UKRAINE

WASH Needs Assessment

An examination of needs relating to water, sanitation, and hygiene in rural and urban Ukraine

January 2023

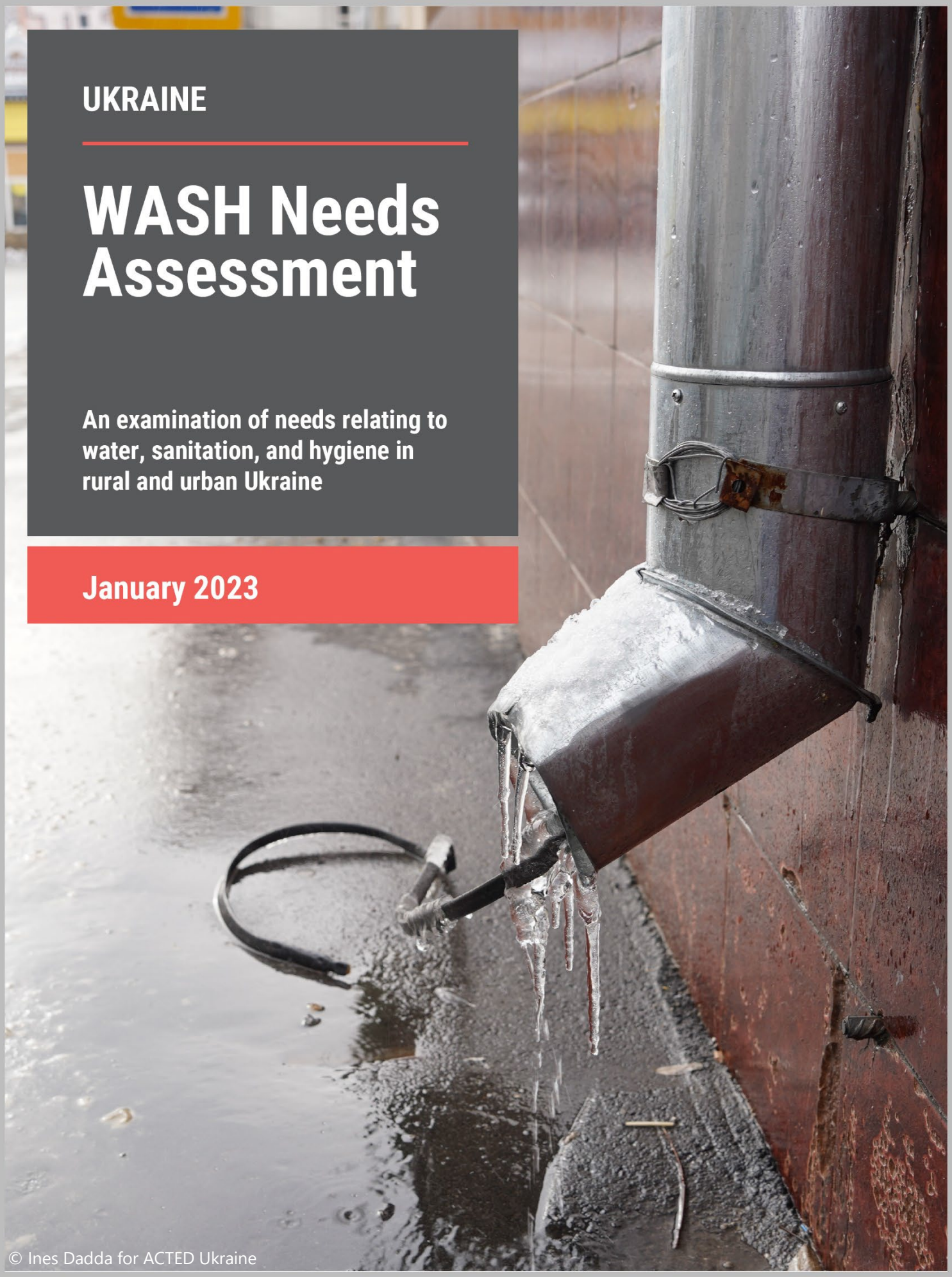

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Photo: A partially frozen pipe in Kharkiv, December 2022. Credit: Ines Dadda for ACTED Ukraine

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SUMMARY

Since the full-scale invasion of Ukraine by Russia on 24 February 2022, Ukrainians have experienced prolonged challenges related to water, sanitation, and hygiene (WASH). By December 2022, the UN stated that half of Ukraine's energy infrastructure had been destroyed[1] leaving millions of people without reliable water for consumption, hygiene, waste management, and heating. Further, particularly vulnerable groups such as older people and people with disabilities face additional challenges related to mobility and socioeconomic status. Influxes of internally displaced people (IDPs) and inflation have put strains on existing WASH resources. The 2023 Ukraine Humanitarian Needs Overview (HNO) estimates that there are 17.6 million people in need across Ukraine, of which 36% are IDPs, 39% are non-displaced (host population) and 25% are returnees. Of the total number of people in need (PIN), 11 million are estimated to be in need of WASH-related assistance.[2]

Using a severity index developed by the WASH Cluster, seven oblasts were chosen for the assessment: Chernihivska, Dnipropetrovska, Kharkivska, Kyivska, Mykolaivska, Vinnytska, and Zaporizka. During December 2022 and January 2023, a total of 2,887 household-level surveys were conducted throughout these oblasts. The sample was stratified to divide rural and urban settlements within each oblast. Household-level data is representative at the oblast level, as well as the two strata within each oblast, with a 95% level of confidence and a 7% margin of error. To complement these household surveys, 42 key informant interviews (KII) took place with local authority members and 42 supplementary interviews with older persons and persons with disabilities as individuals who fall in to one or both of these categories are considered especially vulnerable in terms of WASH. Data was collected both face-to-face and via telephone.

It should be noted that while the household-level data can be considered representative at both the oblast and strata level, certain areas had to be excluded due to inaccessibility, whether this was caused by poor road conditions, concerns about unexploded ordinances (UXOs), and/or proximity to direct conflict. In an effort to reach a larger population, phone interviews were used in areas that could not be physically accessed, but only with individuals in areas with electricity and working phone service could be contacted. Thus, some of the most vulnerable households may have been missed, and this should be taken in to account when reading this report. Further, only part of Zaporizka oblast was under the control of the Government of Ukraine (GoU) at the time of data collection, thus data collection for this oblast can be considered as representative only for the selected raion.

Key Findings

Broadly, lack of electricity seemed to pose the biggest challenge for both households and WASH facilities. At the community level, damage to energy infrastructure has caused problems in pumping and sanitising water at facilities. At the household level, electricity cuts meant a reduced water supply, lack of hot water, and even lack of heating as centralised heating systems in some areas are directly dependent on the water supply.

Despite challenges with electricity, water needs were generally not severe, with 78% of households storing extra water and **only 2% lacking enough water to meet any of their basic needs**, though **13% of households did not have enough water for domestic use** (such as cleaning or laundry). Many households were coping with water shortages by reducing laundry, household cleaning, bathing and handwashing. **Only 40% of households treated their drinking water**. This can be a greater concern in areas where a lack of reliable energy supply for wastewater treatment facilities can mean that pollutants are discharged into surface water bodies, creating potentially contaminated water supplies. Further research around water quality monitoring is needed.

Zaporizka and Mykolaivska oblasts generally reported higher problems with water than the other assessed oblasts. Some of these issues were caused by a heavy reliance on drinking water piped through

[1] Voice of America, UN: Half of Ukraine's Energy Infrastructure Destroyed by Russian Attacks (December 2022).
[2] OCHA, "Ukraine Humanitarian Needs Overview" (December 2022).

outdated and degraded infrastructure. In Mykolaiv city, damage to the central water supply had caused the city to resort to supplying salinised water for technical use, which can cause further damage to pipelines and is not suitable for consumption.

Only 3% of households did not have access to improved sanitation facilities, and 97% used soap when washing their hands. In terms of solid waste management, most communities reported that garbage collection had continued more or less as it had before the escalation. However, in rural Vinnytska, some communities did not have access to any garbage collection system, leading to some issues with the formation of spontaneous landfills.

While the majority of households reported that hygiene items were expensive, and numerous sources confirm that the price of such items has increased, **85% of households found that hygiene items were still affordable.** However, 13% of households could only afford some of the products they needed, and 1% of households could not afford any of the basic items. Incontinence materials were particularly difficult to procure, as 72% of those who used these items stated they could not access them, due both to price and shortages of such items at markets.

Access to hygiene items was of greater concern in **Zaporizka and Kharkivska oblasts, where one in three households could not afford all needed hygiene items**. These needs were slightly more pronounced in rural than in urban areas of those two oblasts. REACH's Joint Market Monitoring Initiative found that the price of standard non-food items were among the highest in the country in Zaporizka.[3] Further, in these two oblasts some households mentioned safety concerns when accessing the market, possibly due to the presence of landmines and continued shelling.

While this assessment could not representatively make conclusions regarding these different populations, **generally WASH needs were found to be quite similar between IDPs outside of collective centres, returnees, and host households.** Findings indicate that IDPs outside of collective centres reported more problems with water quality, while returnees felt the least safe collecting water and slightly more returnee households may have experienced water shortages. IDPs were also most likely to need hygiene items, though around 80% reported they did not have any need in this area and over two-thirds had received donated items. Collective centres were not specifically included in this data collection, but other research suggests that IDPs living in collective centres may generally have higher needs than the rest of the population.[4]

Older people and/or people with disabilities can face additional challenges when it comes to fulfilling basic WASH needs. Mobility issues can make carrying water, accessing markets for hygiene items, and general self-care more difficult, or in some cases impossible. Further, many pensioners expressed that they must spend most of their pensions on medications, leaving insufficient funds for all necessary hygiene items. Those needing specialised medical devices, such as braces for back problems, mentioned that such devices had become quite expensive. Nonetheless, most participants said that they can rely on assistance from family and neighbours, both financially and physically in terms of helping with bathing, laundry and collecting water.

