

Research Report

Water Crisis in Northwest Syria

July 2023



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Summary

The purpose of this study is to examine the water situation in northwestern Syria and the difficulties that the region encounters in terms of water access, the issues that families have in get clean, drinkable water and using it in adequate amounts that satisfy their needs, and the actions of actors, institutions and organizations involved in this sector.

The report used both quantitative and qualitative methods in the study by using a questionnaire from a sample of families in various areas with different characteristics and water sources in northwestern Syria in Aleppo and Idlib, as well as conducting interviews with water unit managers, local council members, and water projects officials working in organizations that operate in this sector.

The report found that the water supply to families in the northwestern regions of Syria is inconsistent, and most of these families face water scarcity and unavailability at times. Moreover, some families rely on children under 15 years old to fetch water for the household, and some depend on women to do so.

The report also found that families incur extra expenses in getting water from various sources during the outage period. Furthermore, some families receive unchlorinated water from the organizations working in the area.

The report also found that the main cause of the water crisis in northwest Syria is the lack of support for water projects, followed by the increase in population density due to displacement and the high costs of obtaining water, and then the issue of water pollution. Moreover, the response in northwest Syria in the water sector projects by non-governmental organizations is limited, as they account for only 14%, according to the views of the study participants.

The main recommendations drawn from the report are the need to implement quality projects by relevant and active parties in this field, with a focus on expanding water networks, maintenance and rehabilitation projects for inactive networks, and restoring sewage networks and conducting regular maintenance for them. We also emphasize that the response in this sector should be on a wider scale, conducting surveys of the areas, carrying out the necessary studies, and implementing needs assessment studies to identify areas that suffer from frequent water supply interruptions, find suitable solutions for them, and ensure the quality and safety of the water.

In addition, there is a need to enhance child and women protection programs in northwest Syria, and awareness programs for child labor and avoiding depending on them and women to fetch water, and paying attention to interventions that increase the family's monthly income and help reduce the burdens of the family's daily expenses and extra costs in providing water.

Introduction

The population in northwest Syria is estimated at 4.5 million people, of whom 2.9 million people are internally displaced people, and 2 million people live in camps¹.

With this this population in this geographical area, the humanitarian situation in northwest Syria remains critical, as June saw an escalation in hostilities. On June 25, there were also worries about food cuts and the World Food Program's announcement about food ration reductions, as it is estimated that about 3.3 million people face food insecurity, according to the Humanitarian Needs Overview for 2023².

On the other hand, the region is experiencing a severe heat wave that threatens lives, as more than 40 fires were reported only between July 15 and 17.

In this context, we had to address the water crisis that northwest Syria is facing, and highlight the situation of water security and the problems and challenges that families in the region encounter in accessing it.

According to the Food and Agriculture Organization of the United Nations (FAO), water security means “the capacity to ensure a sustainable supply of safe, clean water adequate to meet the needs of all social and economic sectors in all climatic conditions”. Therefore, water security impacts the health, safety, well-being and development of populations, as well as the stability and sovereignty of states.

The report will try to answer the following questions:

- How did climate change affect the situation of water security in northwest Syria?
- What is the effect of increasing population density in northwest Syria on causing a water crisis?
- What is the quality of the water and how has the water crisis been influenced by the issue of pollution in northwest Syria?
- What is the impact of the lack of strategies and governance plans regulating water extraction and supply on the water crisis in northwest Syria?

¹ <https://reports.unocha.org/ar/country/syria/>

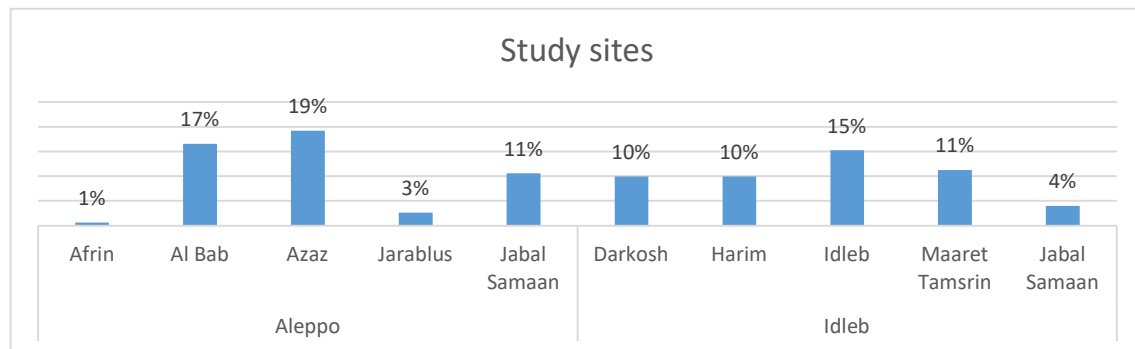
² <https://reports.unocha.org/ar/country/syria/>

Methodology

Mixed methodology (quantitative and qualitative) was used in the data collection process, whereby a questionnaire consisting of 76 questions was employed to obtain a suitable quantitative statistical analysis, as well as to conduct qualitative research interviews with water and sanitation officials working for non-governmental agencies and organizations, and water unit managers operating in the study areas, in addition to interviews with representatives of a local community.

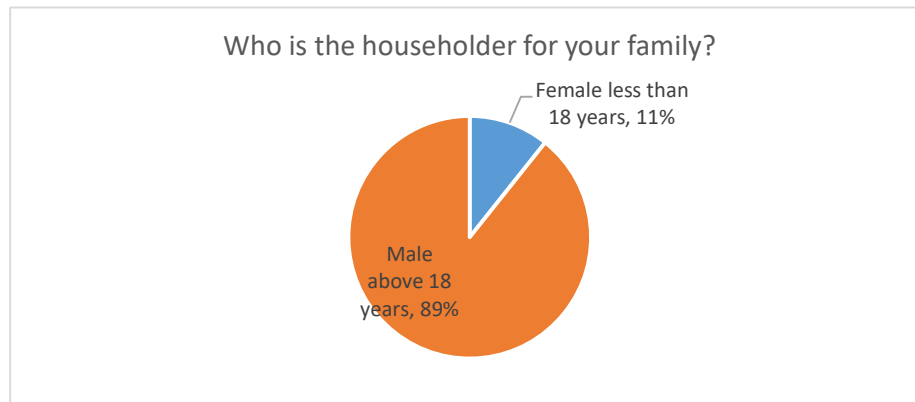
The study used a sample of 151 questionnaires that were distributed in different locations with varying climate and water sources. The sampling error was 5% and the confidence level was 95%. The data collection took place from July 20, 2023 to July 30, 2023. Out of the total sample, 46% were from Idlib Governorate, specifically from Dar Kush, which is situated on a tributary of the Asi River, as well as Maarat Misrin and Idlib city, which rely on wells for water supply. The study also included some camps in Idlib, such as Deir Hassan and Dana camps, where the water quality is poor and hard. The data were then analyzed using appropriate methods.

The study asked the participants about their water sources, availability, and challenges, as well as their awareness of the water consumption per person, the organizations working in this sector, the practices to obtain clean water, and the level of water pollution.

