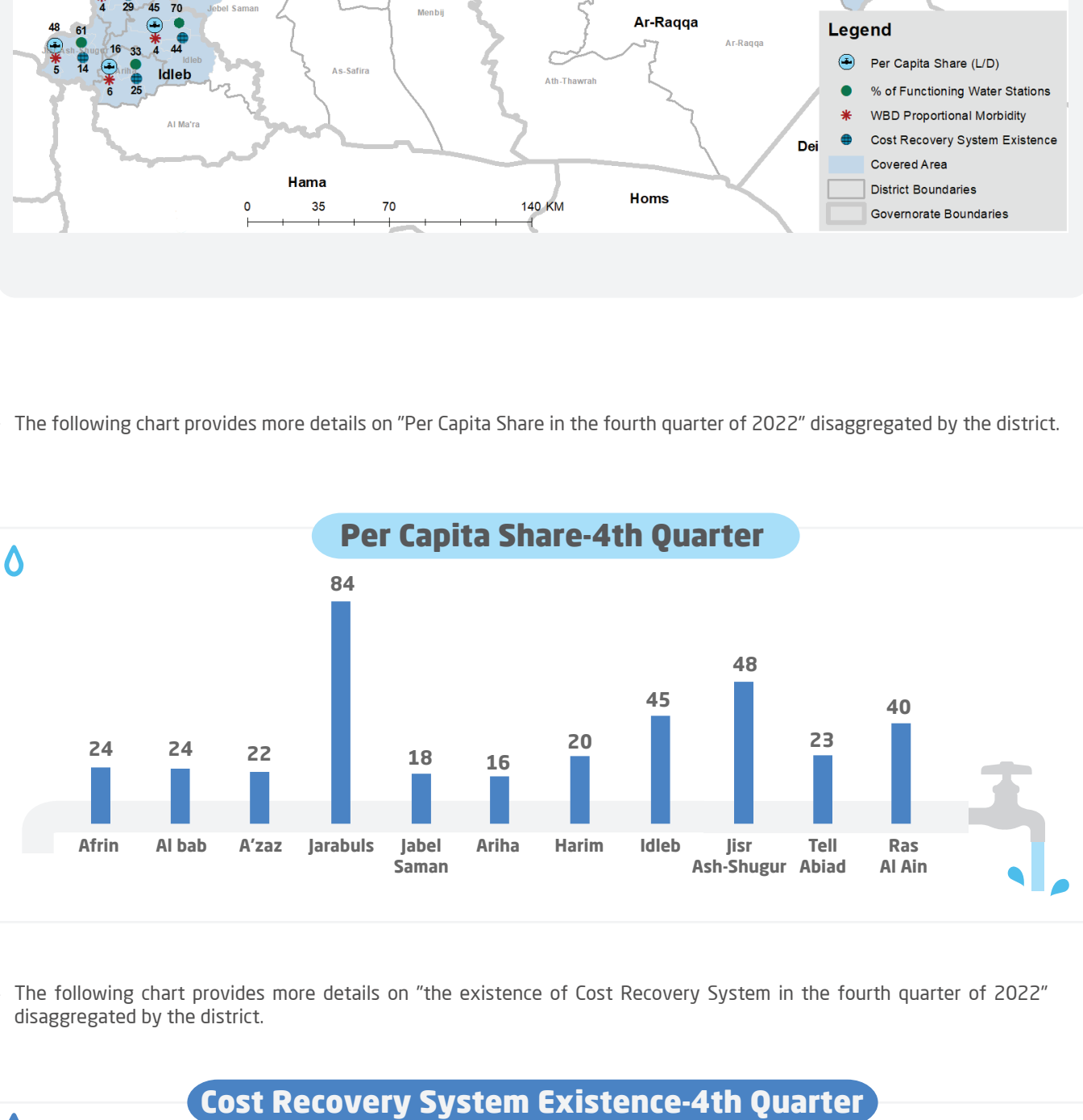


Highlights on the reality of Water Systems

Drinking-water Availability - Water-borne Diseases North Syria

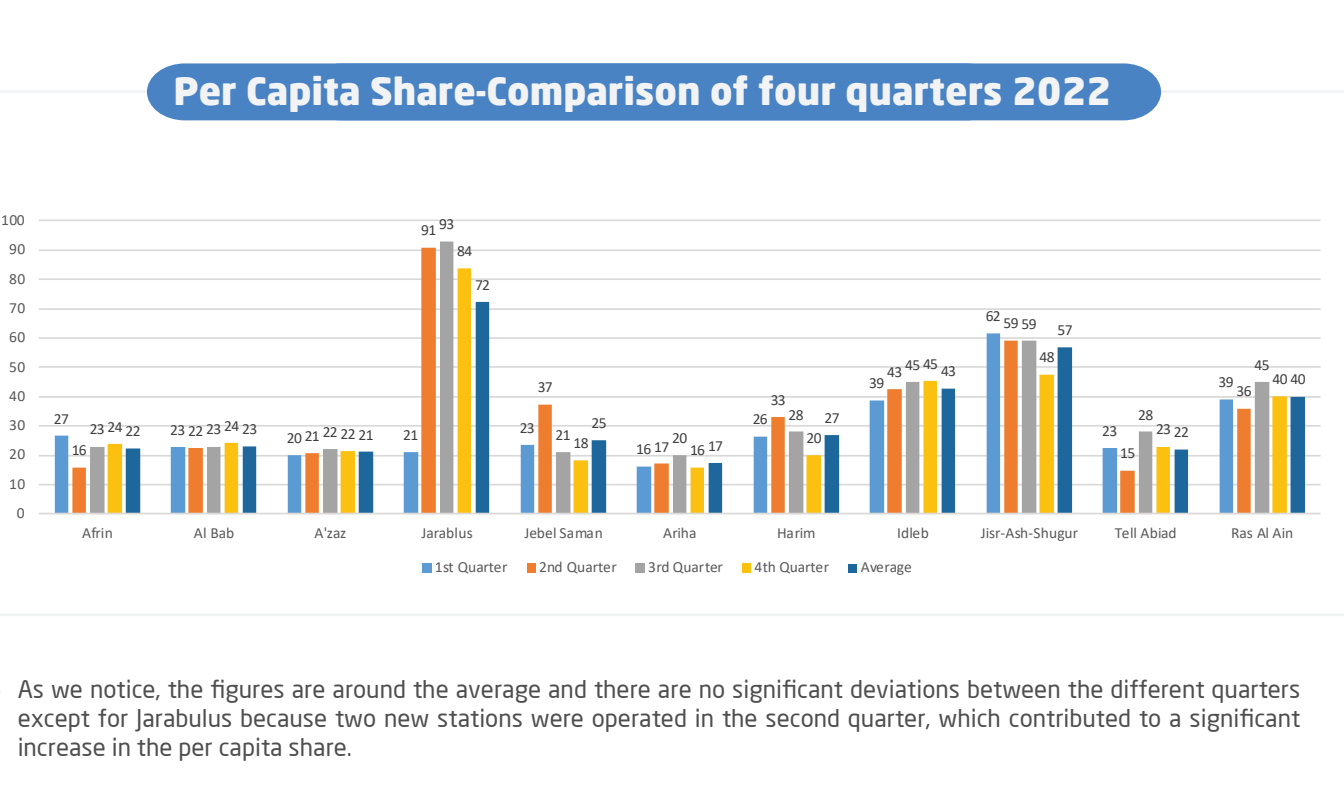