[3] REACH, "Ukraine: Joint Market Monitoring Initiative: Round 6" (September 2022).
[4] REACH, "Ukraine: Collective Site Monitoring: Round 6" (December 2022).

CONTENTS

List of Acronyms

CAA: Conflict-Affected Areas
HNO: Humanitarian Needs Overview
HSM: Humanitarian Situation Monitoring
NGO: Non-Governmental Organisation
IDP: Internally Displaced Person
KII: Key Informant Interview
MSNA: Multi-Sectoral Needs Assessment
UXO: Unexploded Ordinance
WASH: Water, Sanitation, and Hygiene

Geographical Classifications

Oblast: First-level administrative unit
Raion: Second-level administrative unit
Hromada: Third-level administrative unit
Settlement: Fourth-level administrative unit

List of Maps and Figures

INTRODUCTION

Since the full-scale invasion of Ukraine by Russia on 24 February 2022, Ukrainians have experienced prolonged challenges related water, sanitation, and hygiene (WASH). By December 2022, the UN stated that half of Ukraine's energy infrastructure had been destroyed[5] leaving millions of people without reliable water for consumption, hygiene, waste management, and heating. Further, particularly vulnerable groups such as older people and people with disabilities face additional challenges related to mobility and socioeconomic status. IDP influxes and inflation have put strains on existing WASH resources. The 2023 Ukraine Humanitarian Needs Overview (HNO) estimates that there are 17.6 million people in need across Ukraine, of which 36% are IDPs, 39% are non-displaced (host population) and 25% are returnees. Of the total number of people in need (PIN), 11 million are estimated to be in need of WASH-related assistance.[6]

National-level WASH data has not been widely available since the escalation of the war, but some area-based assessments have included WASH components. In Mykolaiv, the city's desalinisation facility and purification plant were destroyed, leaving the population to rely on distribution centres for safe water.[7] In Kharkivska oblast, areas that came back under the control of the Government of Ukraine (GoU) at the beginning of September 2022 faced unstable electricity and presence of mines and unexploded ordinances (UXO), which continued to pose a threat to civilians trying to access non-centralised water sources and aid.[8] In Dnipropetrovska oblast, WASH facilities had been damaged by shelling and were in urgent need of repair.[9]

Together with 43 partners across the country, the WASH Cluster is providing assistance ranging from emergency water supply to hygiene kits to repairs and rehabilitation of facilities.[10] However, there is a lack of data available regarding specific WASH-related needs, additional impact on certain vulnerable groups, and existing coping mechanisms being used by affected populations. In this context, REACH worked closely with the WASH Cluster to develop an assessment aiming to identify the most urgent WASH needs among the assessed populations, what coping mechanisms are in place to adapt to reduced availability of vital WASH resources, and what challenges to accessing WASH services are faced by rural and urban populations.

The assessment contained an additional component examining the WASH needs and coping mechanisms of older people and people with disabilities. The HNO highlights that "Ukraine has the largest percentage of older people affected by conflict in a single country in the world"[11] and suggests older people and people with disabilities in eastern Ukraine have been less likely to flee their homes due to reduced mobility, reluctance to abandon their homes, and lack of economic resources.[12]

This report provides a detailed description of the methodology and why it was chosen, and then outlines the key assessment findings. The first section gives an overview of findings throughout the seven assessed oblasts. A separate section follows for each oblast to give specific findings related to that oblast. A section with a specific information and considerations relating to older people and/or people with disabilities can be found before the conclusion.

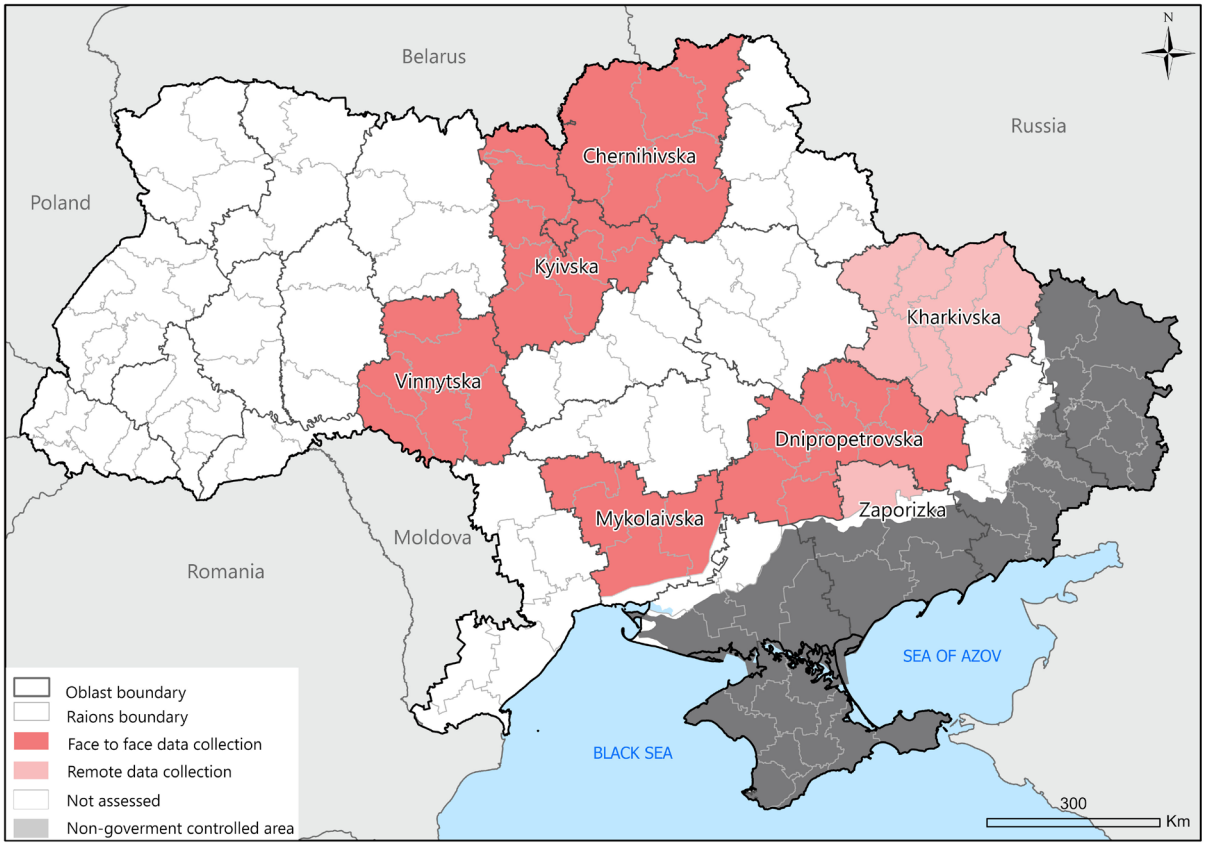
[5] Voice of America, UN: Half of Ukraine's Energy Infrastructure Destroyed by Russian Attacks (December 2022).
[6] OCHA, "Ukraine Humanitarian Needs Overview" (December 2022).
[7] Nonviolent Peaceforce, "Mykolaiv Snapshot: Civilian Protection Needs and Concerns in Ukraine" (July 2022).
[8] Nonviolent Peaceforce, "Kharkiv Snapshot: Civilian Protection Needs and Priorities, September 2022 Update" (September 2022).
[9] REACH, "Area-Based Assessment; Dnipropetrovska Oblast" (August 2022).
[10] OCHA, "Ukraine – WASH Cluster Humanitarian Dashboard" (accessed February 2023).
[11] OCHA, "Ukraine Humanitarian Needs Overview" (December 2022).
[12] Ibid

METHODOLOGY

Geographical scope

Six oblasts were assessed in full: Chernihivska, Kyivska (including Kyiv city), Vinnytska, Kharkivska, Mykolaivska, and Dnipropetrovska. One additional oblast was only partly assessed (Zaporizka) due to the inaccessibility of the remainder of the oblast for reasons related to security and road conditions. These particular oblasts were chosen based on a severity index created by the WASH cluster in consultation with WASH experts in Ukraine.

Map 1: Map of assessed areas



Sampling strategy

This assessment used a mixed-methods approach, consisting of both quantitative and qualitative research methods. All data was collected during December 2022 and January 2023.

Quantitative component

Household-level data was the primary focus of the assessment. Data was stratified to separate rural and urban populations, as WASH needs are suspected to be different for these two populations. A total of 2,887 household surveys were conducted, representative at the oblast level as well as within the two strata, with a **95% confidence level and a 7% margin of error**. Settlements within 30 kilometers of the frontline were excluded for security purposes.

IDPs, returnees, and host populations all had an equal chance of selection in the sampling process, but no representative distinction is possible as such households cannot be identified uniformly across

oblasts. Further, WASH needs were not found to be notably different for these populations, with such needs sometimes being greater for the host population than for IDPs.[13]

In Chernihivska, Dnipropetrovska, Kyivska, Mykolaivska, and Vinnytska, a two-staged stratified random sampling was used, wherein within each oblast, settlements were defined as rural or urban and then within each of these strata, specific points were generated at random. All households within each strata therefore had an equal probability of being selected for interviews. Household-level data was collected in these oblasts using face-to-face interviews in which enumerators travelled to the selected houses and performed interviews in person. A total of 2,064 interviews were collected using this method. Kharkivska and Zaporizka were not physically accessible for reasons relating to security and road conditions, thus a method of random phone dialing was used in line with the two-stage stratification method used for household interviews. A total of 823 interviews were collected using this method.

Method of Interview	Oblast	Rural Interviews	Urban Interviews
Face-to-Face	Chernihivska	198	207
	Dnipropetrovska	216	219
	Kyivska	194	205
	Mykolaivska	201	228
	Vinnytska	194	202
Phone	Kharkivska	196	202
	Zaporizka	198	217

An additional quantitative component involved purposively sampled key informant interviews (KII) in order to complement the representative data. KIIs were carried out with local authorities or WASH experts. Three interviews were done per strata, thus KII data should be considered indicative rather than representative. A total of 42 KI interviews were completed, all via phone.