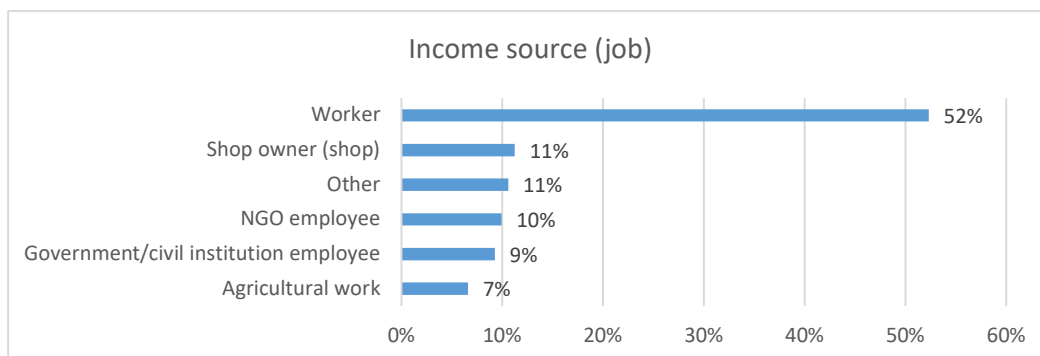


Respondent status and general information:

The sample targeted 45% of the internally displaced from the aforementioned locations and 46% of the host community, so that 28% of the respondents were females and 72% were males. The survey result showed that 3% of the respondents said that the breadwinner of the family is a woman over 18 years old.



The respondent families have an average of 4 children, and an average of two women in each family and two men. Where the number of children in some families is up to 8 children in one family, and also up to 8 women in one family and 9 men in one family.



The chart aside shows the respondents works and the sources of income they depend on, so that 52% of the respondents work as daily workers with various jobs such as portage and concrete, and the wages they receive are daily wages that are not sufficient for the daily expenses and requirements of the family daily work demand.

As for the other professions mentioned by the respondents, 7% of them work in agriculture, 11% of them own shops (shops and small kiosks selling food or non-food items), 9% of them are employees in civil institutions, and 10% of them work in non-governmental organizations.

Climate changes:

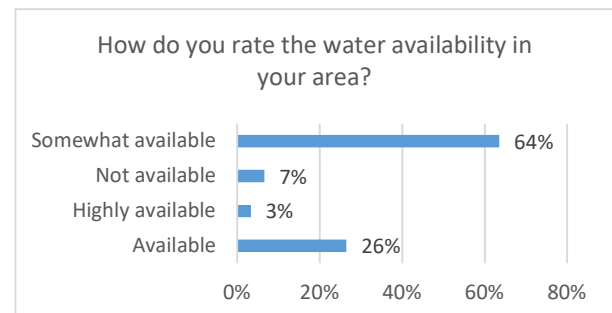
We should realize that climate changes affect water security in different ways, in general Climate changes cause changes in the water cycle, which leads to changes in the quantity, quality, distribution and availability of water resources. Some of these changes may be positive, such as an increase in precipitation in some areas, or negative, such as a decrease in the water level in rivers, lakes, or aquifers, or an increase in water pollution or a deterioration in its quality, or an increase in the intensity and frequency of severe weather events such as droughts or floods.

This region has been witnessing a state of conflict and humanitarian crisis since 2011, which has negatively affected its ability to manage and protect its water resources. This region also suffers from an acute shortage of water due to several factors, including climatic changes. According to a report from the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), northwest Syria is suffering from the worst drought in 70 years, as a result of a significant decrease in the amount of rain (40-50% less than the average) and high temperatures (2-3 degrees higher than the average), which led to a decrease in the water level in rivers, lakes, wells and reservoirs. This drought has caused a significant loss of agricultural crops and livestock, and increased the risk of waterborne diseases.

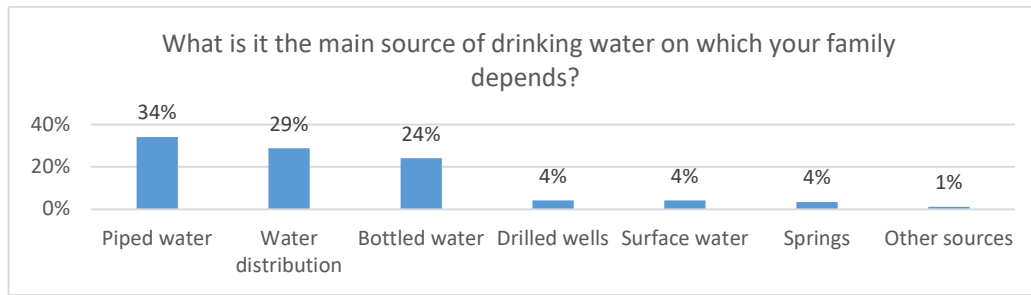
So, we can conclude that climatic changes have negatively affected water security in northwest Syria, and that these effects are exacerbated by other factors such as increased population density and political tensions. This poses a great danger to the lives, health and dignity of the population in this region, and requires urgent and comprehensive humanitarian intervention to alleviate suffering and improve conditions.

Water sources and type of networks

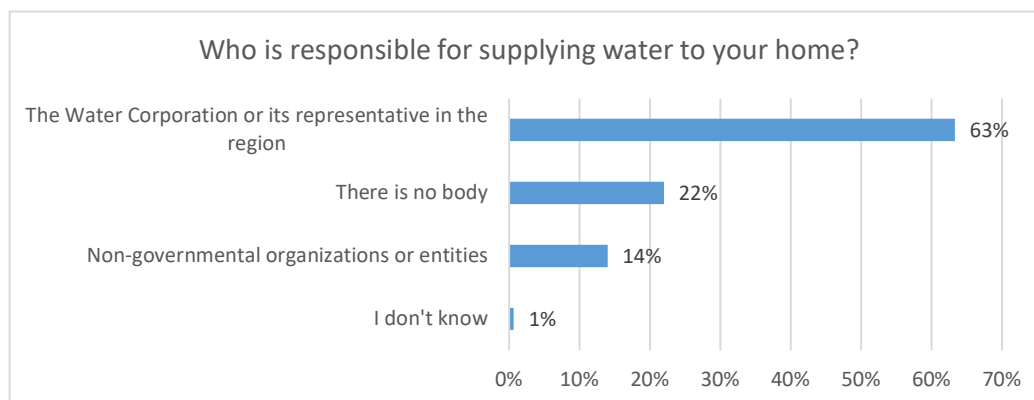
According to the opinions of the respondents participating in the study, 7% of the participants in the study believe that water is not available in northwestern Syria, and in return 3% believe that water is abundantly available, while 64% of the participants said that water is available to some extent, and the participants indicated that the main source of drinking water on which the household relies, so we find that 34% of the participants depend on piped water as the main source of drinking water, and up to 2% of those who depend on the piped network drinking water reaches them through a faucet or a public water outlet in which a group of families and the rest participate The water network reaches the house or the yard next to the house.



The results showed that 29% of the participants depended on the distribution of water, so that (96%) were distributed through tanks, and (4%) relied on the distribution of water through a small tank or a barrel on wheels, in addition to 24% depend on water bottled in healthy mineral water bottles or bottles packed locally through simple filtration plants in the local market, 4% on dug wells, 4% on surface water, and 4% on springs.