4th Quarter 2022

Coverage of WASH



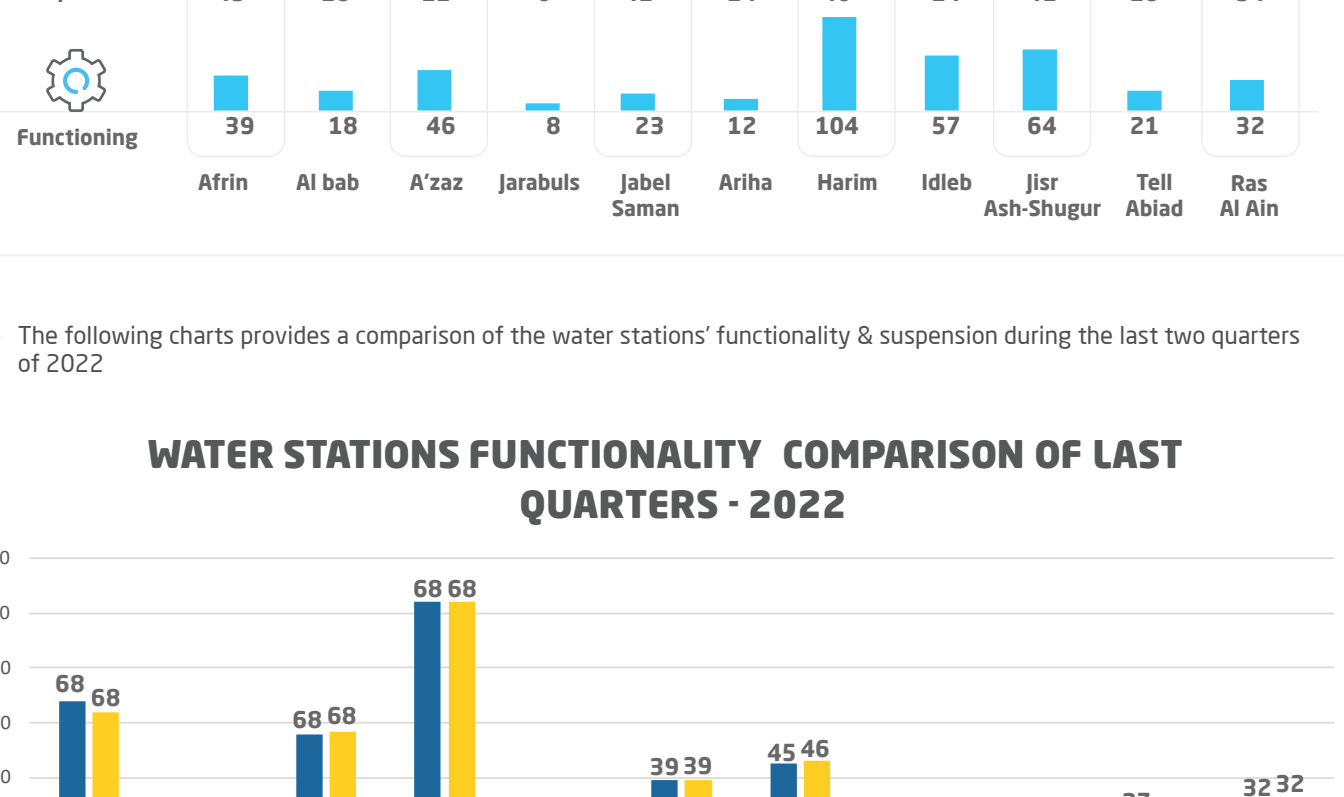
1- The following chart provides more details on "Per Capita Share in the fourth quarter of 2022" disaggregated by the district.