Qualitative component

In order to insure that especially vulnerable groups were included in the data collection, purposive qualitative interviews were conducted with older people and people with disabilities. These two groups were chosen as they can have some of the highest barriers to accessing aid though in some of the most severely affected regions, up to 79% are in need of WASH-related support.[14] In total, 42 qualitative interviews were done with older people and people with disabilities. The data collected serves as a supplementary component to the quantitative data and should be considered as indicative and not representative.

Analysis

Representative household-level data was weighted based on population size per strata and analysed comparatively between oblasts, between rural and urban households throughout the assessed oblasts, and then between rural and urban households within each oblast. Key informant interviews with local authorities or WASH experts were analysed to provide a settlement-level picture of WASH needs, while findings from qualitative interviews with older people and/or people with disabilities were used to identify specific WASH needs that had not been fully addressed in the household sample. Data from the Multi-Sectoral Needs Assessment (MSNA)[15] and the Humanitarian Situation Monitoring (HSM)[16] as well as other situational reports were used to triangulate findings.

[13] REACH, "Area-Based Assessment; Dnipropetrovska Oblast" (August 2022).
[14] Help Age International, "Eastern Ukraine: The needs of older people" (March 2022).
[15] REACH, Ukraine Resource Center.
[16] Ibid

Challenges and Limitations

It should be noted while the household-level data can be considered representative at both the oblast and strata level, certain areas had to be excluded due to inaccessibility, whether this was caused by poor road conditions, concerns about unexploded ordinances (UXOs), and/or proximity to direct conflict. In an effort to reach a larger population, phone interviews were used in areas that could not be physically accessed, but **only with households with electricity and working phone service could be contacted**. Thus, **some of the most vulnerable households may have been missed**, and this should be taken in to account when reading this report. Further, only part of Zaporizka oblast was under the control of the Government of Ukraine (GoU) at the time of data collection, thus data collection for this oblast can be considered as representative only for the selected raion.

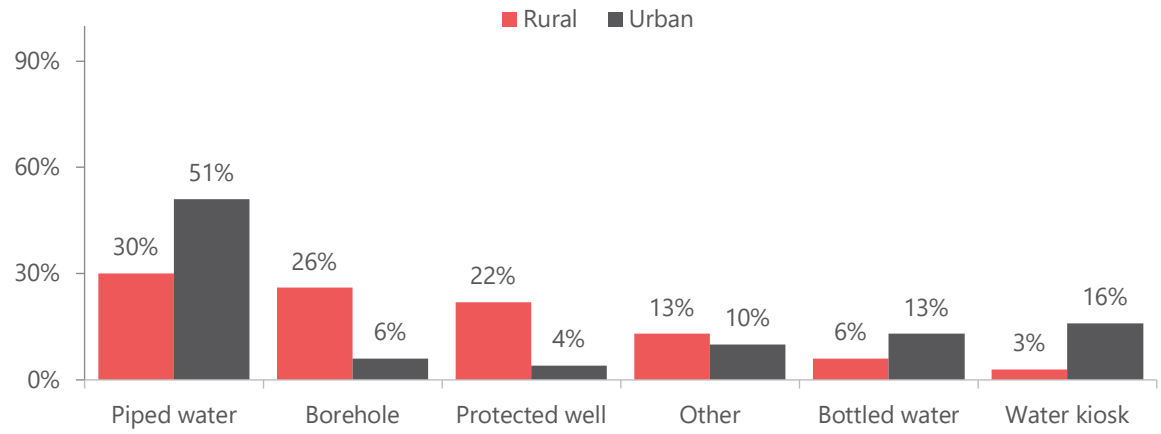
FINDINGS

Overall Findings

a) Water

Overall, the most frequently used water sources, for both technical water and drinking water, included water piped into the home (76%) and/or water from a borehole (19%), with piped water more common in urban areas and water from a borehole more common in rural areas, especially rural parts of Kyivska, Chernihivska, and Dnipropetrovska. Of the assessed population, 45% reported that piped water was their main source of drinking water, and of that percentage, just under half treated the water before consumption, most commonly by boiling or using a water purification filter (Figure 1).

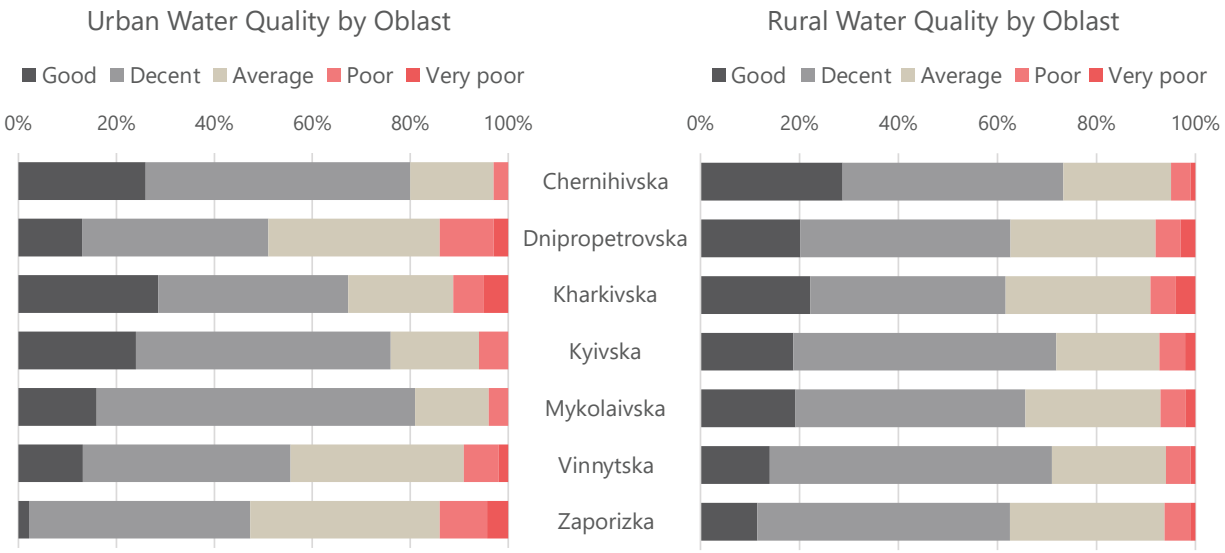
Figure 1: Main Source of Drinking Water Reported by Settlement Type[17]



In 2020, WHO and UNICEF found that 89% of Ukrainians had access to safely managed drinking water.[18] However, since February 2022, **17% of the households in the assessed oblasts reported that the quality of water had decreased.** In both rural and urban areas, **40% of households reported regularly treating their drinking water**, with 60% of those households boiling their water before drinking. A higher proportion of households treated their drinking water among those using tap water (53%), piped water (49%), and boreholes (45%), while a lower proportion reported doing so among those using protected wells (33%), water kiosks (31%), and bottled water (29%). Less than 10% of households described their water quality as poor or very poor. Problems with the water quality included strange color (16%), strange smell (11%), and muddy water (11%). Less favorable water quality was reported in urban areas, especially in Dnipropetrovska, Kharkivska, Vinnytska and Zaporizka (Figure 2).

[17] Other sources of drinking water include public taps/standpipes, tanker trucks and natural springs.
[18] JMP (washdata.org) "Safely managed" drinking water is defined as "drinking water from an improved water source that is accessible on premises, available when needed and free from faecal and priority chemical contamination."

Figure 2: Water Quality Ratings by Location Type



Only 2% of households stated they did not have enough water to meet any of their basic needs, though **13% of households did not have enough water for domestic use** (such as cleaning or laundry). Domestic water shortages were much more frequently reported in Zaporizka (over 30%) and Mykolaivska (over 15%). Households in Zaporizka, urban Mykolaivska, and rural Kharkivska were also more likely to experience insufficient water for drinking, cooking, and personal hygiene. Overall, 90% of households felt safe going to collect water and only 2% needed more than 30 minutes to fetch water. In Kharkivska and Zaporizka oblasts, however, only about 80% of households felt safe collecting water, likely due to the presence of landmines and continued shelling.

In total, two thirds of the households said they had experienced at least one water shortage since the escalation of the war on 24 February 2022. Daily water shortages were reported by over half of participants in rural Kyivska, rural Chernihivska, and rural Vinnytska, and by over one third of participants in Mykolaivska and urban Kyivska. The most frequently used methods for coping with water shortages included storing extra water (78%), reducing laundry (20%), reducing household cleaning (17%), and reducing bathing and handwashing (11%).

b) Sanitation and Solid Waste Management

In 2020, WHO and UNICEF found that 2% of households throughout Ukraine used limited sanitation facilities, and less than 1% were using unimproved sanitation facilities.[19] The findings from this assessment indicate that these percentages have not much changed. Throughout the assessed oblasts, 97% of households have improved sanitation facilities.[20] In urban areas, only 1% of households do not have access to improved facilities, while 7% of rural households do not use improved facilities. The most common type of toilets were flush toilets piped to a drain inside the home (57%), flush toilets piped to a septic tank (23%), and pit latrines with a slab (7%).

A lack of reliable energy supply for wastewater treatment facilities can mean that pollutants are discharged into surface water bodies, creating contaminated water supplies. Higher than normal levels

[19] JMP (washdata.org) Limited sanitation facilities are defined by JMP as "improved facilities shared between two or more households" and unimproved facilities are "pit latrines without a slab or platform, hanging latrines or bucket latrines."
[20] Improved sanitation facilities include flush toilets piped to a sewage system, drainage channel, or septic tank, compost toilets, and pit latrines with slabs and platforms. Unimproved sanitation facilities include ventilated pit latrines, open pit latrines, buckets, and lack of any facility.

of physical and chemical contaminants have been found in some surface water bodies.[21] This is especially concerning as less than half of assessed households reported treating their drinking water.

