UKRAINE

Urban Centres Regained by Ukraine

Area-Based Assessment

May 2024





Cover picture: a destroyed apartment building on Kharkivska street, Izium, December 2023. Credit: Kateryna Tekhnikova for REACH.

About REACH

REACH facilitates the development of information tools and products that enhance the capacity of aid actors to make evidence-based decisions in emergency, recovery and development contexts. The methodologies used by REACH include primary data collection and in-depth analysis, and all activities are conducted through inter-agency aid coordination mechanisms. REACH is a joint initiative of IMPACT Initiatives, ACTED and the United Nations Institute for Training and Research - Operational Satellite Applications Programme (UNITAR-UNOSAT). For more information please visit our website. You can contact us directly at: geneva@reach-initiative.org and follow us on Twitter @REACH_info.



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Introduction: Rationale and methodology

0.1 Rationale

Why dive deep on urban centres regained by Ukraine?

Following the invasion of Ukraine by the Russian Federation on February 24, 2022, Russia occupied up to 132 000 km² of territory recognized as Ukrainian under international law. In the second half of 2022, Ukraine regained control over large swaths of territory formerly under the control of the Russian Federation, including large urban centres in Kherson, Kharkiv and Sumy regions – most of them after fierce urban warfare, causing civilian casualties and damaging utilities, services and infrastructure.

As more people return to these urban centres, reliable and up-to-date data on services and utility functionality becomes crucial. It is also important to identify milestones and lessons learned on the restoration of utilities and services, including push and pull factors and to what extent utilities and services functionality influences large scale population movements, in order to inform future response should Ukraine regain control over more areas. More generally, this brief also seeks to inform other contexts experiencing urban warfare and where restoration of utilities and services will become an issue.

Added value: identify lessons learned and remaining gaps

This area-based assessment seeks to understand the functionality of utilities and services in Kherson, Izium, and Trostianets from the period of Russian occupation until January 2024, including how functionality impacted people's needs and movement decisions at different points in time, and how they have been restored. It notably draws parallels between the restoration process of the three urban centres based on their population size and geography. With this report, REACH seeks to inform current and future area-based responses of humanitarian actors by gathering lessons learned and providing actionable information with a focus on the different experiences of non-displaced persons¹, returnees² and internally-displaced persons (IDPs)³ at different points in time.

0.2 Methodology

Geographical scope

REACH conducted area-based assessments in three urban centres formerly under Russian occupation in three different regions of Ukraine: Izium (Kharkiv region), Kherson (Kherson region) and Trostianets (Sumy region). These urban centres have been selected according to the following criteria:

- Formerly under Russian occupation and regained by Ukraine
- Experienced large-scale destruction
- Accessible for in-person data collection
- Geographic and demographic diversity, to allow comparison

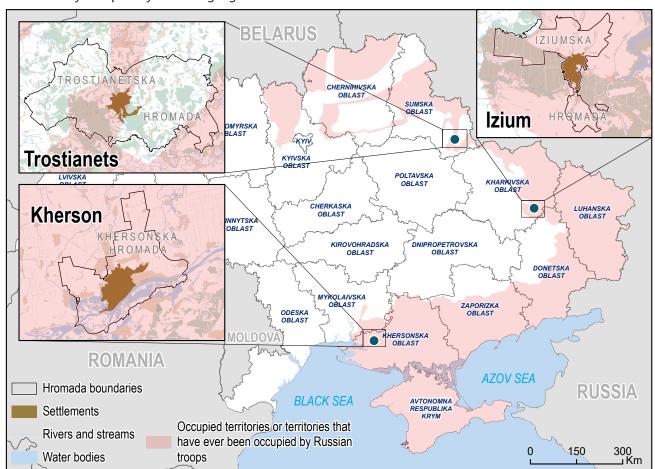
Sampling strategy

In Izium and Trostianets, REACH selected households for interviews by randomly generating GPS points in populated areas within the cities' administrative boundaries. In Kherson, to mitigate security risks to enumerators, REACH conducted interviews in shelters, with shelters closest to the Dnipro river excluded for security reasons. Overall results by settlement (n=215 in Izium, n=213 in Kherson and n=215 in Trostianets) and results across the three settlements (n=647) can be considered as representative with 95% confidence and +/-7% margin of error.

¹ For the purpose of this brief, REACH defines non-displaced as people who did not leave their place of habitual residence for more than two weeks between February 2022 and January 2024.

² For the purpose of this brief, REACH defines returnees as people who left their place of habitual residence for at least two weeks since February 2022 but have since returned.