Per Capita Share-4th Quarter



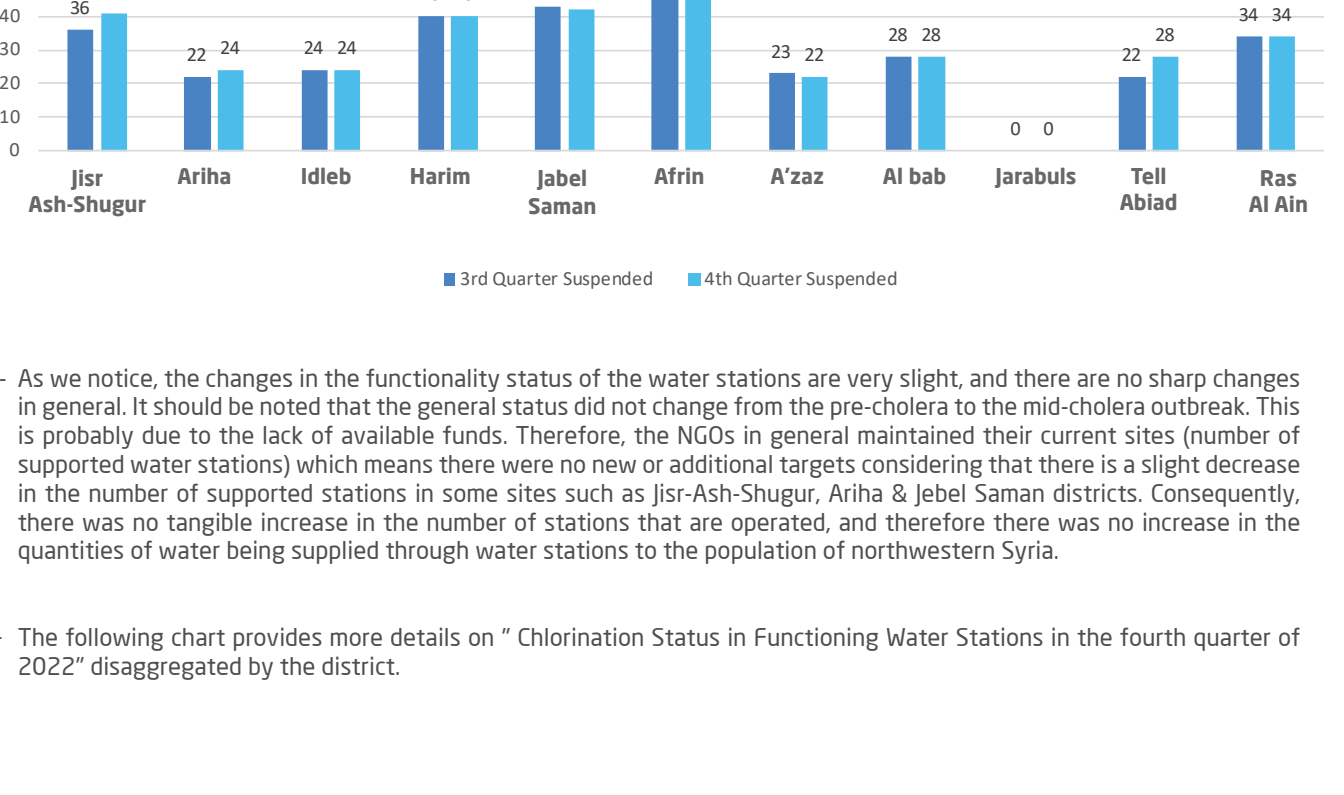
2- The following chart provides more details on "the existence of Cost Recovery System in the fourth quarter of 2022" disaggregated by the district.

Cost Recovery System Existence-4th Quarter



3- The following chart provides a comparison of the per capita share during the four quarters of 2022.

Per Capita Share-Comparison of four quarters 2022

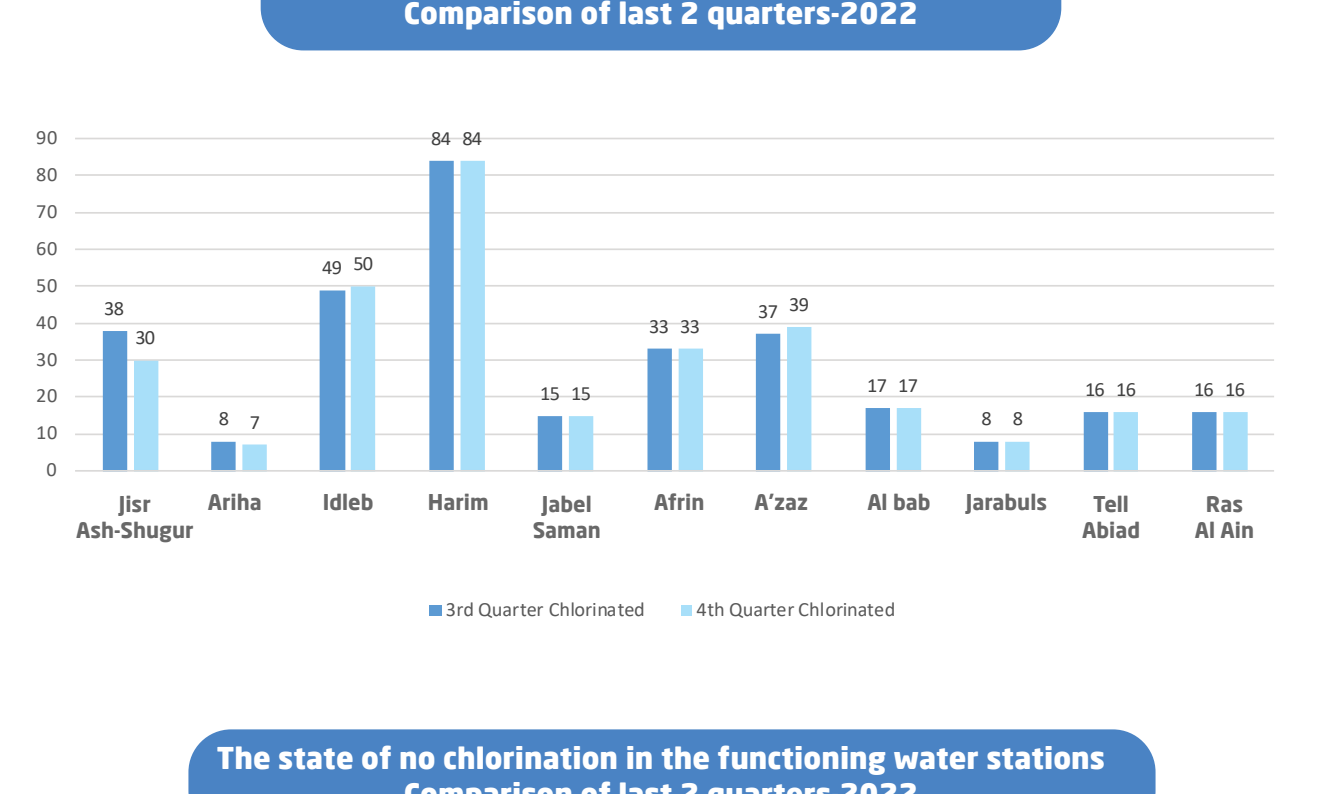


4- As we notice, the figures are around the average and there are no significant deviations between the different quarters except for Jarabulus because two new stations were operated in the second quarter, which contributed to a significant increase in the per capita share.