The majority of the assessed households had private laundry inside their homes (89%), while 10% did laundry by hand. Since the escalation of the war, **78% of households reported facing challenges in doing laundry**, primarily due to electricity and water cuts. Such issues also posed challenges for bathing, though only **46% reported facing challenges to bathe**, as many, especially in rural areas, were able to heat water on a gas or wood stove for bathing when they did not have electricity.

Repair work in Mykolaiv, February 2023. Credit: Viktoriia Borysevych

In terms of solid waste management, most communities reported that garbage was regularly collected by the municipality, while others had garbage taken to specific collection points. Though some communities experienced a decrease in garbage collection after the escalation, the majority reported that garbage collection had continued as normal, though collection services did not always serve the whole community.

c) Hygiene

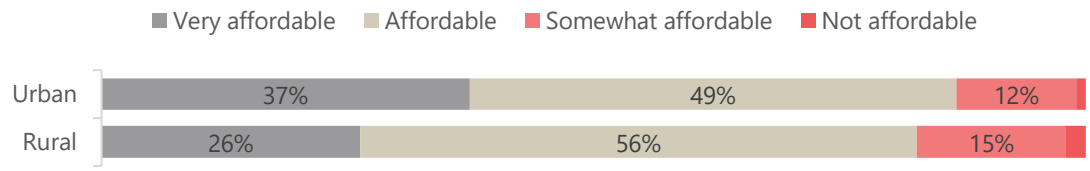
Despite an increase in the price of basic hygiene items,[22] hygiene-related concerns were minimal. Of the assessed population, 92% reported that they were not in need of any hygiene items, though 13% of households struggled to afford the items, and 1% of households could not afford any hygiene items. Among the 8% of households that expressed difficulties in accessing hygiene items, 80% cited cost as the main barrier. Slightly more households had trouble accessing hygiene items in rural areas than in urban ones (Figure 3). In total, 23% of households had received donated hygiene items at least one time.

Among older and/or disabled people, problems with accessing hygiene items can be exacerbated. During qualitative interviews, it was reported that in some cases, new shipments of hygiene items were sold so quickly that those with mobility challenges were not always able to get to the market before they were sold out. In other cases, pensioners reported that they must spend most of their pensions on medications, so they did not always have enough left for hygiene items. Specialised medical devices for those with disabilities were also difficult to afford for those who needed them.

Of the assessed households, 6% had at least one household member who used incontinence materials. While 28% said they could access what they needed, the remainder mentioned disposable pads, reusable adult or infant diapers, and mattress protectors as top needs, with 71% saying these materials were too expensive and 10% saying they were not available at the market. During individual interviews with older people and/or people with disabilities, all participants who used incontinence materials reported difficulty in accessing them due to both shortages at markets and high prices. Key informants throughout many of the assessed oblasts also reported shortages of adult diapers. Additional needs for hypoallergenic products and specialised hygiene kits for children with disabilities were also mentioned.

[21] OCHA, "Ukraine Humanitarian Needs Overview" (December 2022).
[22] REACH, "Joint Market Monitoring Initiative (JMMI); Round 10" (January 2023).

Figure 3: Affordability of Hygiene Items since 24 February 2022[23]



d) Heating

Heating was included as a component of this research as centralised heating systems rely on the water supply to fill heating networks, thus "disruptions in the water supply mean disruption in heating."[24]

The majority of urban households (63%) had access to district heating, while only 13% of households in rural areas had such access. In rural households, heating primarily came from private heating systems (61%) or fireplaces (30%), with gas (49%) and wood (45%) as the main fuel sources. Urban households not connected to district heating used private systems (31%) or fireplaces (4%), with gas (77%) and wood (14%) as the primary fuel sources. For all households using wood or other fuel, increase in fuel prices could be a concern.

Only about half of key informants reported that all of the district heating systems were functioning. Some local authority figures mentioned that pipelines for the transportation of heat had been damaged in their settlements, though some had already been repaired. Further, damage to boiler houses was reported in settlements in Chernihivska, Kharkivska, Vinnytska, and Zaporizka.

Chernihivska Oblast

According to the World Bank, Chernihivska oblast was one of the six oblasts most affected by damages.[25] As of August 2022, an estimated $570 million was needed for recovery and reconstruction of water and sanitation infrastructure, second in cost only to Luhanska oblast.[26] Key informants throughout Chernihivska reported direct damage to water pipelines, WASH facilities, and wells and boreholes, as well as indirect damage to WASH systems due to damaged energy infrastructure. All key informants indicated that these damages had caused disruption to the water supply and sewage function, with several in both rural and urban areas mentioning that these services were still disrupted at the time of the interview. Price increases and shortages in hygiene items such as adult and infant diapers and laundry detergent had also occurred throughout the oblast.

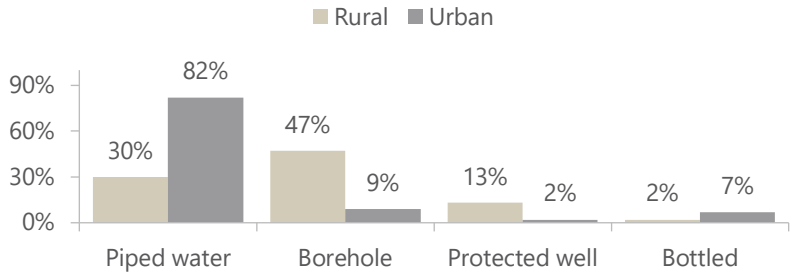
a) Water

The most common sources of water in Chernihivska included water piped into homes, used by 89% of urban households and 29% of rural households, and/or boreholes, used by 10% of urban households and 60% of rural households. Additionally, 24% of rural households reported receiving water from protected wells.

Drinking water sources were similar to the sources used for technical water (Figure 4). Among those who used piped water or boreholes as their main water sources, about half reported treating their drinking water before consumption.

[23] These categories were defined as follows: Very affordable means no concern about ability to afford items; affordable means items can be procured but they are expensive; somewhat affordable means not all needed products can be procured; and not affordable means none of the needed items can be procured.
[24] OCHA, "Ukraine Humanitarian Needs Overview" (December 2022).
[25] World Bank, "Ukraine Rapid Damage and Needs Assessment" (August 2022)
[26] Ibid.

Figure 4: Main Source of Drinking Water Reported in Chernihivska by Settlement Type



In rural Chernihivska, 11% of households reported problems with water quality such as strange taste, strange smell, and strange color. In urban areas, 14% found similar problems including muddy water, strange color, and strange taste. Less than 5% would rate their water quality as poor or very poor.

Since 24 February 2022, 81% of urban households had experienced at least one water shortage, but 79% typically had water between 18-24 hours a day. By contrast, 62% of rural households reported daily water shortages with only 40% of rural households having water for 18-24 hours a day. Just around half of rural households stored water in case of a shortage, and the majority of those had only one water storage system for technical and drinking water combined, with not all reporting that they treat their drinking water before consumption. In one rural settlement, a key informant mentioned that the water supply system needed reconstruction work. In one urban settlement, a key informant stated a need for water tanks and generators.

b) Sanitation and Solid Waste Management

In urban Chernihivska, 100% of households had access to improved sanitation facilities, [27] while 90% of rural households used improved facilities with 10% using unimproved types of pit latrines. The most common type of toilets were flush toilets piped to a septic tank (49% in urban areas and 43% in rural areas), flush toilets piped to a drain inside the home (35% in urban areas), and compost toilets (9% in urban areas and 32% in rural areas).

The majority of the urban households had private laundry inside their homes (86%), while 13% did laundry by hand. In rural areas, 70% had private laundry while 29% did laundry by hand. Since the escalation of the war, over 80% of households reported facing challenges in doing laundry, primarily due to electricity and water cuts. Such issues also posed challenges for bathing, though in urban areas two thirds of households did not have any trouble bathing.

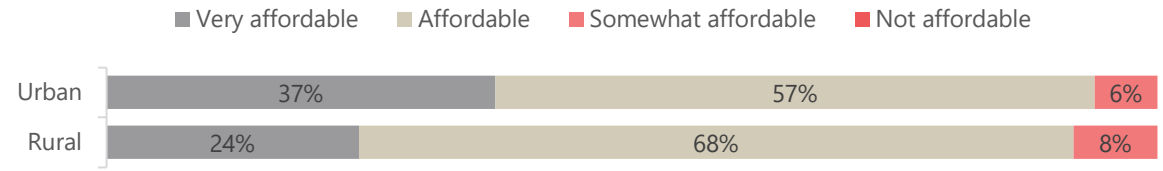
In terms of solid waste management, most garbage was collected by the municipality on a daily basis. The frequency of garbage collection had either remained the same as before the escalation, or increased. One key informant mentioned some issues in removing solid waste from construction as there was a lack of transport capacity for such materials.

c) Hygiene

In Chernihivska oblast, 95% of rural households and 93% of urban households reported not needing any hygiene items. Among the remaining households, urban areas had slightly higher needs, with cost being the only cited barrier. Despite this, the majority of households said they could afford what they needed, though some had to go without certain products (Figure 5). The most needed items were water containers and shampoo (5% of urban households), and shampoo and soap (3% of rural households). Over a quarter of households in rural and urban areas had received donated hygiene items since 24 February 2022.

[27] For a list of improved and unimproved sanitation facilities, see footnote 20.

Figure 5: Affordability of Hygiene Items in Chernihivska



Among households with at least one member who used incontinence materials, a higher than average number in both urban and rural areas reported difficulty in accessing what they needed, mainly due to the high cost. The most needed items included disposable pads, adult diapers, mattress protectors, and commode chairs. Among those who menstruate, 8% in rural areas and 17% in urban areas reported high costs making it difficult for them to afford disposable pads and tampons.

d) Heating

In urban Chernihivska, 38% of households had access to district heating. The majority (57%) reported using private heating systems, mostly fueled by gas. In rural Chernihivska, only 15% of households had access to district heating, while others relied on private heating fueled by wood or gas, or wood-burning fireplaces. Key informants reported that not all of the district heating system was functioning in many settlements, both rural and urban, with up to half of the pipelines for heat transportation having been damaged since the escalation. Damage to boiler houses was also reported.