³ For the purpose of this brief, REACH defines IDPs as people who are not currently living in their place of habitual residence as a result of military conflict.



Map 1: The three assessed urban centres, Izium, Kherson, and Trostianets, with areas formerly or currently occupied by Russia highlighted in red

Data collection methods

REACH collected data through three complementary sources using structured and semi-structured tools between December 2023 and January 2024:

- Household interviews in all three urban centres, to assess access to the functionality of utilities and services at different points in time, self-reported needs, factors influencing movement decisions and social cohesion dynamics with statistical significance. REACH interviewed 219 households in Izium, 215 in Trostianets, and 213 in Kherson.
- <u>Focus group discussions</u> with non-displaced persons, returnees and IDPs in all three cities, to identify challenges faced by community members at different points in time. 18 FGDs were conducted in total, with participants selected with age and gender inclusion in mind.
- <u>Key informant interviews</u> with local authorities and sectoral experts knowledgeable about utilities and services in all three urban centres. Across the three cities, a total of 35 key informants representing local authorities, utility companies and service providers were interviewed.

The following table provides a snapshot of the displacement status of interviewed households and the number of FGDs organized with people of each displacement status in all three cities:

	Non-displaced		Returnees		IDPs	
	Household interviews	FGD	Household interviews	FGD	Household interviews	FGD
Izium	145	2	65	2	6	2
Kherson	184	2	18	2	7	2
Trostianets	169	2	44	2	2	2

Analysis

All data was collected at the settlement level, and is analysed both at the settlement level and aggregated at the national level (all three settlements together) to allow for comparison and identify overall trends across all three cities.

Challenges and Limitations

REACH could not conduct door-to-door data collection in Kherson due to the security situation, and conducted household interviews in shelters. While shelters were randomly selected to mitigate the impact on representativity, REACH acknowledges that findings in Kherson may be limited to people who have access to shelters and in more accessible neighbourhoods, as these closest to the Dnipro river, the most dangerous, have been removed from the sample.

Due to the low number of households interviewed that have been identified as IDP (15 out of 647), the number of IDP households interviewed are not representative and therefore all conclusions represented in this report should be considered as indicative of the overall experience of IDPs across these regions.

0.3 How to navigate this report?

This report is the in-depth version of the related storymap <u>"A tale of three cities: living through two years of war in Izium, Kherson and Trostianets"</u>. It is divided in six chapters: timeline of events (Chapter 1), reported functionality of utilities and services at different points in time and restoration process (Chapter 2), access to information and assistance received (Chapter 3), remaining challenges and assistance needed (Chapter 4),) and lessons learned for future planning (Chapter 5). Chapters 1, 2 and 4 have subchapters dedicated to each city, to record the unique experience of each of them. A crosscity overview recording similarities between the three cities is included at the end of each of these chapters.

0.4 Key messages

Regardless of the functionality of utilities and services during occupation, in all three cities, **all utilities and services suffered some kind of damage when Ukraine regained control of the settlement**, with most utilities and services not functioning. Reported looting from Russian forces, destruction due to urban warfare and absence of specialists were identified as the main factors disrupting functionality of utilities and services.

Electricity, centralized water, gas, healthcare and public transport have been identified as the utilities and services most important to households to meet their daily needs and decide to return to their place of habitual residence if they have been displaced. Electricity is first among them: because of the interconnectivity of utilities and services, without electricity few other utilities or services can work.

Despite facing similar challenges when Ukraine regained control, the three cities are on different recovery paths now: remaining challenges in Trostianets relate most closely to development issues (installing motion sensors for streetlights) and remaining challenges in Izium relate most closely to reconstruction (rebuilding schools for in-person education), whereas Kherson remains on the frontline and is under regular shelling, making any recovery challenging. A majority of residents in all cities however reported the need for humanitarian assistance, especially food, hygiene items and medicines.



1. Timeline of events and demographics in Izium, Kherson and Trostianets

1.1 Izium

Demographics

	Social services representative
Population	23,671 (prewar: 44,979)
Households	12,637
Women	12,110
Older persons (>60)	17,583
Of which: >80	8,197
Children (<18)	2,671
IDPs	7,320 (3,669 registered after February 2022, including 2,200 local residents whose houses were destroyed)
Persons with disabilities	1,694

Kharkiv region's second most populous city, Izium fell under Russian control on April 1, 2022 after a month of <u>urban warfare</u>, shelling and <u>missile attacks</u> which damaged or destroyed up to 80% of the city (KI). The city remained close to the frontline throughout Russian occupation and experienced frequent destruction. Ukraine regained control of Izium on <u>September 11, 2022</u> during the Kharkiv counteroffensive which saw Ukraine regain control of large swaths of land in Kharkivska. Investigative journalists and NGOs reported evidence of <u>torture</u> and <u>war crimes</u> during occupation. Izium has since then been targeted by missile attacks (<u>May 22 2023</u>, <u>October 27 2023</u>), with the frontline being around 50 kilometres east of Izium (along the Kupiansk-Lyman axis).