5- Note: Regarding the cost recovery and Per Capita Share, it should be noted that the figures in the charts are calculated based on the functional water stations in each district during the quarter taking into consideration the daily operating hours of the station, the population number served by the water station (rNAP), the flow of the water station, and the availability of applied cost recovery system.

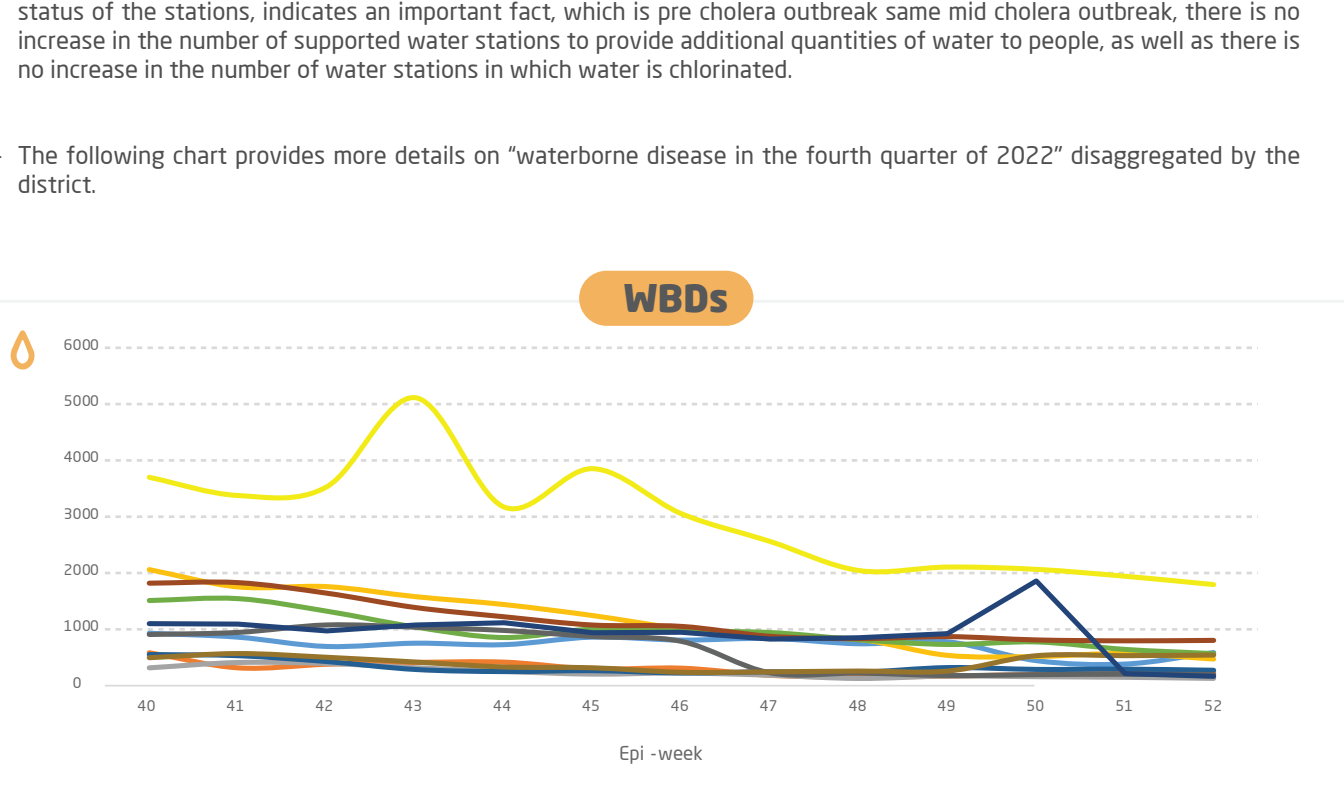
6- The following chart provides more details on "Water Stations Functionality in the fourth quarter of 2022" disaggregated by the district.