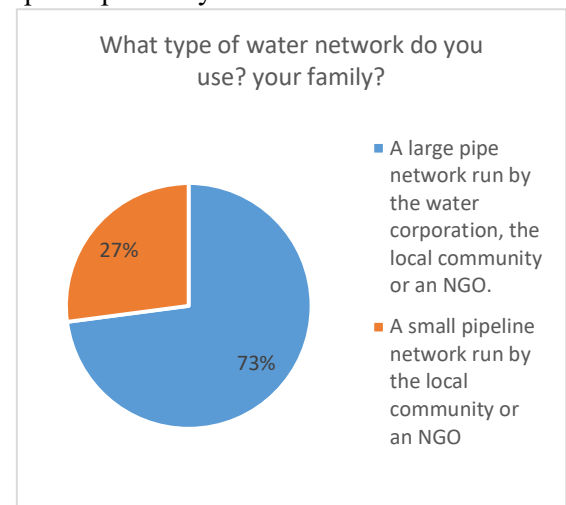


Those who see that water is not available in the region are those who rely on a network of pipes, tanks, locally bottled water, and dug wells as a source of drinking water. The reason for this result can be analyzed by cutting off water from the authorities responsible for water supply like water units and local councils in the case of the water network. The condition of the tanks could be due to the high prices and high costs of obtaining them in the event that families depended on buying water through tankers, or because of the cessation of support and supply of water by organizations that relied on distributing water through tanks, but those who see that water is not available from Those who depend on bottled water, the reason is due to its high prices, and families need large quantities of drinking water due to the large number of family members. As for those who depend on dug wells, the reason may be the high costs of extracting it, and it may be due to the decrease in the groundwater level due to the climate changes.



The largest percentage of families in northwestern Syria depends primarily on a water network connected to the house or to the yard next to the house as a source of drinking water and use together, and in the second place comes the distribution of water in tanks, either by purchasing it or distributed by a supportive party such as a non-governmental organization, as an example of these working organizations In northeastern Syria, Ihsan Organization, Shafak Organization, Solidarity Organization, ACTED Organization, IYD Organization, Green Hands Organization, and others are involved in this sector.

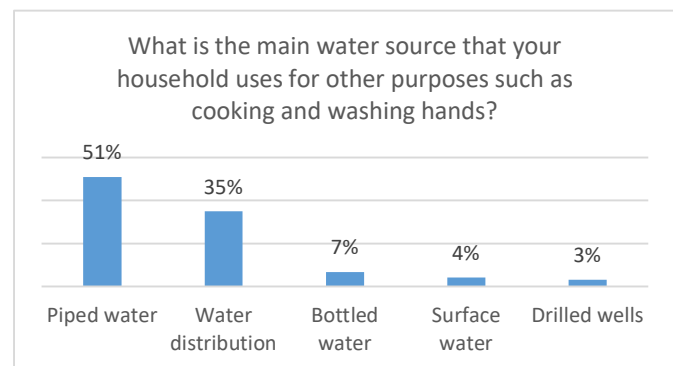
The adjacent figure represents the types of networks available in the region.



According to the results, we found that the largest percentage of families in northwestern Syria depends primarily on a water network connected to the house as a source of drinking water and use together, and in the second place comes the distribution of water in tanks, either by purchasing it or distributed by a supportive party as a non-governmental organization, so we recommend the quality of projects by the parties those interested and working in this field focused on the expansion of water networks and maintenance and rehabilitation projects for the stalled networks. We also recommend conducting a survey of the areas that depend on purchasing water through tankers and supporting these families by subsidizing the costs of purchasing tanker water due to its high prices, according to what this category of families mentioned that water is not available, which we attributed to the high prices for obtaining it.

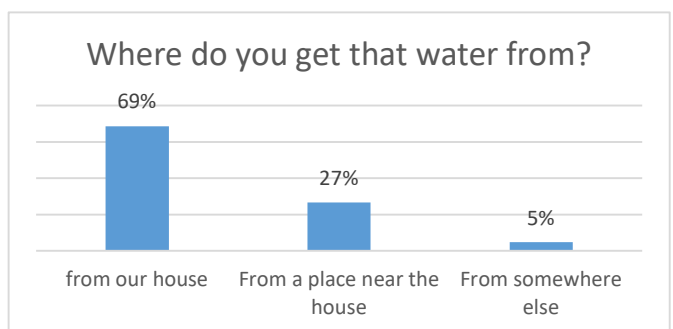
On the other hand, the study shows that 51% of the participants depend on piped water as the main source of water for use such as cooking, washing, showering and washing, and of those around 2%, drinking water reaches them through a faucet or a public water outlet shared by a group of families, and what remains is connected to the water network to the house or the yard next door to the house.

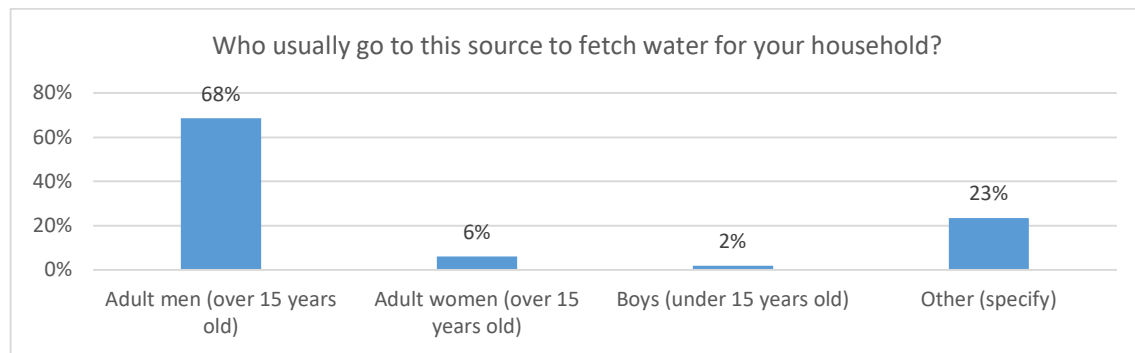
The results showed that 35% of the participants depended on the distribution of water, so that (95%) were distributed through tanks, and (5%) relied on the distribution of water through a small tank or a barrel on wheels, in addition to Therefore, 7 % depend on bottles packed locally through simple filtration plants that are widespread in the local market, 3% on dug wells, and 4% on surface water.



Water fetching challenges

The results showed that 27% of the respondents said that they fetch water from outside the house, so that some families are forced to fetch water from outside the house at a rate of twice a day, and some families sometimes reach up to 7 times a day, and this is a stressful factor for families who fetch water from a place outside the house, especially So what They depended on people who were unable to do this task, as the survey showed that 2% of these families depended on children under 15 years of age to fetch water for the house, and 6% of these families depended on women to fetch water, and the distance that these families traveled to fetch water ranged About half an hour and sometimes up to two hours to reach the place to fetch water.