Demographic data for Izium were shared by a representative of social services.

Population trends

Out of the 219 interviewed households, 66% reported not having left Izium for more than two weeks since the start of the war, with 30% reporting leaving but have since returned, marking the **largest percentage of returnees across all three assessed cities**. Six households were identified as IDPs from other settlements. Local authorities reported that the city's population had remained stable over the past three months with little movement in or out of the area. After Ukraine regained control of Izium in September 2022, 6,000 people returned (with the peak of returnees reportedly being around May-July 2023), and according to authorities, all those households who wanted to leave or return have already done so, meaning they do not expect significant changes in the population in the next 6 months. They further explained that those who have not yet returned are likely waiting for their homes to be rebuilt before coming back.

Local authorities reported challenges in tracking the number of returnees as people do not always register after returning, so approximate figures are estimated from the lists of those who register for humanitarian assistance. There are still IDPs relocating to Izium from areas nearer the frontline. For example, a few IDPs from Borova hromada (mostly women and children) reportedly recently moved to Izium (KI).

1.2 Kherson

Kherson, the eponymous centre of Kherson region, fell under Russian control on March 2, 2022, after which almost all of the region came under Russian occupation. Ukraine <u>regained control</u> of the city on November 11, 2022 and has retained control since. However, as a frontline city, most of Kherson is within range of multiple types of weapons (including direct and indirect fire), and frequent shelling incidents continue to cause civilian casualties and damage to infrastructure.

Demographics

Population figures are reportedly hard to give with certainty and have to be estimated through the lists of people receiving assistance. Demographics change depending on the security situation: during periods of increased shelling more people leave and then return during quieter periods (KI).

	Local authority	Social services representative	Utility companies representative
Population	50-70,000 (prewar: 279,131)	95,000	68,000
Children (of school age)	4,900	4,500	
Preschoolers	700		
Older persons (>60)		6,000 with mobility issues	47,600

Demographic data for Kherson were shared by representatives of local authorities, social services, and utility companies.

Population trends

Out of the 213 interviewed households, the majority (86%) reported not having left Kherson since the start of the war for more than two weeks, with only 9% of households reporting having left at some point and since returned to Kherson, **marking the lowest percentage of returnees across the three assessed settlements.** Seven households were identified as being IDPs, mostly from neighbouring settlements that experienced heightened shelling or were flooded last summer. Representatives of local authorities had differing opinions on population movement trends over the past three months, with two key informants reporting that the population had decreased because of winter weather, lack of access to utilities and shelling, while two other key informants reported that the population had been stable.

In line with the reported differences on population trends, representatives of local authorities also differed on anticipated trends in the next six months. Some key informants expected the population to remain stable as people will not return until their homes are restored and because there is little work available, while others expected an increase as people will come back to do light repairs on their houses and to cultivate their private gardens during warmer months. However, all key informants agreed that demographic trends will depend on the security situation, with one key informant also mentioning that it will depend on utility functionality and that they expect people from the left bank of the Dnipro river to move to Kherson to access services if Ukraine regains control of that region.

1.3 Trostianets

A small city located around 35 kilometres from the Russian border in Sumy region, Trostianets was occupied by Russia from the first day of the full-scale invasion up until March 26, 2022. As it was among the first settlements to fall under Russian control, it was also amongst the first to be regained by Ukraine. After a month of fighting, private houses, workplaces, healthcare facilities and the train station were left damaged or destroyed and the area filled with landmines and unexploded ordinances (KI). Investigative journalists also reported evidence of summary executions and systematic looting during Russian occupation. Ukraine regained control of the rest of Sumy region in April 2022, and besides frequent shelling in settlements on the border with Russia, no significant attacks have been reported in Trostianets since April 2022.

Demographics:

	Social services representative
Population	Pre-war: 19,544
Older persons (>60	7,294
-Of which: women	4,639
-Of which: men	2,655
Women	14,377
Children (<18)	3,979
IDPs	1,669
Persons with disabilities	1,565

Demographic data for Trostianets were shared by a representative of social services.