Dnipropetrovska Oblast

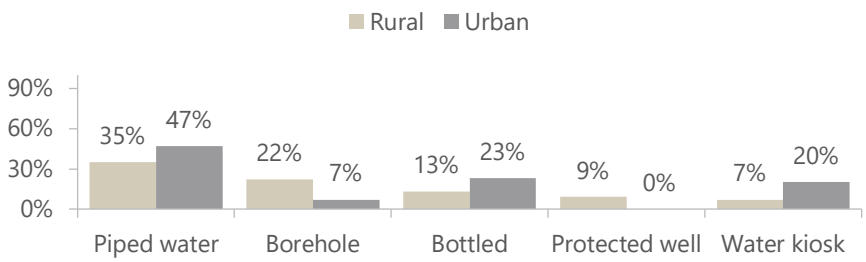
Key informants in Dnipropetrovska oblast reported direct damage to water pipelines, as well as indirect damage to WASH systems due to damaged energy infrastructure. In rural areas, outdated equipment was also an issue. All KIs indicated that these damages had caused disruption to the water supply and sewage function. In Hubynykha, Piatykhatky, and Dnipro, KIs said these disruptions had lasted for more than five months. No major shortages in hygiene items were reported, though the cost of most products had increased.

a) Water

The most common sources of water in Dnipropetrovska included water piped into homes, which was used by 91% of urban households and 46% of rural households, and/or boreholes, used by 40% of rural households. Additionally, 21% of rural households reported receiving water from protected wells.

Drinking water sources, however, included bottled water and water kiosks, especially in urban areas (Figure 6). Over half of those in urban areas treated their drinking water, especially those with piped water. In rural areas, slightly under half of households treated their drinking water, but those whose main source of drinking water was piped water or boreholes were more likely to treat the water than those using protected wells.

Figure 6: Main Source of Drinking Water Reported in Dnipropetrovska by Settlement Type



Among the 14% in urban areas that considered their water quality to be poor or very poor, the majority treated their drinking water or bought bottled water. The top complaints on the water quality in urban areas included strange color (26%), muddy water (18%), and strange smell (18%).

In urban areas, 79% of households had experienced at least one water shortage since 24 February 2022, with 7% reporting daily shortages. In rural areas, just over half reported at least one water shortage, but 21% reported daily shortages. Over two-thirds of households in the oblast reported that they store water regularly, though just under half did not have separate storage for drinking water. Multiple key informants in rural Dnipropetrovska stated that in order to provide uninterrupted water supply, generators were needed. In one urban settlement, the KI mentioned the need for reconstruction of the water supply system's pump-filter station.

b) Sanitation and Solid Waste Management

In urban Dnipropetrovska, 96% of households had access to improved sanitation facilities,[28] while 79% of rural households used improved facilities with 21% using unimproved types of pit latrine. The most common type of toilets were flush piped to a drain inside the home (60% in urban areas), flush toilets piped to a septic tank (29% in urban areas and 45% in rural areas), and ventilated pit latrines (17% in rural areas).

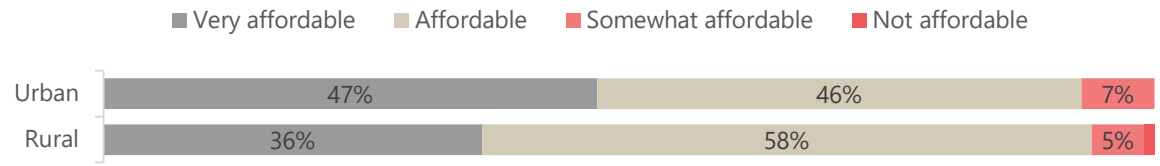
The majority of the urban households had private laundry inside their homes (95%), while 4% did laundry by hand. In rural areas, 86% had private laundry while 13% did laundry by hand. Since the escalation of the war, 66% of households reported facing challenges in doing laundry, primarily due to electricity and water cuts. Such issues also posed challenges for bathing in around one third of households.

In terms of solid waste management, most garbage was taken to a collection point, though some rural communities may not have access to any garbage collection system at all. The frequency of garbage collection had remained the same as before the escalation.

c) Hygiene

In Dnipropetrovska oblast, 95% of rural households and 98% of urban households reported not needing any hygiene items. Among the remaining households, rural areas had slightly higher needs, with cost, distance to the market, and availability of the times being the biggest barriers. Despite this, the majority of households said they could afford what they needed, though some had to go without certain products (Figure 7). The most needed items were shampoo, laundry soap, toothpaste and soap. Less than one fifth of households in rural and urban areas had received donated hygiene items since 24 February 2022.

Figure 7: Affordability of Hygiene Items in Dnipropetrovska



Among households with at least one member who used incontinence materials, around two thirds in both urban and rural areas did not have any trouble accessing what they needed. The remaining third needed disposable pads, plastic pants, and/or reusable adult or child diapers. Cost was the main barrier. Among those who menstruate, 9% in rural areas and 6% in urban areas reported high costs making it difficult for them to afford disposable pads and tampons.

[28] For a list of improved and unimproved sanitation facilities, see footnote 20.

d) Heating

In urban Dnipropetrovska, 63% of households had access to district heating. Other households reported using private heating systems, mostly fueled by gas. In rural Dnipropetrovska, only 22% of households had access to district heating, while others rely on private heating fueled by wood or gas, or wood-burning fireplaces. Key informants report that not all of the district heating system was functioning in many settlements, both rural and urban, with some of the pipelines for heat transportation having been damaged since the escalation.

Kharkivska Oblast

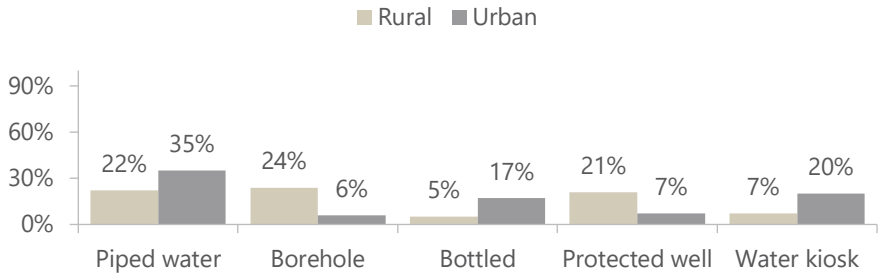
According to the World Bank, Kharkivska oblast was one of the three most heavily damaged oblasts, with the destruction of a major hydroelectric power center causing widespread water supply issues across Kharkivska, Donetska and Luhanska oblasts.[29] As of June 2022, an estimated $133 million was needed for recovery and reconstruction of water and sanitation infrastructure alone.[30] Key informants reported direct damage to water pipelines and WASH facilities, as well as indirect damage to WASH systems due to damaged energy infrastructure. All key informants indicated that these damages had caused disruption to the water supply and sewage function, with a few having been disrupted for more than five months. While some KIs did not indicate any shortages in hygiene items, other reported that items such as adult diapers, laundry detergent, menstrual hygiene materials, and shampoo had been hard to access, and prices for most items had increased.

a) Water

The water supply in newly accessible areas of Kharkivska has been heavily impacted by damage to infrastructure which has caused shortages in water, especially in drinking water. The most common sources of water in Kharkivska included water piped into homes, used by 86% of urban households and 35% of rural households, boreholes, used by 31% of rural households, and water kiosks, used by 31% of urban households. Additionally, 29% of rural households reported receiving water from protected wells.

Drinking water sources varied between piped water, boreholes, protected wells, and water kiosks or bottled water (Figure 8). Only 39% in urban areas and 44% in rural areas reported treating their drinking water before consumption, with urban households more likely to treat piped water than rural households.

Figure 8: Main Source of Drinking Water Reported in Kharkivska by Settlement Type



Around one quarter of households in Kharkivska reported that water quality has decreased since 24 February 2022, with top complaints in rural areas including muddy water, strange taste, and formation of limescale or sediment. In urban areas, top complaints included strange color and smell, and muddy water.

[29] World Bank, "Ukraine Rapid Damage and Needs Assessment" (August 2022)
[30] Ibid

Shortages in water supply since the escalation were reported by 55% of rural households and 77% of urban households. In rural households, 6% reported not having enough water to meet any of their basic needs, which was the highest percentage of all assessed oblasts. To cope with lack of water, households were reducing laundry and household cleaning. Kharkivska also had the highest percentage of households that did not feel safe going to collect water (21% in urban areas and 26% in rural areas). This could be partially attributed to the presence of landmines and UXOs in liberated areas.

b) Sanitation and Solid Waste Management

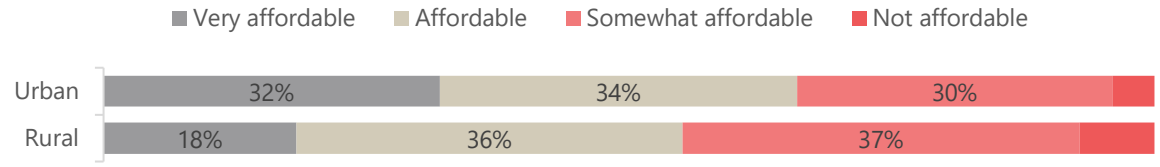
In urban Kharkivska, 98% of households had access to improved sanitation facilities,[31] while 89% of rural households used improved facilities with 11% using unimproved types of pit latrine. The most common type of toilets were flush piped to a drain inside the home (78% in urban areas and 17% in rural areas), flush toilets piped to a septic tank (11% in urban areas and 44% in rural areas), and pit latrines with slabs (22% in rural areas).