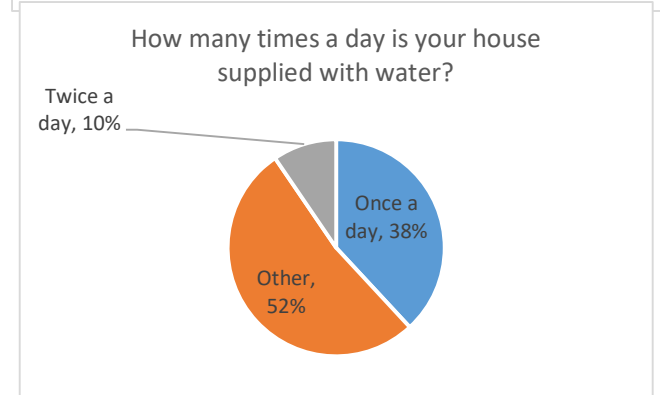
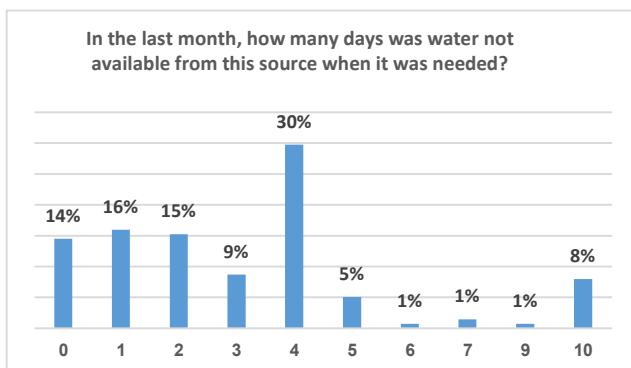
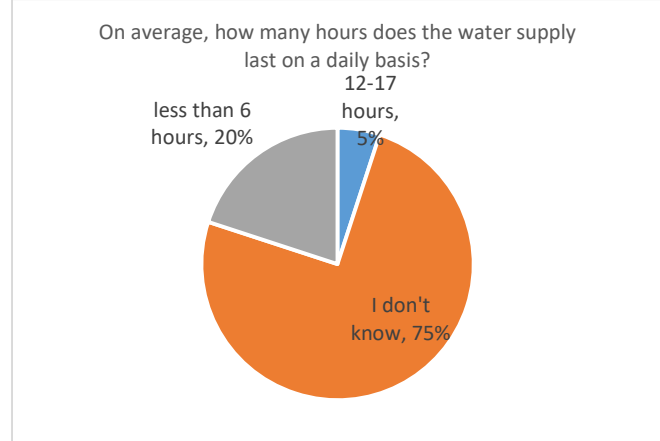
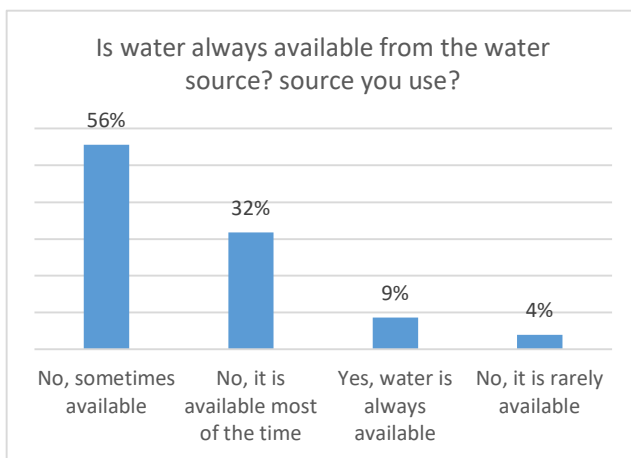




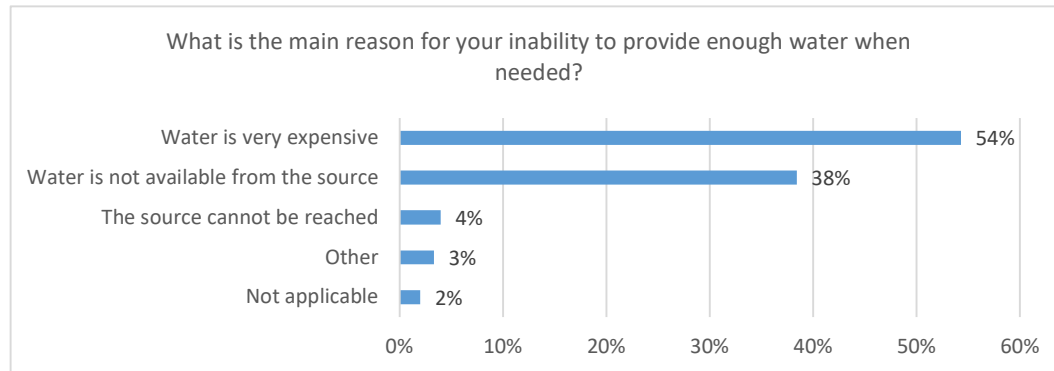
We believe that it is important to work on projects to deliver water to homes to overcome the problem of fetching water from outside the house. Also, the need to strengthen child and women protection programs in northwestern Syria and awareness programs for child labor and not to rely on them and women in such work.

Water supply interruption

64% of the families suffer from a shortage of the necessary quantities of drinking water, as the results of the study show that 36% of the families are provided with water once a day and 10% twice a day. On the other hand, 56% of the participants believe that water is available in varying periods from the source they depend on, and 4% said that it is rarely available. The results show that 5% of families suffer from water supply interruptions of 12 to 17 hours per day, and 20% of families suffer from water interruptions of 6 hours per day.



The respondents also stated that there are several reasons for the inability of these families to secure sufficient water when they need it, and it was primarily (52%) that water is very expensive and therefore due to the poor living conditions of the families and the lack of adequate income, as 52% of the families are the head of the household He works in daily work, which is not enough to meet the family's expenses. When the water is cut off, these families are unable to secure alternative water when they need it. Some families (4%) reported that they cannot access the water source.



From the previous results, we conclude that water outages are frequent in the study areas, and this matter increases the suffering of families who cost on other sources of water during the period of interruption, and sometimes they are unable to secure water when needed because of its high price or inability to access the water source.

Therefore, it is necessary to conduct the necessary studies to monitor the areas that suffer from many interruptions in the water supply, and to work on establishing specific projects that deal with the frequent interruptions and families' lack of water when they need it.

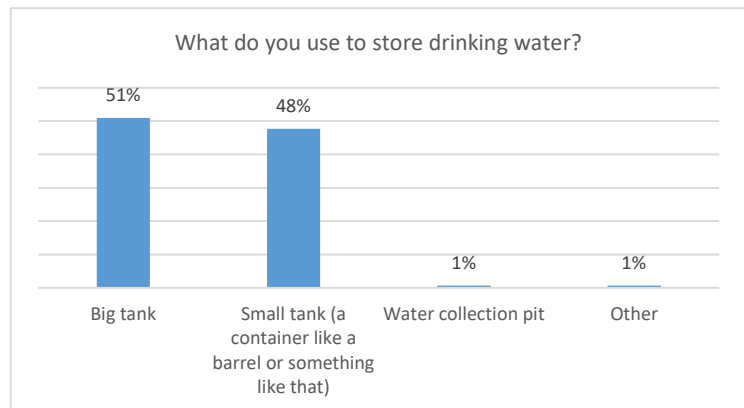
also recommend the actors responsible for water supply to address the issue of frequent water cuts.

Water storage

Families adopt multiple ways to store drinking water, as 51% of families use a large tank and 48 % use a container such as a barrel or the like, and 1 % uses a pit to collect water.

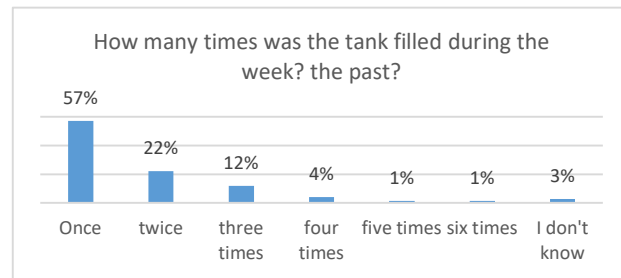
The vast majority of families use tanks with a capacity of 10 barrels, some families use tanks with a capacity of 5 barrels, and others with a capacity of one or two barrels.

