditional methods, carrying it from long distances, due to the lack of government water supply networks. Social norms impose the task of providing/carrying water primarily on women. It is not appropriate for a man to carry water in the street or outside the home.

With the increase in salinity, the task of providing usable water was no longer limited to domestic use, but also

222023/12/]. Also see Central Statistical Organization - Department of Human Development Statistics. 2019. *Rural Women in Iraq*. [In Arabic]

(2)Interview, woman, married, 37 years old, Bachelor's degree in Education, teacher, Basra 102022/12/.

for animals and crops. Thus, women's burdens in the countryside multiplied greatly:

«We suffer from salinity. The water has become very salty. We are harmed, because we care for animals, and these animals cannot drink salt water, just as it is not possible to water a plant with salt water. We used to depend on river water. Previously, the water was fresh. We washed clothes and dishes and watered the crops and animals, because the government's water flow does not reach our areas. We have to walk to the main street where they have working water pumps. We fill from it. Now we buy water from the tank. Half a ton of fresh water costs 6,000 Iraqi dinars (USD4.5), and it is only enough for one week.»⁽¹⁾

Most women in rural areas in Basra or other governorates still use traditional methods of agriculture or animal husbandry. Rural populations usually do not have regular barns to house livestock and do not adopt healthy methods for disposing of animal waste. Due to the fragile economic situation of most of the rural population and to reduce the costs of purchasing clean fuel (cooking

(1) Interview, woman, married, primary school graduate, Abu Al - Khasib, 48 years old, housewife, 142022/10/.

gas), women use cow and buffalo dung as fuel for baking bread and cooking. This process emits methane gas, which is 21 times more dangerous than carbon dioxide and the main greenhouse gas causing climate change.⁽²⁾ In most cases, women prepare cow and buffalo dung tablets without following health precautions. One woman's answer to the question of whether she follows any procedure that protects her from direct and daily exposure to buffalo dung was: *«Sometimes I cover my nose and part of my face with a shawl, but I do not always wear gloves, we don't usually use them.»⁽³⁾* The second option for rural women to make bread in a clay oven is to use wood. Men do not show interest in providing cooking gas, because cooking and providing fuel is women's work. This means that women are exposed on to the resulting carbon materials on a daily basis. Because of burning wood, the chances of rural women being exposed to respiratory diseases and cancer are high.

Historically, women in rural Basra

(2) Iraqi Natural History Research Center and Museum. 2014. "Livestock farming and global warming." [In Arabic]

(3) Interview, woman, 44 years old, married, primary education, 102022/12/.

practice various economic activities such as agriculture, animal and poultry raising, food production such as dairy, and fishing. Thus, they contribute to providing economic support for their families. Sometimes, women's economic activities are the only source of family income. However, drought and water salinity led to rural women losing these opportunities, and they began to bear additional economic hardships. Some were forced to look for work outside their areas to secure food for their children. Naturally, due to their poor education and skills necessary for decent work, the only jobs available to women are in garbage dumps or loading. Others resort to begging. These actions expose rural women to greater risks and added vulnerability.⁽¹⁾

According to interviews, most poor families in rural areas have left agriculture due to the high level of water salinity. Women cannot deal with these problems, especially breadwinners, because the only solution is to provide usable water and this requires large sums of money. Some families with

(1) Interview, woman, married, primary school graduate, Abu Al - Khasib, 48 years old, housewife, agricultural property, 142022/10/.

good economic standing maintained their farms by providing fresh water. However, poor farming families saw their lands become barren, as illustrated by one of the interviewees:

«The Abu Al - Khasib area was a beautiful area, after its name [the plentiful], which points to fertility. It was densely cultivated, but now, with the rise of the salt tongue, poor families left their lands and the agricultural profession, and began to move to the north of Basra with their remaining animals, following the fresh water. They want to give their animals fresh water to drink so that they do not die and lose everything.»⁽²⁾

The migration of families from the countryside to the city of Basra in the context of climate change does not only affect women in the loss of a source of economic income that helps secure their basic needs. It also leads to a loss of relative space for movement, as migrant families live in poor slums spread throughout the city. Basra comes after Baghdad in terms of the number of random settlements,

(2) Interview, man, married, bachelor's degree, Shatt al - Arab - Tanumah, 45 years old, school assistant, homeowner. 152022/10/.

which reached 677 in 2017, with 62,602 random homes, i.e. 12 percent of housing in Basra.⁽¹⁾ These homes are known to be small, lacking the most basic elements of adequate housing in terms of the nature of the building. Women become confined to narrow walls and deprived of the wide spaces of their original areas.

Additionally, these areas and slums suffer from the lack of infrastructure, water and electricity, and sewage services. According to the report of the Central Bureau of Statistics, the population in Basra served by public and shared sewage networks in 2017 is only about 34.1 percent of the total population.⁽²⁾ Families are forced to adopting alternative primitive methods to dispose of heavy sewage water by digging holes inside their homes and then using a pump to drain the heavy water and throwing it on the city streets. Consequently, the rate of pollution and the spread of viruses and bacteria in the soil and air in those neighborhoods

and the whole city start rising, adding to women and girls' exposure to various contagious and non - contagious diseases, under the additional burden of displacement.