The majority of the urban households had private laundry inside their homes (92%), while 8% did laundry by hand. In rural areas, 83% had private laundry while 16% did laundry by hand. Since the escalation of the war, over 70% of households reported facing challenges in doing laundry, primarily due to electricity and water cuts. Such issues also posed challenges for bathing in around half of households.

c) Hygiene

In Kharkivska oblast, 70% of rural households and 88% of urban households reported not needing any hygiene items. With 44% of rural households unable to afford all the hygiene items they need, rural Kharkivska presented the most unmet needs of all assessed areas. While the majority cited cost as the main barrier, a significant number also mentioned that going to the market was not safe (15% in urban areas and 9% in rural areas). Of the assessed oblasts, safety concerns regarding the market were only mentioned in Kharkivska and Zaporizka. Kharkivska also reported the highest percentage of households who said they could not afford any of the hygiene products they needed (Figure 9) with shampoo, water containers, and soap topping the list of requested products. However, around half of households in rural and urban areas had received donated hygiene items since 24 February 2022, though not all households that could not afford hygiene items had received donations.

Figure 9: Affordability of Hygiene Items in Kharkivska



Among households with at least one member who used incontinence materials, around 80% in urban areas and 86% in rural areas could not access what they needed. The most requested items were disposable pads, though nearly all other types of incontinence materials were also mentioned. Cost was the main barrier, while distance to the market, safety concerns when going to the market, and items not being available at the market were also reported. Those who menstruate had similar problems and barriers to accessing menstruation products.

d) Heating

In urban Kharkivska, 68% of households had access to district heating. Other households reported using private heating systems, mostly fueled by gas. In rural Kharkivska, only 15% of households had access to district heating, while others relied on private heating fueled by wood or gas, or wood-burning fireplaces. Key informants reported that not all of the district heating system was functioning in many

[31] For a list of improved and unimproved sanitation facilities, see footnote 20.

settlements with some of the pipelines for heat transportation having been damaged since the escalation. In Kharkiv city, on 16 December 2022 officials reported that the city did not have electricity, heating, or water at all.[32]

Kyivska Oblast

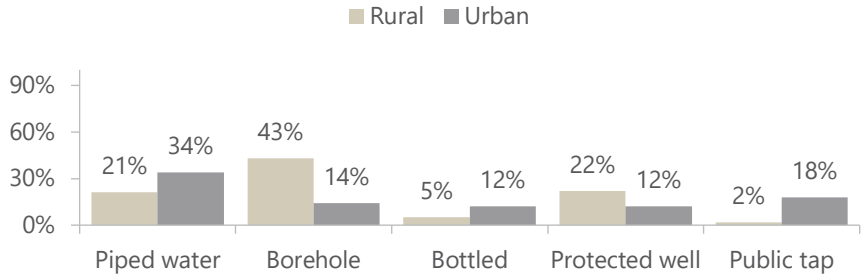
According to the World Bank, Kyivska oblast was among the six most damaged oblasts.[33] An estimated $270 million is needed for recovery and reconstruction of water and sanitation infrastructure throughout the oblast.[34] Key informants in urban areas reported indirect damage to WASH systems due to damaged energy infrastructure. Specifically, after major attacks in October 2022, large-scale problems with water had occurred in Kyiv city, but the issues were resolved quickly. While some KIs did not indicate any shortages in hygiene items, others reported that items such as adult diapers, laundry detergent, menstrual hygiene materials, and shampoo had been hard to access, and prices for most items had increased. In the city of Boiarka, just outside the city of Kyiv, one KI stated that "it was impossible to buy food, never mind hygiene items."

a) Water

The most common sources of water in Kyivska included water piped into homes, used by 82% of urban households and 32% of rural households, boreholes (24% urban, 47% rural), bottled water (24% urban) and protected wells (31% rural). Notably, 18% of the urban population also used public taps, a much higher percentage than most of the other oblasts assessed.

In urban Kyivska, the most common sources for drinking water were piped water and public taps (Figure 10). Only 36% of urban households treated their drinking water. In rural Kyivska, 42% of households treated their drinking water, which comes mainly from boreholes, protected wells, or piped water.

Figure 10: Main Source of Drinking Water Reported in Kyivska by Settlement Type



Around 6% of households in both rural and urban areas described their water quality as poor or very poor with the most common complaints including strange color and muddy water.

Households have mitigated the water shortages by storing water, especially in urban areas compared to rural areas, although water shortages are more common in the later. In urban areas, 88% of households stored water in case of a shortage and 41% reported daily water shortages. In rural areas, 69% of households store water, though 77% reported daily shortages. However, nearly all households in Kyivska said they had enough water to meet their basic needs.

[32] Data Friendly Space, "Ukrainian Crisis: Situational Analysis" (January 2023).
[33] World Bank, "Ukraine Rapid Damage and Needs Assessment" (August 2022)
[34] Ibid

b) Sanitation and Solid Waste Management

In urban Kyivska, 98% of households had access to improved sanitation facilities,[35] while 96% of rural households used improved facilities with 4% using unimproved types of pit latrine. The most common type of toilets were flush piped to a drain inside the home (62% in urban areas and 33% in rural areas), flush toilets piped to a septic tank (18% in urban areas and 35% in rural areas), and pit latrines with slabs (16% in rural areas).

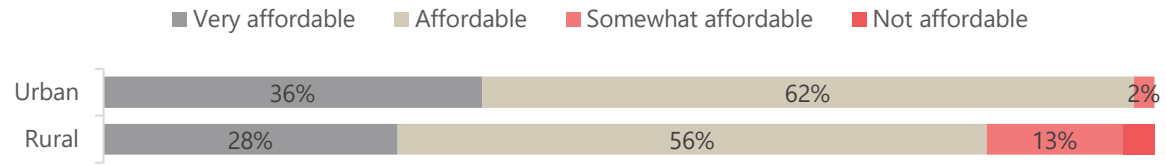
The majority of the urban households had private laundry inside their homes (96%), while 4% did laundry by hand. In rural areas, 90% had private laundry while 9% did laundry by hand. Since the escalation of the war, 100% of urban households and 93% of rural households reported facing challenges in doing laundry, primarily due to electricity and water cuts. Such issues also posed challenges for bathing in under half of households.

In terms of solid waste management, most garbage was collected by the municipality, though some rural communities may not have access to any garbage collection system at all. The frequency of garbage collection had either remained the same as before the escalation or decreased.

c) Hygiene

In Kyivska oblast, 95% of rural households and 98% of urban households reported not needing any hygiene items. Cost was the main barrier for those who could not access all they needed. In rural areas, cost was more of a barrier than in urban areas (Figure 11). Around a fifth of households in rural and urban areas had received donated hygiene items since 24 February 2022.

Figure 11: Affordability of Hygiene Items in Kyivska



Among households with at least one member who used incontinence materials, around 50% in urban areas and 80% in rural areas could not access what they needed. The most requested items were disposable pads and handheld urine containers. Cost and items not being available at the market were the main barriers. There were no issues reported accessing menstrual materials in urban areas, but 11% of rural households cited cost as a barrier to accessing the products they needed. One key informant explained that after the invasion of Kyivska oblast, there was a rush to buy hygiene products, creating a shortage in supermarkets.

d) Heating

In urban Kyivska, 40% of households had access to district heating. Other households reported using private heating systems, mostly fueled by gas. In rural Kyivska, only 6% of households had access to district heating, while others relied on private heating fueled by wood or gas, or wood-burning fireplaces.

Mykolaivska Oblast

According to the HNO, the humanitarian situation in Mykolaivska oblast is "dire."[36] Access to water is one of the biggest concerns. "The main pipe supplying water to Mykolaiv has been damaged, forcing

[35] For a list of improved and unimproved sanitation facilities, see footnote 20.
[36] OCHA, "Ukraine Humanitarian Needs Overview 2023" (December 2022)

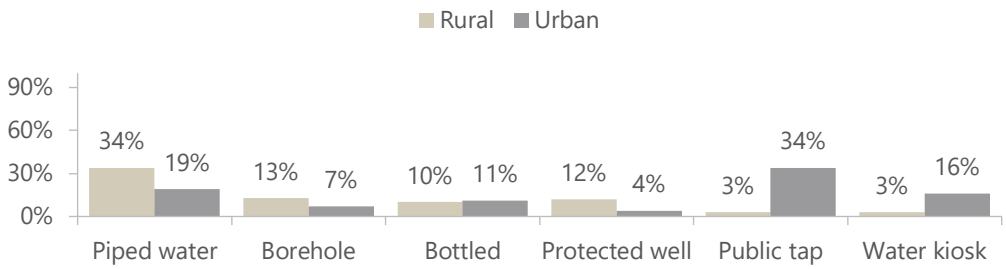
the city to rely on substitute water from the river which has high salinity. This makes the water unsuitable for human consumption and has resulted in the degradation of metal pipes, including those of central heating systems."[37] One key informant in Mykolaiv confirmed these issues, adding that people had to collect technical water from public standpipes and purchase bottled drinking water as they could no longer rely on piped water.

a) Water

The most common sources of water in Mykolaivska included water piped into homes, used by 86% of urban households and 48% of rural households, boreholes (17% rural), tanker trucks (21% urban) and public taps (21% rural).

In urban Mykolaivska, especially Mykolaiv city where pipelines have been damaged, households were not able to rely on piped water for their drinking water supply. Therefore, many households reported using public taps or water kiosks (Figure 12). In rural Mykolaivska, some households were still able to use piped water for consumption, with about half of these households treating the water. Those who received water from boreholes are less likely to treat their water.

Figure 12: Main Source of Drinking Water Reported in Mykolaivska by Settlement Type



Due to water supply disruption in urban Mykolaivska, households had to collect technical water from public standpipes and purchase drinking water. Thus, it generally took people the longest time to collect water compared to other assessed oblasts, with 40% needing between 16 and 30 minutes to collect water. However, 95% reported that they feel safe when doing so. Many older people and/or people with disabilities expressed that collecting water in this way was difficult and that they relied on neighbors or family members to help in bringing water for them. 85% of households had experienced at least one shortage in their water supply, with 5% stating that they did not have enough water to meet any of their basic needs. Households were coping with water shortages by reducing laundry and household cleaning. Additionally, 90% store water, and 76% of those have separate water stored for drinking.