The results show that the number of times the water tank is filled for families are varies, as we note that 57% of the families with an average of 8 individuals and an average tank capacity of 5 barrels, fill their tank once a day. This indicates that the average daily per capita share of water (drinking water and water



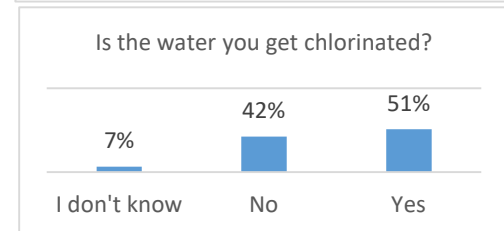
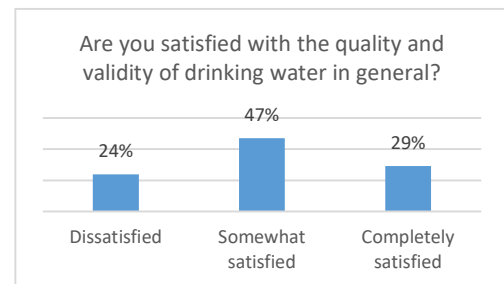
for use) is about 32.8 liters per day. And also 22% of the families whose tank is filled twice a day, with an average of 7 individuals, we note the per capita share index of 33 liters, in addition to 12% of the families whose tank is filled three times a day, with an average of 7 individuals, the per capita share per day is 26.6 liters.

Compared to the basic indicator according to Sphere standards, which states that the average amount of water used for drinking and household hygiene per household is estimated at 15 liters as a minimum per person per day, we note the amount of water supplied, estimated per capita share between 26.6-33 liters, and this quantity achieves the basic indicator estimated at 15 liters per person.



Water quality and validity

When we asked families about the quality and validity of the drinking and use water that they get, 26% of them said that the drinking water is bad and very bad, and 14% of them said that the drinking water is bad and very bad, and in more detail behind this result, we found the results showing 24% of the families are not satisfied with the quality And the validity of drinking water , and 24% are not satisfied with the quality of the water used, which reinforces the result that 21% of the families reported that the taste of the water they get is unacceptable, and 11% said that the smell of the water is unacceptable, and 9% told us that the color of the water is not clear. Also, 42% of families do not receive chlorine -treated water. And 28% of these families Its water source is either piped or distributed in tanks.



We found that 26% of the families said that the authorities responsible for distributing water through pipes are often the water institution or its representative, which is responsible for distributing unchlorinated water, and 2 % of the organizations operating in the study area are responsible for distributing unchlorinated water.

From these results, we recommend the necessity of activating third party monitoring and evaluation on the organizations working in these projects to ensure the quality and suitability of drinking water, as the results of internal monitoring and evaluation teams may be inaccurate or not cover all sites, which would cause water suppliers not to add chlorine on water or using tanks that are not suitable for transporting water.

Water pollution

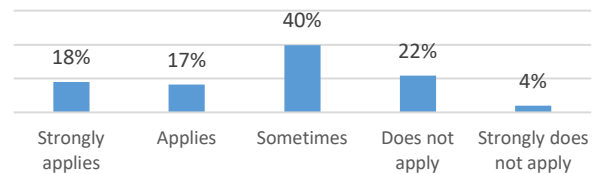
We note that 25% of families use the same tank to store drinking and usage water together, and that 6 % of families use the same tank to water their livestock and animals. This could lead to many diseases that are transmitted from animals to humans, or because the water is not suitable for drinking, and these families are forced to use it as drinking water. Families can resort to this situation due to urgent circumstances that were discussed in the previous paragraphs, the most important of which is the frequent water cuts and the high prices of bottled drinking water. This in itself is a problem that leads to a bigger health problem whose symptoms have appeared in the region, where we have recently noticed the spread of cholera and other diseases, the most important of which are the contamination of drinking water and food.

Consequently, the organizations working in this field bear the responsibility for these problems, and these organizations should promote health awareness campaigns and implement interventions that would eradicate this phenomenon.

In addition to the previous problem, according to what the participants mentioned, 18% of them said that they live near stagnant and collected water, and although 70% of them said that there is a sewage network that serves their place of residence, 19% of them said that there is sewage water drained and leaking near them. And 9 % of them said that the water sources they depend on are affected by the sewage network Sanitary, where sometimes overflows occur in the network (36%) and sometimes its smell spreads (24%).

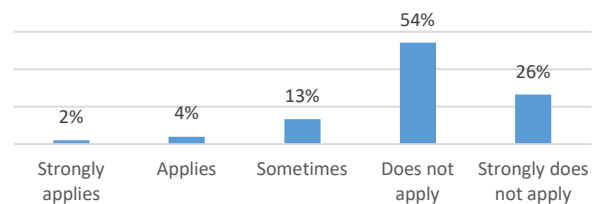
And as practices among some families, we found that 49% of these families resort to drawing usage water (such as washing, washing, and bathing) after using it in a nearby watercourse, and 38% of these families leave it to run and wither in the open. This matter increases and exacerbates the problem of water pollution, and therefore we recommend the rehabilitation of water networks Sanitary drainage and conducting periodic maintenance of it. We also recommend

How does the following sentence fit your situation? "My family uses the same water tank for both drinking and use"

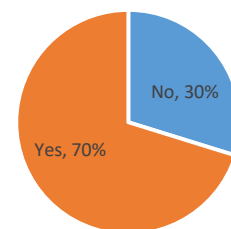


How does the following sentence fit your situation?

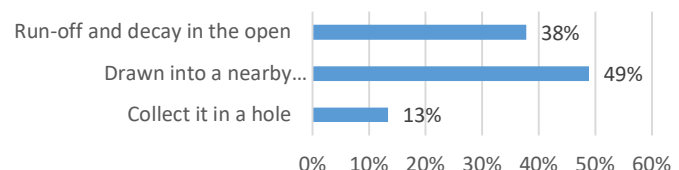
"The animals and livestock that I have, drink from the same tank that we use for our daily uses"



Is the site where you live serviced by the sewage network?



If No (there is no sewage network), what hat is the way to get rid of water after use?



the need to treat exposed sewage and build closed channels to withdraw them to a suitable place to avoid health consequences in the community.

From another hand, the problem of watering plants with polluted water from sewage waste is added to the previous problems. 20% of the participants reported that they are aware of plants being watered with this polluted water, and 51% of them told us that there are no controls by the authorities to limit this phenomenon.

A worker (HOIHR³) in a non-governmental organization says: *"There are many crops that are watered with sewage water, such as vegetables that have stems, as well as crops, and there are procedures and controls that prevent this, but despite that, the local authorities turn a blind eye to such cases, either because they do not provide to control the subject or in order to reduce the amount of water received through sewage, which causes pollution of groundwater"*.

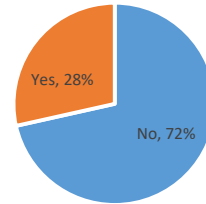
Another (LOWV) who works for another organization says: *"Yes, in the southern neighborhood of Azaz, the crops are watered with sewage water, and everyone is aware of this, and there are no legal controls for this process that is taking place in the region, even laws to prevent it do not exist"*.