Water Station Functionality

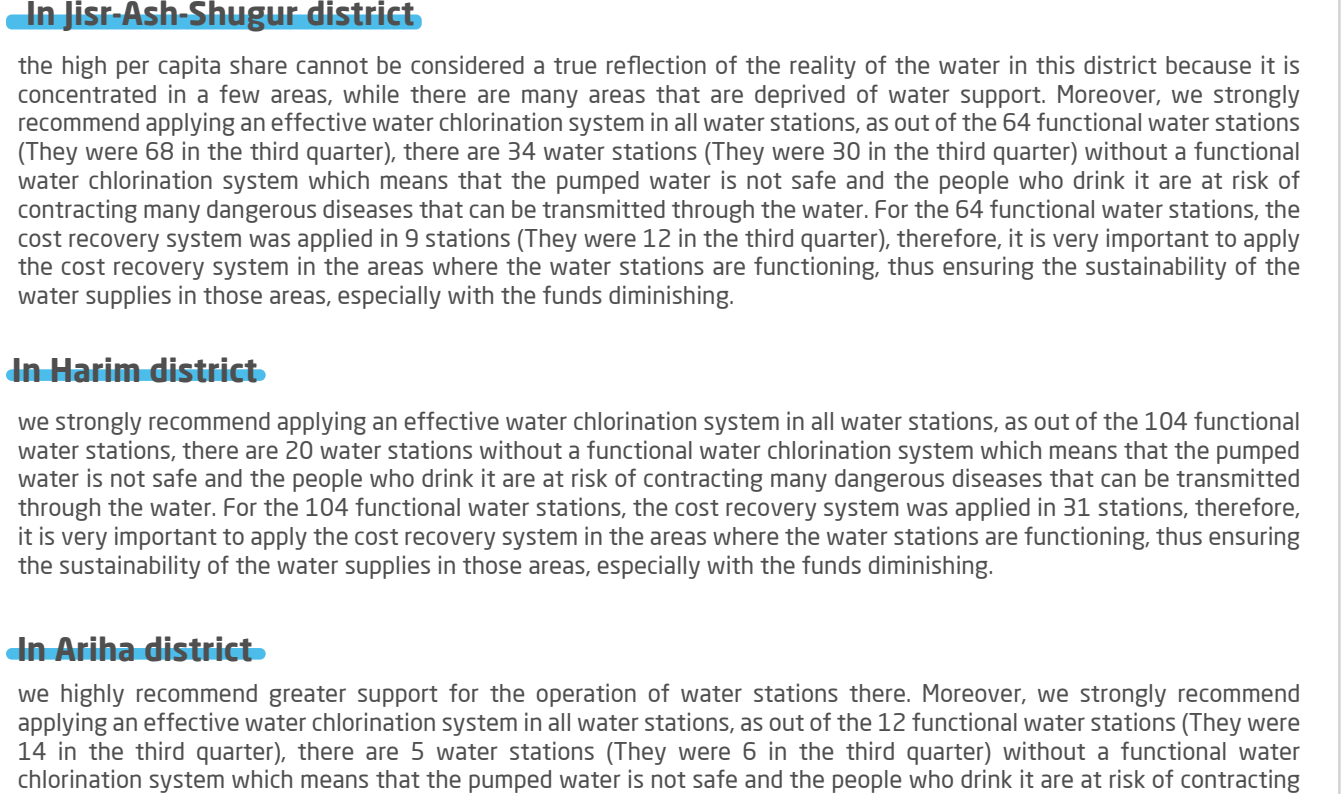


7- The following charts provides a comparison of the water stations' functionality & suspension during the last two quarters of 2022

WATER STATIONS FUNCTIONALITY COMPARISON OF LAST QUARTERS - 2022



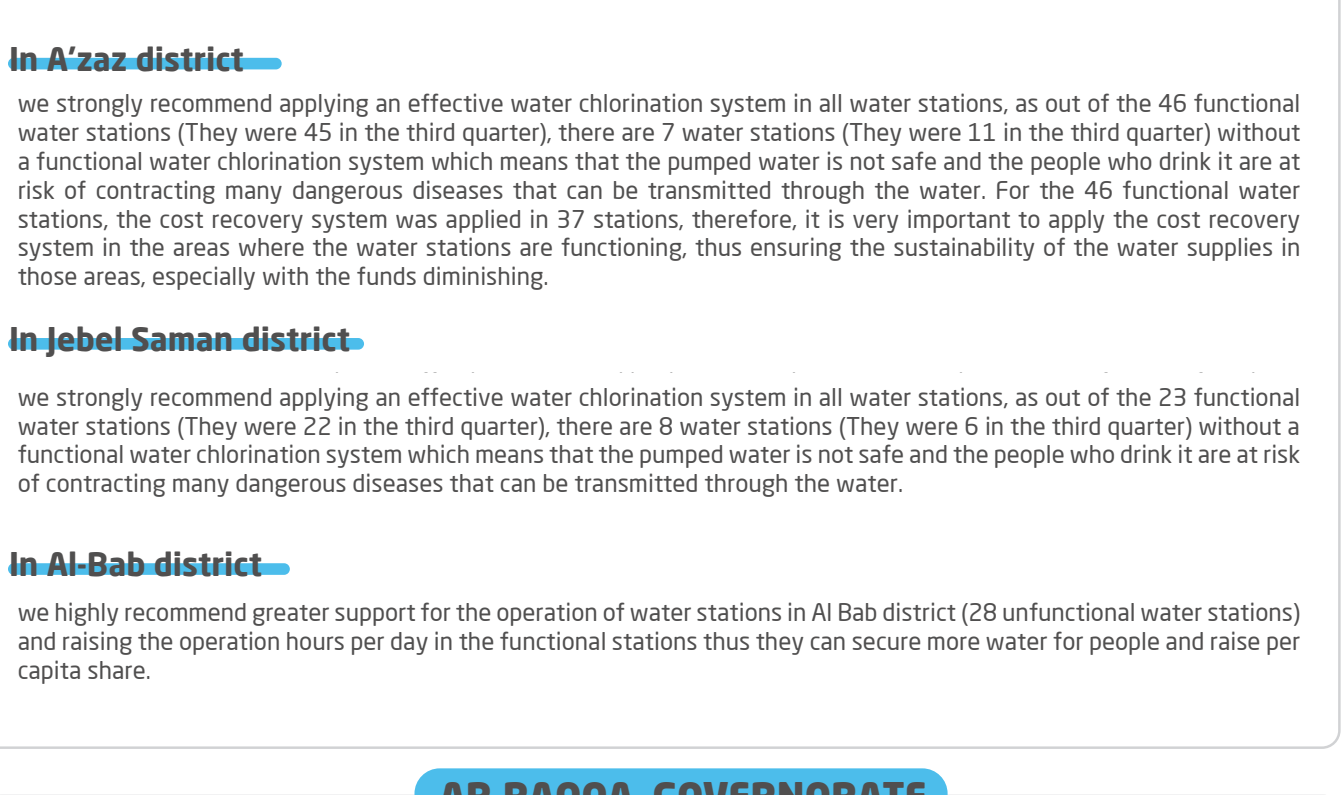
WATER STATIONS FUNCTIONALITY - COMPARISON OF LAST 2 QUARTERS - 2022



8- As we notice, the changes in the functionality status of the water stations are very slight, and there are no sharp changes in general. It should be noted that the general status did not change from the pre-cholera to the mid-cholera outbreak. This is probably due to the lack of available funds. Therefore, the NGOs in general maintained their current sites (number of supported water stations) which means there was no new or additional targets considering that there is a slight decrease in the number of supported stations in some sites such as Jisr-Ash-Shugur, Arriha & Jabel Saman districts. Consequently, there was no tangible increase in the number of stations that are operated, and therefore there was no increase in the quantities of water being supplied through water stations to the population of northwestern Syria.

9- The following chart provides more details on "Chlorination Status in Functioning Water Stations in the fourth quarter of 2022" disaggregated by the district.