While overall, only 4% of urban households described the water quality as poor or very poor, 58% said that water quality has decreased since 24 February 2022. The most common complaints included salty water, strange smell, and strange taste. In the city of Mykolaiv, damage to the main water pipeline had forced the city to instead supply salty water for technical use. One key informant specified a need for a water purification system. Among rural households, 7% found the water quality to be poor or very poor, but only 4% felt the water quality had declined since the escalation.


Water collection in Mykolaiv. Credit: Viktoriia Borysevych

b) Sanitation and Solid Waste Management

In urban Mykolaivska, 99% of households had access to improved sanitation facilities,[38] while 98% of rural households used improved facilities. The most common type of toilets were flush piped to a drain

[37] Ibid

[38] For a list of improved and unimproved sanitation facilities, see footnote 20.

inside the home (78% in urban areas), flush toilets piped to a septic tank (15% in urban areas and 33% in rural areas), and pit latrines with slabs (31% in rural areas).

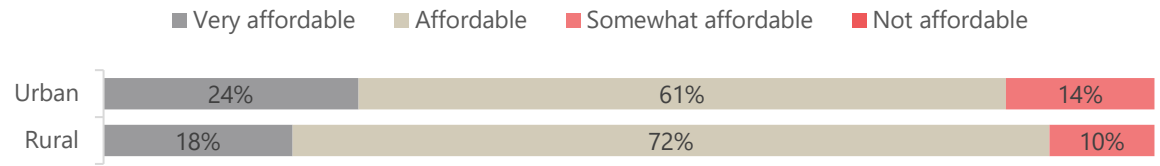
The majority of the urban households had private laundry inside their homes (94%), while 6% did laundry by hand. In rural areas, 88% had private laundry while 12% did laundry by hand. Since the escalation of the war, over 80% of households reported facing challenges in doing laundry, primarily due to electricity and water cuts, though in Mykolaiv city, the salty water could also pose a challenge as it can be hard on washing machines and clothing. Such issues also posed challenges for bathing in over half of urban households. Rural households faced less issues with bathing, with only 4% reporting water cuts, though just under one fifth mentioned problems with hot water and lack of shower/bathing space.

In terms of solid waste management, in rural areas most garbage was taken to a collection point, though some rural communities may not have access to any garbage collection system at all. In urban areas, garbage was collected by the municipality with the majority of the community being served. The frequency of garbage collection had remained the same as before the escalation in most areas, and has increased in some rural areas

c) Hygiene

In Mykolaivska oblast, 96% of rural and urban households reported not needing any hygiene items. Cost was the main barrier for those who could not access all they needed (Figure 13). Around a fifth of households in rural and urban areas had received donated hygiene items since 24 February 2022.

Figure 13: Affordability of Hygiene Items in Mykolaivska



Households members from vulnerable groups, such as women and older persons, stressed that specific hygiene items like incontinence material or menstrual products were expensive and difficult to access. Among households with at least one member who used incontinence materials, around 75% in urban areas and 60% in rural areas could not access what they needed. Most types of incontinence materials were needed and cost was the main barrier.

d) Heating

In urban Mykolaivska, 61% of households had access to district heating. Other households reported using private heating systems, mostly fueled by gas. In rural Mykolaivska, only 5% of households had access to district heating and most relied on private heating fueled by wood or gas, or wood-burning fireplaces. While key informants did not report any currently damaged heat transportation pipelines or other major damages to heating infrastructure, multiple expressed the need for generators to power facilities like boiler houses.

Vinnytska Oblast

Generally, Vinnytska oblast has not been as heavily damaged as the other oblasts assessed in this study. Still, damage to energy infrastructure has caused some disruption in water supply and centralized sewage. Key informants in urban areas reported a need for generators to ensure the continuity of these services. While some KIs did not indicate any shortages in hygiene items, other reported that items such

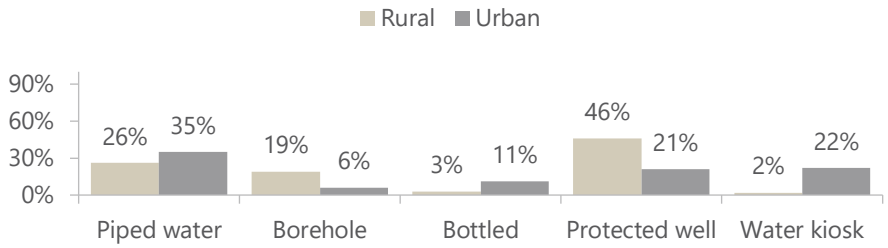
as adult and infant diapers, laundry detergent, menstrual hygiene materials, and shampoo had been hard to access, and prices for most items had increased.

a) Water

The most common sources of water in Vinnytska included water piped into homes, used by 82% of urban households and 51% of rural households, protected wells (52% rural and 23% urban), boreholes (26% rural) and water kiosks (16% rural).

In Vinnytska, around one third of households treated their drinking water before consumption, with urban households mainly receiving drinking water piped to their homes or from water kiosks, and rural households primarily using protected wells or piped water (Figure 14).

Figure 14: Main Source of Drinking Water Reported in Vinnytska by Settlement Type



In urban areas, 9% of households considered the water to be of poor or very poor quality. In rural areas, only 8% of households felt that their water quality had decreased since 24 February 2022, mostly citing formation of limescale or sediment and muddy water as the main concerns.

Water shortages were reported by half the urban population and 39% of the rural population. Over two thirds of the urban population stored water in case of shortages, with nearly all able to meet their basic needs with the water they have. In rural areas, 46% of households stored water, and 4% said they did not have enough water to meet any of their basic needs. Multiple key informants in urban Vinnytska cited the need for generators in order to ensure regular access to the water supply.

b) Sanitation and Solid Waste Management

In urban Vinnytska, 100% of households had access to improved sanitation facilities,[39] while 98% of rural households used improved facilities. The most common type of toilets were flush piped to a drain inside the home (60% in urban areas), flush toilets piped to a septic tank (26% in urban areas and 29% in rural areas), and compost toilets (37% in rural areas).

The majority of the urban households had private laundry inside their homes (93%), while 6% did laundry by hand. In rural areas, 82% had private laundry while 18% did laundry by hand. Since the escalation of the war, over 80% of households reported facing challenges in doing laundry, primarily due to electricity and water cuts. Such issues also posed challenges for bathing in half of rural households and one third of urban households.

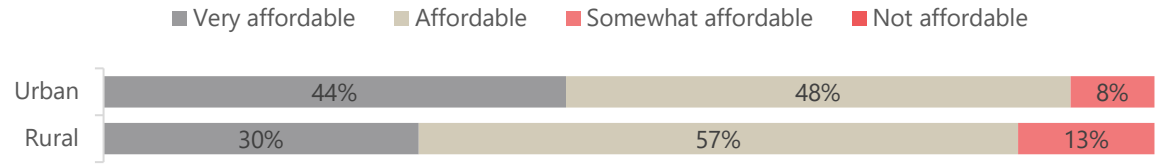
In terms of solid waste management, most garbage was collected by the municipality, while some was taken to a collection point. Some rural communities may not have access to any garbage collection system at all. One key informant mentioned that in some private residential rural areas, there are some issues with the formation of spontaneous landfills. The frequency of garbage collection had remained the same as before the escalation.

[39] For a list of improved and unimproved sanitation facilities, see footnote 20.

c) Hygiene

In Vinnytska oblast, nearly all rural and urban households reported not needing any hygiene items. More households in rural areas reported that hygiene items were difficult to afford (Figure 15). Around a tenth of households in rural and urban areas had received donated hygiene items since 24 February 2022.

Figure 15: Affordability of Hygiene Items in Vinnytska



Among households with at least on member who used incontinence materials, around 30% in urban areas and 60% in rural areas could not access what they needed. Disposable pads and mattress protectors were the most requested items. Among those who menstruate, only 2% were not able to access the materials they needed.

d) Heating

In urban Vinnytska, 38% of households had access to district heating. Other households reported using private heating systems, mostly fueled by gas. In rural Vinnytska, only 10% of households had access to district heating and relied on private heating fueled by wood or gas, or wood-burning fireplaces. Key informants did not report damages to heating pipelines, though some mentioned that boiler houses had sustained damage, though some had since been repaired.

Zaporizka Oblast[40]

According to the World Bank, Zaporizka oblast was among the six most damaged oblasts.[41] An estimated $97 million is needed for recovery and reconstruction of water and sanitation infrastructure. Key informants throughout Zaporizka reported direct damage to water pipelines and WASH facilities, as well as indirect damage to WASH systems due to damaged energy infrastructure. Further, in one settlement, damaged roads and safety concerns prevented water trucks from accessing households. All key informants indicated that these damages had caused disruption to the water supply and sewage function, with some in urban areas mentioning that these services were still disrupted at the time of the interview. Price increases and shortages in hygiene items such as adult and infant diapers and laundry detergent had also occurred throughout the oblast.

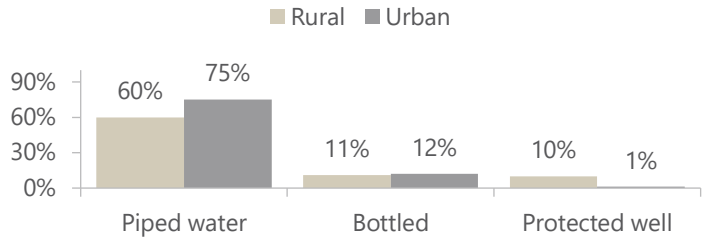
a) Water

The most common sources of water in Zaporizka included water piped into homes, used by 91% of urban households and 68% of rural households, bottled water (24% urban and 35% rural) and boreholes (18% rural).