One of Azaz Water Corporation employees (AZWE) in the confirms: *"There are a number of agricultural areas in the vicinity of the city of Azaz that depend on sewage for the cultivation of irrigated vegetables, and the Agricultural office did not take any measures to control or limit the issue"*.

On the other hand, an official (WSM) in the Directorate of Water Resources in one of the study areas in Idlib and the western countryside of Aleppo says: *"There are many crops that are irrigated with sewage water, and there is no specific type that is cultivated, and that is due to the farms. The Ministry of Agriculture and Irrigation took immediate measures to eliminate the phenomenon of irrigating crops with sewage water, so it formed an agricultural officer to intensify efforts and work to destroy crops irrigated with this water, and issued a circular stressing It was forbidden to irrigate all agricultural crops, without exception, with wastewater, and a number was allocated to report any violation in this regard, due to the health consequences it would cause to the people"*.

We recommend media mobilization to draw attention to this phenomenon and make the responsible authorities pay attention to this issue and enact the necessary laws to reduce it.

Are you aware of any crops in this region that depend on irrigation from sewage and sewage waste?



³ A code that stands for one of the respondents participating in the study

The effect of lack of water

The results show that 39% of families believe that water affects the living aspect, as families are sometimes forced to buy water tanks due to frequent water cuts, or to buy healthy bottled water for drinking, in addition to buying water for use sometimes, despite the costs of purchasing drinking water that are expensive and disproportionate. With the per capita income, especially in the conditions of the poor living situation.

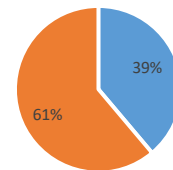
Not to mention that some 15% of families resort to showering, cleaning, or washing themselves without using cleaning materials, due to the inability of these families to purchase these cleaning materials due to unemployment and limited income, and in order to provide enough to cover the cost of buying water.

One of the participants says, *"When we are cut off from drinking water, we have to rely on healthy bottled water, which is very expensive, despite the limited income and poor living conditions"*.

On the other hand, 61% of the participants indicated that the lack of water affects the health aspect, as it leads to the accumulation of dirt and waste residues in the house due to the lack of cleaning water, in addition to the spread of scabies among children due to lack of bathing, and it may also lead to cases of dehydration due to the interruption of drinking water.

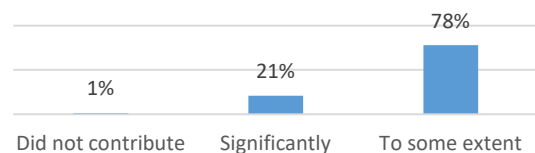
Consequently, the organizations and agencies operating in the region should attach importance to interventions that would increase the family's monthly income and contribute to alleviating the burden of the family's daily expenses, which contribute to strengthening the family's ability to secure the basics of its daily life, primarily water.

In general, what is the impact of lack of water over your need on aspects of your daily life?



■ Affects the living side ■ Affects the health side

To what extent did the water services enable you to meet the basic needs of your family

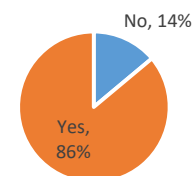


Did not contribute Significantly To some extent

Consumption and costs of obtaining water

The results show that 86% of families buy water for use and 75% buy water for drinking. According to the survey we conducted, we found the results in Table 1, which shows the amount of water consumed per day for each family (usage water), from the results of the table compared to the main indicator according to Safir standards, which states that the average amount of water used for drinking and household hygiene per household is estimated at 15 liters as a minimum per person per day (It was discussed in a previous paragraph), but the minimum quantity is not achieved, and this is an indication in itself of the disparity in the quantities of water supplied in the regions of northwestern Syria. They face a real problem in the quantities of water and the frequency of its supply, which leads to health and living

Do you pay for your drinking water?



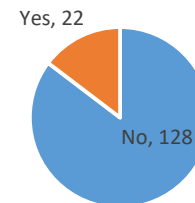
consequences of the study. The result can be generalized so that we can say That as explained in the result of the previous paragraph

	Average	Minimum	Max
Clothes Washing	9	2	30
Dishwashing	6	2	13
Bathing	27	6	51

Table 1 - Water intake Consumed per day according to the result of the survey / liters

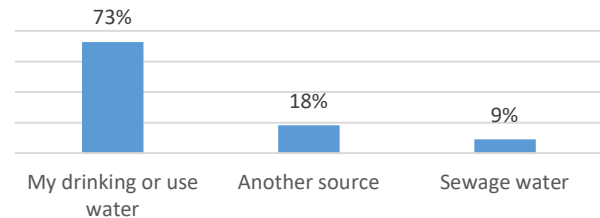
In addition to the quantities consumed in the previous table, some families may own cultivated lands or livestock and animals that need water. The results show that 15% of families own crops that depend on water, 83% of these crops are a small plot of land adjacent to the house (plants Summer for home service such as mint, parsley, onions, garlic, radishes....etc.) , 73% of these families said that they use their drinking and usage water to water these plants (meaning that they charge for watering these plants from the same tank they depend on for storage drinking water and use) and therefore this also reduces the value of the indicator of the average quantity of drinking and usage water.

Do you have plants that depend on water?



Also, families sometimes (9% of families) resort to using sewage waste and watering these crops, which affects pollution. In addition to the quantities that families consume of drinking and use water and the costs on it according to the current prices, we note that there is an increase in the cost of obtaining water on an annual basis, and 25% of these families believe that the increase rate is about 100%, while 34% of these families believe that the annual increase rate is more of 50%, and 39% said that the increase rate ranges from 10% - 50%.

What is the source of water for watering these plants?

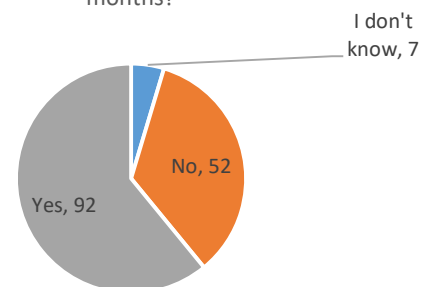


This increase in water prices constitutes an obstacle for families, especially since they live in a bad living situation and are forced to buy water for many reasons, including water cuts, frequent periods of water supply, and the quality and validity of the water.