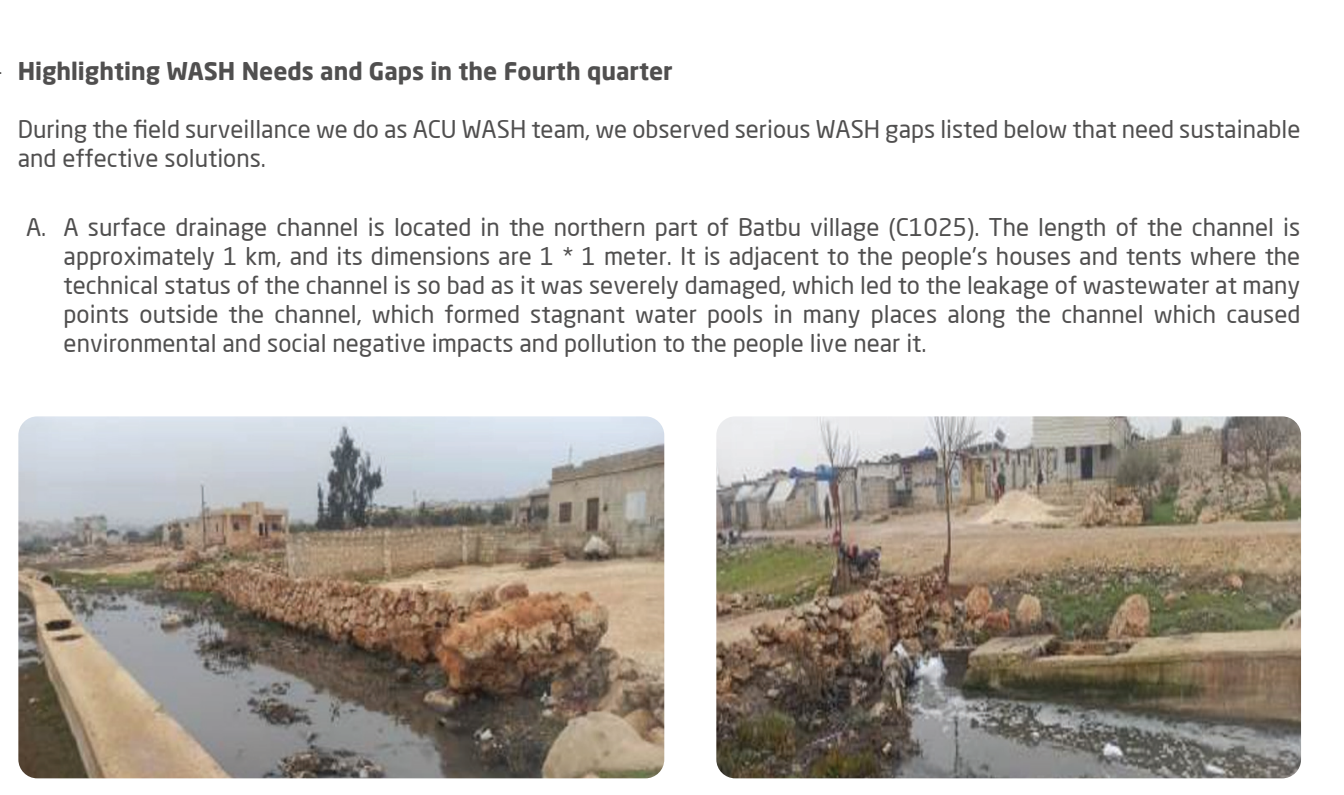
Chlorination Status in Functioning Water Stations



10- Conclusion: There are 75% Water stations in NWS of which 424 (56%) are functional while the rest (44%) are nonfunctional. 67 water stations need operational costs, 55 water station requires light and medium maintenance and 73 stations need complete rehabilitation to be operated. Out of the 424 functional stations, there are 109 stations where water is not chlorinated due to the lack of needed chlorine and chlorination equipment (pumps). Jisr-Ash-Shugur, Ras Al Ain and Harim districts have the highest number of water stations where there is no water chlorination / Chlorination compared to the number of functional stations.

11- The following charts provides a comparison of the Chlorination Status in Functioning Water Stations during the last two quarters of 2022.

Chlorination Status in Functioning Water Stations Comparison of last 2 quarters-2022



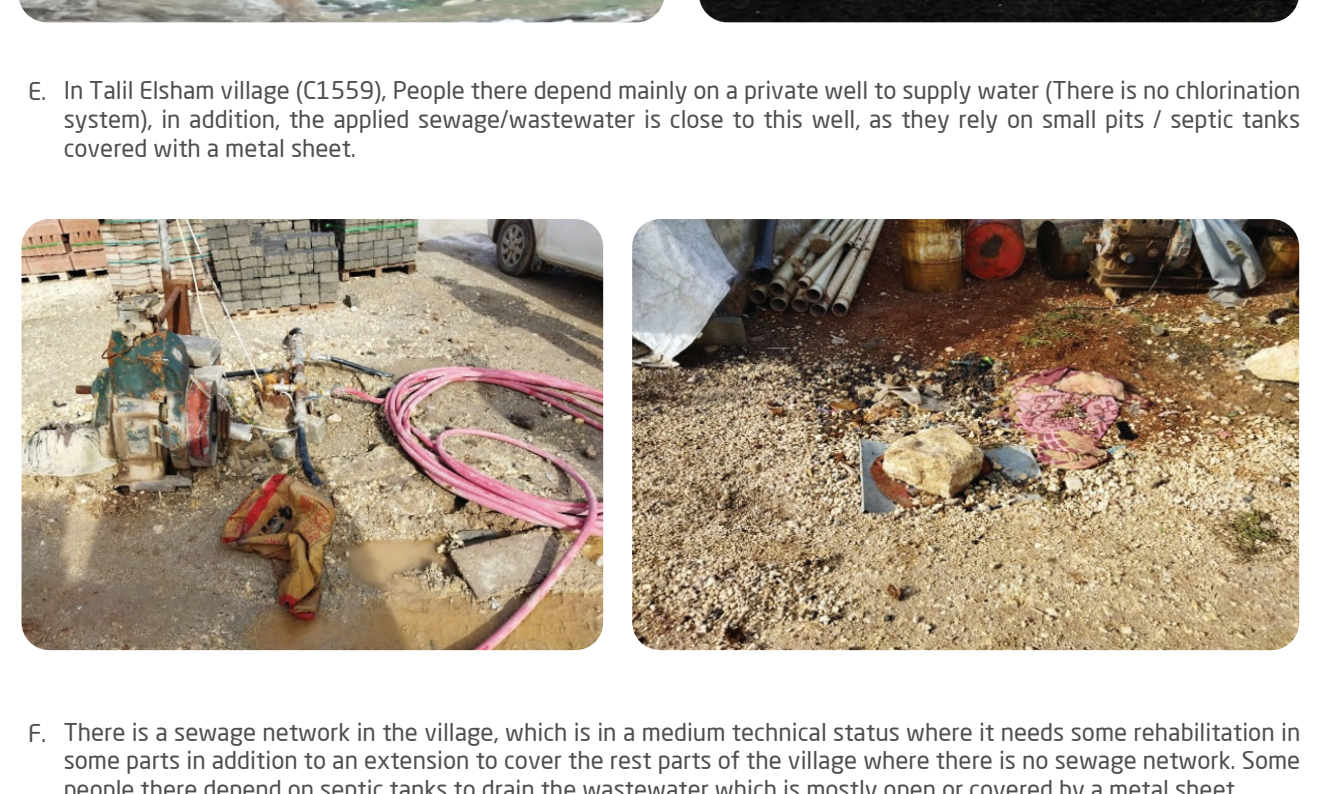
The state of no chlorination in the functioning water stations Comparison of last 2 quarters-2022