The absence of economic opportunities for women in the city makes them more dependent on men, who already find it difficult to provide for the family's needs. Most of them are forced to work in low - wage jobs in informal sectors that lack job security and insurance, and are thus exposed to exploitation and expulsion, to the detriment of their family situation. Thus, problems and domestic violence increase, as one of the interviewees confirmed:

«These problems had an impact on society as a whole, regardless of the sex. Everyone is exposed to diseases and forced eviction, and these are difficult problems to solve, for Basra, because of pollution and climate changes. Heads of families are exposed to forced expulsion or injury at work, and suddenly becoming without income. Here, women are exposed to violence, persecution, family problems, and other social problems due to migration from the countryside to the city. These people come carrying

(1)Ministry of Planning, Central Statistical Organization. 2018. *National Development Plan 2018 - 2022*. [In Arabic]

(2)Ministry of Planning, Central Statistical Organization. 2018. "Basra Statistical Brief 2018." [In Arabic]

their tribal ideas and traditions, and this is directly reflected on women, so harassment, domestic violence, and marginalization increase.»⁽¹⁾

(1) Interview, man, single, Bachelor of Law, 29 years old, lawyer, rent, 122022/10/.

Case Study 2: Making a Living Changed Due to Drought and It Became Much Harder as I Grew Older: Umm Saad's Struggle

Umm Asaad, 64 years old, a woman who lives in the Qurna district, says:

«The situation was completely different. Everything was different. The water surrounded us from all sides. It was fresh and we drank from it directly. It was not this salty.»

Our meeting with Umm Asaad was in a public place near her house, which she turned into a small garden and planted three palm trees and a few tomato seedlings. She adds:

«After I grew up and my children got married, I had nothing to keep me busy. I wanted to keep myself busy, so I planted those palm trees and tomato seedlings. It is true that there is water near the river, but it is salty, so I water my plants with fresh water. I use water hoses to transfer it from the main pipe in the street to the plants. I don't want the palm trees to die because of the salt water.»

Laughing, she mentioned an incident that happened when she was 14. It showed what the environmental nature of al - Ahwar marshes was like:

«I used to go out with my father to let the buffalo graze in the marshes. We used boats to move around, the water was covering large areas of land, and the buffalo were frolicking in the water. One time I saw a group of fish trapped between sedge branches. I agreed with my father that we should catch those fish together before we left and someone else sees them, because we used to go to the marshes with our relatives. Indeed, my father and I were able to catch all those fish. We returned home with three large baskets full of fish. It was an effort to get them home. Now, can you believe that when we want to eat fish, we have to buy it from the market!»

Since her childhood, Umm Asaad has been working in all of the family's economic activities, whether farming, herding animals, cutting reeds and papyrus plants to serve as fodder for animals, manufacturing dairy products, and selling them to people. All that coincided with the tasks of caring for family members inside the home.

Umm Saad described her life and her role in her family's home and after that her husband's home. She married when she was 16 years young and gave birth to eight children. However, her husband married a second woman, and this is when the disputes began:

«Suddenly and without warning, my husband married a second woman. Our economic situation was bad. We could barely provide the children with three meals a day. His work was irregular, and I was trying to meet the needs of my children by raising animals and manufacturing dairy. This happened at the beginning of the nineties with the economic blockade. I could not bear this situation and the problems between me, my husband, and his new wife. One day, a quarrel broke out between me and my husband and he started hitting me with a big stick. I could not take it. I could no longer stand this situation, and I asked myself why I should stay when, in any case, I was the one taking care of the children and providing them with food. I grabbed his hand and asked him to stop. I was physically stronger than him because I am a peasant woman, and I threatened that I would hit him. I shouted at my children to gather their things because we were leaving the house. Frankly, I did not expect my children to leave their father, but they all left the house and joined me. Since that time, I have been living with my children.»

Umm Asaad lost the means of livelihood that helped her in her husband's house, the land, and the animals, and she started her life with her children from scratch. She worked as a wage laborer on farms and weaving carpets and baskets from papyrus and selling them in the market. Umm Asaad says:

«I relied on myself to support my family. I had nothing. Although I inherited agricultural land, my uncle seized it because my father did not have a son. My uncle deprived us of the inheritance for me and my daughters. My uncle seized the land before my father died. I have my fingerprints on every inch we used to farm on this land. However, unfortunately, here, there is no rule of law, but of customs.»

Umm Asaad currently lives with the family of her middle son, who works at a private company. She describes herself as a 'non - working' woman despite all the daily tasks she performs. She is still the one who bakes bread, cooks, and takes care of her grandchildren, especially her 6 - year - old granddaughter who has skin cancer.

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