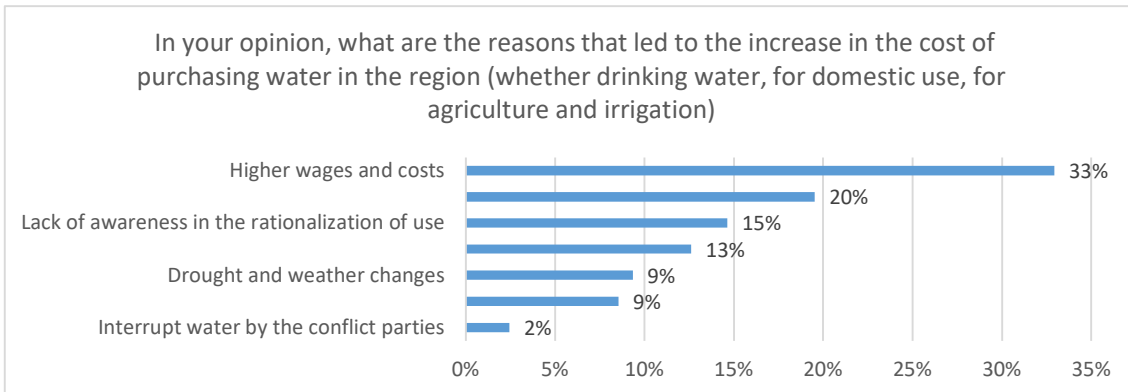
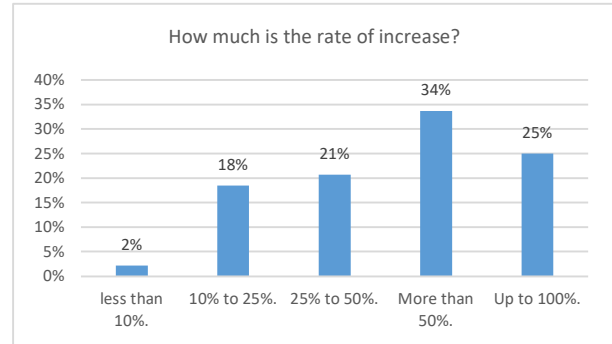
According to the participants in the study, there are several reasons for this increase, as seen by the respondents. It comes primarily with 33%

families believe that the annual increase rate

Have you noticed any increase in the cost of obtaining water compared to the past 12 months?

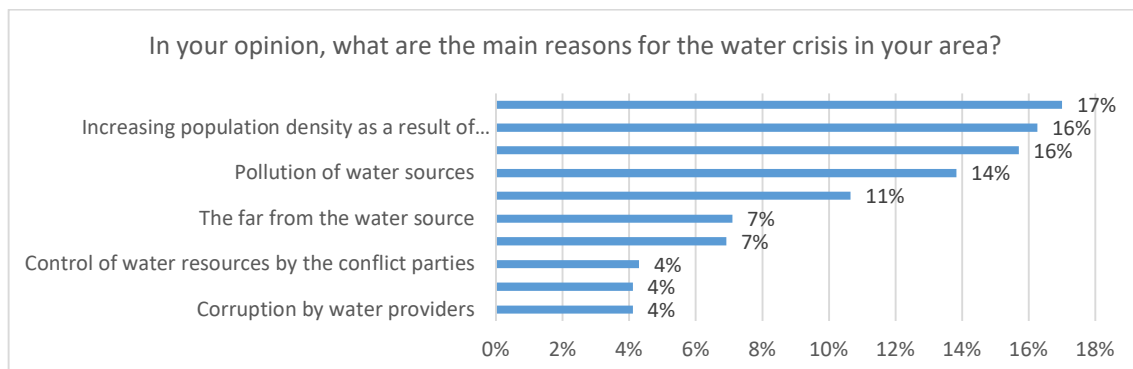


increase in wages and costs, followed by 20% increase in population density in the region and up to 22% decrease in the water level inside the wells, drought and climatic changes, including 9% who believe that the lack of awareness in rationalizing water consumption is one of these reasons, and 2% of them said that cutting off water by the conflict parties is a reason for increasing water prices.



Water challenges

According to the results, 17% of the families participating in the study believe that the lack of support for water projects is the main reason for the existence of the water crisis in northwestern Syria, while 16% believe that the increase in population density as a result of displacement, which in turn led to an increase in consumption rates, comes in second among the reasons for water crisis in northwestern Syria, and with it comes in the second place (16%) the high costs of obtaining water, in addition to that 14% see water pollution as the reason behind the existence of the water crisis, in addition to other reasons, according to what the respondents mentioned including the dryness of wells and natural water sources (11%), 7% far from water sources, 7% damage in water networks, 4% control of water resources by the conflict parties, and 4% of families believe that corruption by the water supplier is among these reasons.



Plans, governance and response

According to a previous result that was discussed, we found that the largest percentage of families in northwestern Syria depends primarily on a water network connected to the house through the Water Corporation or its representative in the region 63%. In the second place comes water that is distributed in tanks through a supportive agency such as a non-governmental organization 14% , and according to this result, we conclude that the response in northwestern Syria is limited, as it constitutes only 14% according to the opinions of the respondents , and also 8% of the respondents believe that the response is bad and very bad, while 28% of them believe that the response is medium, one of the participants says: " *There are no organizations that support, knowing that the city's water source is bad*", in contrast, 62% of them think that the response is good. As for the maintenance and rehabilitation of the available water networks, we found that 38% of the respondents told us that there is no periodic maintenance by the civil or non -governmental organizations responsible for these networks.

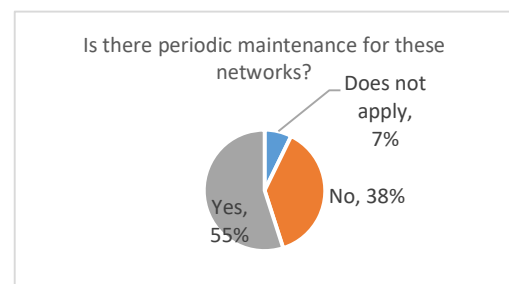
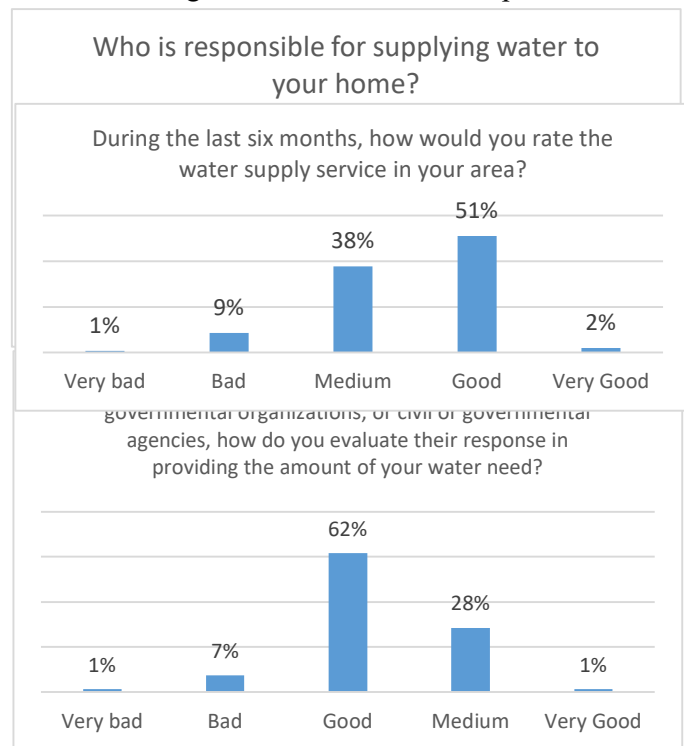
One of the participants says: "*The water networks in our region need maintenance and rehabilitation to reach a number of cities and villages*".

Consequently, organizations working in this sector should implement needs assessment studies in northwestern Syria and implement interventions that would cover multiple regions and the response in this sector would be on a broader level. According to the respondents, there are several reasons for the weak response of the authorities in supplying water, including the lack of large projects to secure clean and healthy drinking water, discrimination by suppliers, the lack of fair distribution of water to neighborhoods, the need to increase the number of pumping days, and the lack of water treatment to make it drinkable.

One of the respondents says: "*There are families who do not receive water during distribution*".

Another says: "*The water comes to the house once a week, which is not enough to secure the family's needs*".