12- We notice that there are no significant changes in the Chlorination Status in Functioning Water Stations, as the percentage of stations in which water is chlorinated has not increased notably which means either the situation is stable and has not changed like Afrin, Harim Ras Al Ain or there is a very slight increase in the number of stations where the water is chlorinated like Tell Abiad and Arriha. This reality, in addition to what was previously mentioned about the functionality status of the stations, indicates an important fact, which is pre cholera outbreak same mid cholera outbreak, there is no increase in the number of supported water stations to provide additional quantities of water to people, as well, there is no increase in the number of water stations in which water is chlorinated.

13- The following chart provides more details on "waterborne disease in the fourth quarter of 2022" disaggregated by the district.

WBDS



14- Conclusion: Harim, A'zaz, Jabel Saman and Idleb districts have the highest water-borne diseases proportional morbidity.

15- Water supplies-related recommendation.

IDLEB GOVERNORATE

In Jisr-Ash-Shugur district

The high per capita share cannot be considered a true reflection of the reality of the water in this district because it is concentrated in a few areas, while there are many areas that are deprived of water support. Moreover, we strongly recommend applying an effective water chlorination system in all water stations, as out of the 12 functional water stations (They were 14 in the third quarter), there are 5 water stations (They were 6 in the third quarter) without a functional water chlorination system which means that the pumped water is not safe and the people who drink it are at risk of contracting many dangerous diseases that can be transmitted through the water. For the 64 functional water stations, the cost recovery system was applied in 9 stations (They were 12 in the third quarter), therefore, it is very important to apply the cost recovery system in the areas where the water stations are functioning, thus ensuring the sustainability of the water supplies in those areas, especially with the funds diminishing.

In Harim district

We strongly recommend applying an effective water chlorination system in all water stations, as out of the 104 functional water stations, there are 20 water stations without a functional water chlorination system which means that the pumped water is not safe and the people who drink it are at risk of contracting many dangerous diseases that can be transmitted through the water. For the 104 functional water stations, the cost recovery system was applied in 31 stations, therefore, it is very important to apply the cost recovery system in the areas where the water stations are functioning, thus ensuring the sustainability of the water supplies in those areas, especially with the funds diminishing.

In Arriha district

We highly recommend greater support for the operation of water stations there. Moreover, we strongly recommend applying an effective water chlorination system in all water stations, as out of the 12 functional water stations (They were 14 in the third quarter), there are 5 water stations (They were 6 in the third quarter) without a functional water chlorination system which means that the pumped water is not safe and the people who drink it are at risk of contracting many dangerous diseases that can be transmitted through the water. For the 12 functional water stations (They were 14 in the third quarter), the cost recovery system was applied in 3 stations, therefore, it is very important to apply the cost recovery system in the areas where the water stations are functioning, thus ensuring the sustainability of the water supplies in those areas, especially with the funds diminishing.

In Idleb district

We strongly recommend applying an effective water chlorination system in all water stations, as out of the 57 functional water stations (They were 56 in the third quarter), there are 7 water stations without a functional water chlorination system which means that the pumped water is not safe and the people who drink it are at risk of contracting many dangerous diseases that can be transmitted through the water. For the 57 functional water stations, the cost recovery system was applied in 25 stations, therefore, it is very important to apply the cost recovery system in the areas where the water stations are functioning, thus ensuring the sustainability of the water supplies in those areas, especially with the funds diminishing.

ALEPPO GOVERNORATE

In Afrin district

We highly recommend greater support for the operation of water stations there. Note that these 49 suspended stations contribute to securing water for many people living in refugee communities, as they are today depending on water trucking mainly to secure the necessary water, and this is an additional burden for them, therefore, we recommend supporting them to secure the necessary water.

In A'zaz district

We strongly recommend applying an effective water chlorination system in all water stations, as out of the 46 functional water stations (They were 45 in the third quarter), there are 7 water stations (They were 11 in the third quarter) without a functional water chlorination system which means that the pumped water is not safe and the people who drink it are at risk of contracting many dangerous diseases that can be transmitted through the water. For the 46 functional water stations, the cost recovery system was applied in 37 stations, therefore, it is very important to apply the cost recovery system in the areas where the water stations are functioning, thus ensuring the sustainability of the water supplies in those areas, especially with the funds diminishing.

In Jabel Saman district

We strongly recommend applying an effective water chlorination system in all water stations, as out of the 23 functional water stations (They were 22 in the third quarter), there are 6 water stations (They were 6 in the third quarter) without a functional water chlorination system which means that the pumped water is not safe and the people who drink it are at risk of contracting many dangerous diseases that can be transmitted through the water.

In Al-Bab district

We highly recommend greater support for the operation of water stations in Al Bab district (28 nonfunctional water stations) and raising the operation hours per day in the functional stations thus they can secure more water for people and raise per capita share.