Less than one third of households in Zaporizka treated their water before consumption, the lowest percentage among assessed oblasts. Also unlike other oblasts, water piped to homes was the primary source of drinking water for both urban and rural households (Figure 16).

[40] Please note that only the government-controlled part of the oblast could be assessed, so findings are representative only for this part of the oblast. See Map 1 for more details.
[41] World Bank, "Ukraine Rapid Damage and Needs Assessment" (August 2022)

Figure 16: Main Source of Drinking Water Reported in Zaporizka by Settlement Type



In urban areas, 13% of households found the water quality to be poor or very poor. Problems included strange smell and color. Zaporizka had the second highest percentage of households that did not feel safe collecting water (23% of rural households and 20% of urban households). This point was illustrated by a key informant in the city of Huliaipole, near the frontline, who stated there were only two functioning wells in the settlement as the others were not safely accessible due to regular shelling. To cope, a water truck brought drinking water and households were collecting rain water for technical use. In another settlement, there were only two vehicles that could distribute water and they were not able to supply the whole settlement as only 15% of the wells were functioning.

Two thirds of households had experienced at least one water shortage since 24 February 2022, and over 70% reported storing water. However, compared to other oblasts, fewer households reported that they could meet all their basic needs with the water they have, and concerningly, the most commonly mentioned method for coping with a lack of water was to reduce the use of water for drinking and/or cooking.

b) Sanitation and Solid Waste Management

In Zaporizka, 96% of households in both rural and urban areas had access to improved sanitation facilities.[42] The most common type of toilets were flush piped to a drain inside the home (70% in urban areas and 40% in rural areas) and flush toilets piped to a septic tank (16% in urban areas and 36% in rural areas).

The majority of the urban households had private laundry inside their homes (88%), while 10% did laundry by hand. In rural areas, 86% had private laundry while 13% did laundry by hand. Over 80% of households reported facing challenges in doing laundry, primarily due to electricity and water cuts. Such issues also posed challenges for bathing in over half of households.

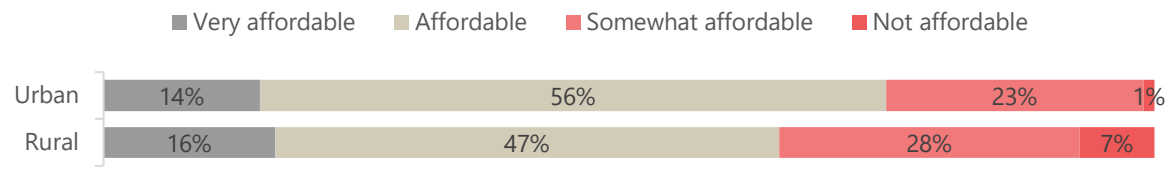
In terms of solid waste management, key informants in Zaporizka reported the most varied types of disposal compared with the other assessed oblasts. In rural areas, garbage was either collected by the municipality or collected by a private company or NGO. In urban areas, garbage was collected by the municipality, taken to a collection point, or burned by households themselves.

c) Hygiene

In Zaporizka oblast, 79% of rural households and 78% of urban households reported not needing any hygiene items. With 35% of rural households unable to afford all the hygiene items they needed (Figure 17), rural Zaporizka presented the most unmet needs after rural Kharkivska. While the majority cited cost as the main barrier, a significant number also mentioned that going to the market was not safe (8% in urban areas and 14% in rural areas). Of the assessed oblasts, safety concerns regarding the market were only mentioned in Kharkivska and Zaporizka. Rural households in Zaporizka reported the highest percentage of households who said they could not afford any of the hygiene products they needed with shampoo, water containers, soap and toothpaste topping the list of requested products. Around half of households in rural areas and a fifth in urban areas had received donated hygiene items since 24 February 2022, though not all households that could not afford hygiene items had received donations.

[42] For a list of improved and unimproved sanitation facilities, see footnote 20.

Figure 17: Affordability of Hygiene Items in Zaporizka



Among households with at least on member who used incontinence materials, around 87% in urban areas and 77% in rural areas could not access what they needed. The most requested items were disposable pads, though nearly all other types of incontinence materials were also mentioned. Cost was the main barrier, though 23% of rural households also said that going to the market was dangerous. Those who menstruate also noted that products were expensive.

d) Heating

In urban Zaporizka, 61% of households had access to district heating. Other households reported using private heating systems, mostly fueled by gas. In rural Zaporizka, only 27% of households had access to district heating and the rest relied on private heating fueled by wood or gas, or wood-burning fireplaces. Key informants reported that not all of the district heating system was functioning in many settlements with some of the pipelines for heat transportation having been damaged since the escalation. Boiler houses had also sustained damages in some urban settlements and were not yet repaired.

Special Focus on Older People and People with Disabilities

Over one-third of households interviewed had at least one member that was at least 60 years old and/or had a disability and/or was chronically ill. The HNO highlights that "Ukraine has the largest percentage of older people affected by conflict in a single country in the world"[43] and suggests older people and people with disabilities in eastern Ukraine have been less likely to flee their homes due to reduced mobility, reluctance to abandon their homes, and lack of economic resources.[44]

In qualitative interviews conducted with 42 participants throughout the seven assessed oblasts, some needs specific to this population were identified. Particularly, **many pensioners expressed that they must spend most of their pensions on medications, leaving little for hygiene or other essential items.** Additionally, hypoallergenic products are harder to access, and specialised medical devices such as back braces have become more expensive. Materials for incontinence, such as adult diapers, were the most requested item among those who need them. Such materials, in smaller sizes, are also needed for children with disabilities.

Those with mobility challenges may also face some related barriers to accessing markets. One participant in rural Zaporizka explained that when a new shipment of supplies becomes available at the market, they tend to be sold out quickly, meaning those with difficulty in getting to the market in time may not be able to find what they need. **Delivering items directly to homes was suggested by a few participants as a helpful solution to these barriers.**

While participants in this research mostly had family or neighbors who could help with daily tasks such as collecting water and bringing necessary hygiene supplies, it should be noted that not all older people and/or people with disabilities have such a support system. For example, one participant in her 80s was living alone far from her family. She was mobility impaired and in constant need of incontinence materials like adult diapers and hygiene items as she could neither afford the products nor physically go to a market to obtain them. While such supplies might have been previously provided by hospitals or social services, this is not always an option for everyone. Many older people and/or people with disabilities in rural areas may also rely on village councils to help provide for basic needs, but one anecdotal report flagged cases of nepotism and stated that in some cases, councils can be corrupted, meaning households without connections may be less likely to be included on lists for assistance distribution.

Despite these challenges, this population has shown great resilience. One older man, who was home-bound after suffering three heart attacks, said he was able to tolerate the difficulties he faced as "the most important thing is that our guys [the military] are alive." Nearly all participants said they stored water in case of shortages, that they could heat water on a gas stove for bathing if necessary, and that they had stocked up on hygiene items or could borrow from neighbors.

> I force myself to get up, and I go and do [what I need to do]. That's what I try to do. Because who else can I count on? You have to take care of yourself, that's it.
>
> - Retired doctor, Zaporizka

[43] OCHA, "Ukraine Humanitarian Needs Overview" (December 2022).
[44] Ibid

CONCLUSION

With an estimated 11 million people throughout Ukraine in need of WASH-related assistance, this assessment aimed to gain a better understanding of typical WASH practices in seven selected oblasts: Chernihivska, Dnipropetrovska, Kharkivska, Kyivska, Mykolaivska, Vinnytska, and Zaporizka, and then to examine WASH needs in more detail. Findings were compared between different oblasts, rural and urban households, and IDPs, returnees, and host households.

While it seems that much of the population in the seven assessed oblasts has adapted well to challenges around WASH, areas nearer to active hostilities or those that have been liberated tended to express greater needs, usually due to damaged infrastructure. Damage directly to water pipelines and WASH facilities, as well as indirect damage to energy infrastructure, has caused shortages in the water supply as well as a decrease in quality of water. The presence of landmines and continued shelling in conflict-affected areas has made everyday activities like collecting water or going to the market more dangerous. Inflation has made hygiene items less affordable, and special products for older people and/or people with disabilities have been especially difficult to procure.

Generally, Zaporizka, Kharkivska, and Mykolaivska oblasts reported the worst conditions. While most households reported coping with shortages by reducing laundry and cleaning, or finding another source of water, in Zaporizka oblast, the most common coping mechanism was to reduce water consumption. Personal safety when collecting water or going to markets was of concern to around a quarter of households in Zaporizka and Kharkivska, especially in rural areas. Similarly, rural areas in both oblasts reported the highest need for hygiene items, as over one third of households could not afford all the items they needed. While rural parts of Mykolaivska oblast did not express as many concerns, Mykolaiv city's damaged water supply had made piped water undrinkable and caused almost half of households to spend over 15 minutes collecting water, with one-third reporting daily water shortages. This situation caused considerable issues with laundry and bathing in the city as well. While on average, only 7% of rural households did not have access to improved sanitation facilities, in rural Dnipropetrovska, 21% of the population lacked such facilities, suggesting that developmental improvements are needed.

The Zaporizhzhian city of Huliaipole, near the frontline, reported some of the most severe water needs of all assessed areas with damage to wells and roads, as well as continued danger due to the city's proximity to conflict. Such findings highlight a need for further assessments in hard-to-reach areas that this assessment was not able to cover. Water quality monitoring is also recommended, as many concerns relating to water quality were raised in this report, and many households do not treat their drinking water. Further research is also needed around particularly vulnerable households, especially older people and/or people with disabilities who do not have caretakers, and minority communities. Provision of assistance should be carefully targeted when possible, especially regarding hygiene kits, as not all households who need them have been able to access them. Specific assistance for those with incontinence and those who use special medical devices is one of the top concerns. This assessment has been able to provide a general picture of the WASH situation, but more targeted research would be beneficial in ensuring that humanitarian response is properly focused on those most in need.