On the other hand, an official (WSM) in the Directorate of Water Resources in one of the study areas in Idlib and the western countryside of Aleppo says, " *Our institution implements and follows up the implementation of many projects in the field of water (rehabilitation of stations - providing stations with operational materials - supplying camps and cities with drinking water - construction Sewage lines - Follow-up of water lines and work to fix them - Building aerial water tanks - Establishing water networks – holes Wells - restoration*



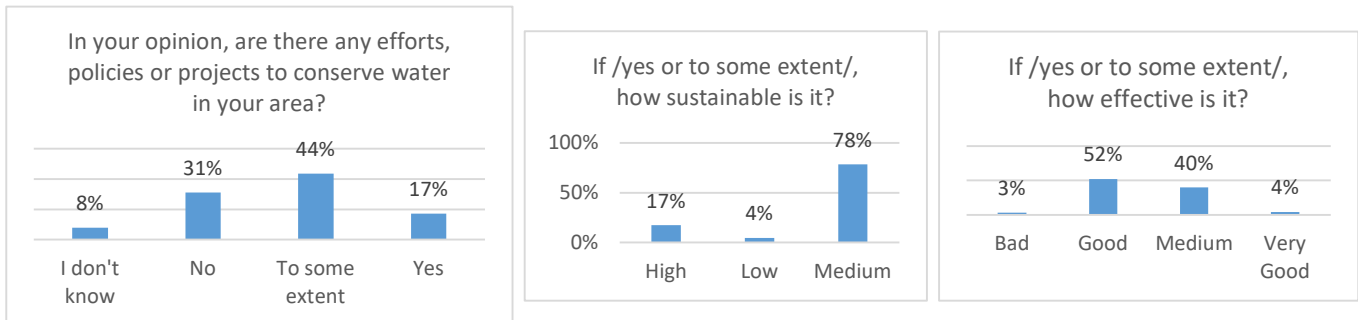
of dams - establishment and follow-up of the establishment of solar energy systems for water stations) and the enactment of laws and the development of regulatory systems".

WSM continues, saying: " The number of implemented projects so far are (34), and the number of planned projects is (18), and the beneficiaries number reached to (2000) families, and (1 million individual beneficiaries)".

In the Azaz region, one of the employees (AZWE) in the Azaz Water Corporation tells us that the corporation is working on a pumping project for the city of Azaz only, in addition to network maintenance projects, as the number of beneficiaries from these projects reached about 200 thousand individuals (10 thousand beneficiary families). And the number of projects planned to be implemented are two projects, the first is a project to install solar energy for the pumping station in Sharan, and the second is to maintain the network in a number of Azaz neighborhoods. According to him, the partner organizations in these projects are World Vision - Shafak - ACTD – IYD.

(BLCWO) in the water office in the city of Al-Bab says, "The type of projects that we carry out are drilling wells, equipping them, expanding the city's water network, maintenance, and control of violations, in Al Rai- Susiyan - Al Bab. and the number of BNFs is 10,000 families/ 50,000 individuals".

According to the results, we found that 31% of the respondents said that there are no efforts, policies or projects by the responsible and active authorities in this sector to conserve water in the region, while 17% believe that it is exist, and 44% do exist to some extent, and 4% of those said that Its sustainability is low and 3% say its effectiveness is bad, while 17% see its sustainability as high and 56% see its effectiveness as good and very good.



In this regard one of the employees (AZWE) in the Azaz Water Corporation tells us, says: "There are only timid awareness-raising operations that are carried out through the media to prevent waste or random digging, and there is simple awareness-raising by youth organizations and teams, but most efforts are not mandatory and not effective".

"Efforts are almost non-existent" one of the workers (HOIHR) in NGOs confirms.

Another official (LOWV) who works for another organization says: "There are no efforts, neither at the local nor regional levels. We are facing a water crisis in our area due to the low water level, and continues in well drilling has led to a shortage of groundwater without efforts to stop it".

Results

- Families who depend on a network of pipes, tanks, locally bottled water and wells dug as a source of drinking water suffer from water shortages and sometimes unavailability.
- The largest percentage of families in northwestern Syria depends primarily on a water network connected to the house or to the yard next to the house as a source of drinking water and use together, and in the second place comes the distribution of water in tanks, either by purchasing it or distributed by a supportive party such as a non-governmental organization.
- Some families depend on children under the age of 15 to bring water to the house, and some families rely on Women to fetch water.
- Water outages are frequent in the study areas, and this matter increases the suffering of families who have to pay for other sources of water during the interruption period.
- 26.6-33 liters per capita, and this amount achieves the basic indicator estimated at 15 liters per person.
- 2 % of the organizations operating in the study area are responsible for distributing unchlorinated water.
- Some families are forced to use the same drinking water tank to water the livestock and animals that you own due to emergency circumstances The most important of which is the frequent water outages and the high prices of water.
- Absence of controls by the authorities to reduce the phenomenon of watering crops with sewage and sewage water.
- Northwestern regions of Syria face a real problem in the quantities of water and the frequency of its supply, which leads to health and living consequences.
- Some families in northwest Syria resort to using sewage waste and using it for watering Field crops that they own, which affects pollution and health problems.
- There is an annual increase in the cost of obtaining water, and 25% of the participants in the study believe that the rate of increase is around 100%.
- Lack of support for water projects is the main reason for the existence of the water crisis in northwestern Syria. The second rank is the increase in population density as a result of displacement and the high costs of obtaining water.
- The response in northwestern Syria in the water sector projects non-governmental organizations are limited, as they constitute only 14%, according to the opinions of the participants in the study.

Recommendations and suggestions

- We recommend a qualitative project by the parties interested and working in this field so that the focus is on the expansion of water networks and maintenance and rehabilitation projects for the stalled networks.
- We recommend conducting a survey of the areas that depend on purchasing water through tankers and supporting these families by supporting the costs of purchasing water from tankers due to its high prices.
- Work on projects to deliver water to homes to overcome the problem of fetching water from outside the house.
- The need to strengthen child and women protection programs in northwest Syria and awareness programs for child labor and not relying on them and women to fetch water.
- The necessity of conducting the necessary studies to observe the areas that suffer from many interruptions in the water supply, and to work on establishing specific projects that deal with the frequent interruptions and families' lack of water when they need it.
- We recommend the actors responsible for water supply to address the issue of frequent water cuts.
- We recommend the necessity of activating the monitoring and evaluation of a third party on the organizations working in these projects to ensure the quality and suitability of drinking water.
- Organizations should promote health awareness campaigns and implement interventions that would eliminate the phenomenon of using a drinking water tank for other purposes and watering livestock and animals from it and the resulting health problems.
- We recommend rehabilitating the sewage networks and conducting periodic maintenance.
- We recommend that open sewage should be treated to avoid health consequences in the community.
- We recommend media mobilization to draw attention to the phenomenon of watering crops with sewage and sewage water, and make the responsible authorities attach importance to this issue and enact the necessary laws to reduce it.
- Organizations and agencies operating in the region should attach importance to interventions that increase the family's monthly income and contribute to alleviating the burden of the family's daily expenses, which contribute to strengthening the family's ability to secure the basics of its daily life, primarily water.
- Organizations working in the water sector should carry out needs assessment studies in northwestern Syria and implement interventions that cover multiple areas, and the response in this sector is on a broader level.

End of report