AR-RAQQA GOVERNORATE

In Tell Abiad district

We strongly recommend applying an effective water chlorination system in all water stations, as out of the 21 functional water stations (They were 27 in the third quarter), there are 5 water stations (They were 11 in the third quarter) without a functional water chlorination system which means that the pumped water is not safe and the people who drink it are at risk of contracting many dangerous diseases that can be transmitted through the water. For the 21 functional water stations, the cost recovery system was applied in 1 station, therefore, it is very important to apply the cost recovery system in the areas where the water stations are functioning, thus ensuring the sustainability of the water supplies in those areas, especially with the funds diminishing. Also, we highly recommend greater support for the operation of water stations in Tell Abiad district (28 nonfunctional water stations) and raising the operation hours per day in the functional stations thus they can secure more water for people and raise per capita share.

AL-HASAKEH GOVERNORATE GOVERNORATE

In Ras Al Ain district

We strongly recommend applying an effective water chlorination system in all water stations, as out of the 32 functional water stations (They were 32 in the third quarter), there are 6 water stations (They were 6 in the third quarter) without a functional water chlorination system which means that the pumped water is not safe and the people who drink it are at risk of contracting many dangerous diseases that can be transmitted through the water. For the 32 functional water stations, the cost recovery system wasn't applied in any station, therefore, it is very important to apply the cost recovery system in the areas where the water stations are functioning, thus ensuring the sustainability of the water supplies in those areas, especially with the funds diminishing. Also, we highly recommend greater support for the operation of water stations in Ras Al Ain district (24 nonfunctional water stations) and raising the operation hours per day in the functional stations thus they can secure more water for people and raise per capita share.

17- Highlighting WASH Needs and Gaps in the Fourth quarter

During the field surveillance we do as ACU WASH team, we observed serious WASH gaps listed below that need sustainable and effective solutions.

A. A surface drainage channel is located in the northern part of Babtu village (C1025). The length of the channel is approximately 1 km, and its dimensions are 1 * 1 meter. It is adjacent to the people's houses and tents where the technical status of the channel is so bad as it was severely damaged, which led to the leakage of wastewater at many points outside the channel, which formed stagnant water pools in many places along the channel which caused environmental and social negative impacts and pollution to the people live near it.

B. The sewage network in Deir Siwan in Afrin (C1494) is a very old network and in a bad technical status, as it is an open sewage system that flows into a nearby valley (A tributary of the Afrin River), and most people currently rely on small septic tanks beside the house, which are emptied and drained into the nearby valley. Also, the garbage collection system is very poor, as there is no existing municipal system responsible for the collection and transportation process, thus garbage is left to be collected and thrown on the streets and roads.

C. The main sewage line that transports the wastewater of Tal Elkaramej (C4122), Dana (C4126), Hezreh - Hezri (C4120), Tilaada (C4124), Burdayly (C6593), Sarmada (C4121), and many other camps. It is an old worn-out line and in need of rehabilitation for the part between Sarmada and Burj Elnurra, its diameter is about 70 cm, and the length is about 3 km.

D. The sewage network in Qatmet Efrin (C1524) and Kafr Janna (C1518) is significantly damaged during the previous period, and it needs repair and extension due to the large urban expansion.

E. In Tali Elisham village (C1559), People there depend mainly on a private well to supply water (There is no chlorination system), in addition, the applied sewage/wastewater is close to this well, as they rely on small pits / septic tanks covered with a metal sheet.

F. There is a sewage network in the village, which is in a medium technical status where it needs some rehabilitation in some parts in addition to an extension to cover the rest parts of the village where there is no sewage network. Some people there depend on septic tanks to drain the wastewater which is mostly open or covered by a metal sheet.

G. There is an open line to drain rainwater and wastewater pass at the east part of the village and near the people's houses, as it constitutes a hotbed of pollution and a conducive environment for the growth of insects, mosquitoes and rodents, and harmful animals.

18- Cholera- Related Recommendations

• **Water**
As water is an essential and decisive factor in the transmission of cholera germs, it must be ensured that drinking water is sterilized regardless of its source or delivery way to the local population (The final users of the water) and the calibration of free residual chlorine must be 1 mg/liter at the "water source" and so that it is 0.5 mg/liter at the point of use (house - tents - shop - store - ice factory...). Also, we must work on operating functional water stations for any reason, ensure the sterilization of the pumped water, and provide adequate quantities of water to the population to meet all their basic needs such as drinking, washing, bathing, and cooking.

• **Sanitation**
A quick and effective solution must be found to the problem of random and open sewage drained randomly around villages, towns, population centers, and camps, which has become a real threat to public health and a main source for transmission of many diseases, including cholera, therefore the humanitarian community must think of rapid solutions to prevent the spread of the epidemic and turning points of random drainage of wastewater into hotbeds for disease transmission especially as we are approaching the winter season, which could exacerbate the situation, as cholera could spread on a large scale and reach other places and contaminate other sources of drinking water as a result of mixing it with rainwater. The closure of opened sewage systems and collection pits, especially in the camps is extremely important and must be implemented quickly, also, we must work on treating this contaminated water before it is discharged to rivers and open lands. In addition, immediate action must be taken to treat the wastewater drainage into rivers and lakes or near groundwater sources, accordingly, wastewater treatment plants must be established, thus reducing pollution in that water to the minimum levels that are appropriate for discharging into the rivers, thus the rivers will not turn into a main source of cholera as the case in the Euphrates River. Besides, we must work on preparing an infrastructure to drain rain and prevent floods to reach the camps and overcrowded residential areas.

We must work to prevent the use of untreated wastewater to irrigate crops, especially vegetables that are close to the soil and can be eaten raw thus it becomes a vector source of cholera that can spread rapidly among the local population consequently, establishing wastewater treatment plants for the drainage sites is considered an effective solution to this problem, which can provide safer and more suitable water for irrigation purposes."

For more information please visit the following links

Water Resources Platform/WRP: A technical platform specialized in WASH information management, coordination, and integration between the tracks of humanitarian and stability, includes Syrian NGOs specialized in the WASH sector. The platform is hosted and supported by the Assistance Coordination Unit

Source: * Per capita share ACU | ** ACS Functionality and Cost Recovery System ACU/WASH | ***WBDS ACU/WRP | **** Population WRP

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