Population trends

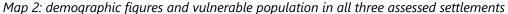
A large majority of interviewed households (79%) reported not having left the settlement for more than two weeks since the start of the war, with another 21% of interviewed households having left at some point and since returned to Trostianets. Local authorities reported that over the past three months, the number of residents increased, driven by returnees (especially families with children) and IDPs evacuating from settlements bordering Russia in Sumy region.

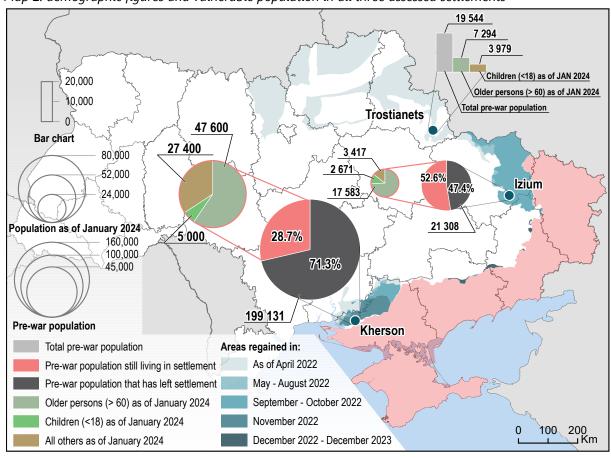
Over the next six months, local authorities expect continued population movements, with numbers of people arriving and leaving roughly balancing out. The overall population is likely to remain stable (KI).

Cross-city overview: timeline and demographics in the three cities

The three cities had very different experiences since the start of the war. While all three were occupied by Russia early on in the war, Ukraine quickly regained control of Trostianets, while Izium and Kherson remained under occupation for many months. Trostianets experienced large-scale destruction in the early weeks of the war, but as Russian forces retreated from Sumy region, it remained further away from the frontline. Kherson also experienced destruction early in the war, but as the frontline moved to Mykolaiv it became a rear area, only to experience large scale destruction when it became a frontline city again after Ukraine regained control. Izium remained on the frontline before and during Russian occupation and saw some of the fiercest attacks on the city during that time, but after Ukraine regained control the frontline moved away from the city and unlike Kherson, it is not within artillery range at time of writing.

The demographic situation seems to have stabilized in Izium and Trostianets, with 94% of interviewed households between the two locations reporting that they plan on staying in their current location for the next six months. Households with older persons are slightly more likely to report intention to remain (97%) than those without (91%), whereas households with children are more likely to be unsure of their movement intentions in the next six months (11%) compared to those without (4%). Across all three settlements, nearly all interviewed households (97%) reported currently residing in their place of habitual residence, with very few IDPs from other settlements. However, Izium and Kherson, as opposed to Trostianets, still experience difficulties gathering precise information on the number of people living in the settlement, especially for returnees. In Kherson, despite giving very different population estimates, key informants all agreed that the security situation is the main driver behind population trends, and that the city lost the majority of its pre-war population. Indeed, the proportion of interviewed households identified as returnees in Kherson is the lowest of all settlements with only 9%, compared to 21% in Trostianets and 30% in Izium.



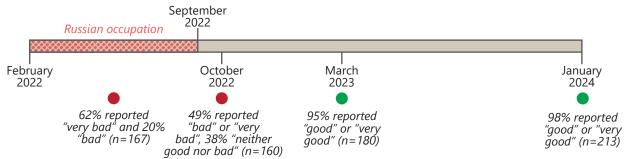


2. Reported functionality of utilities and services, from Russian occupation until today

2.1 Izium

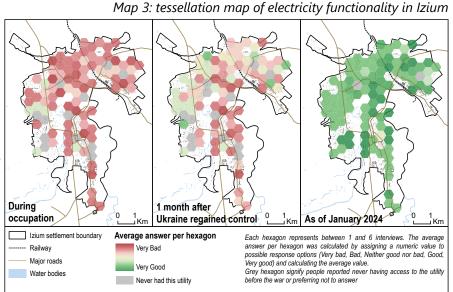
Utilities

Electricity functionality in Izium



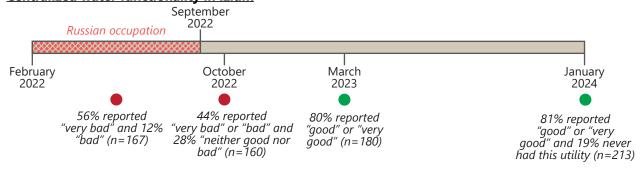
During occupation, the situation was reportedly catastrophic, with key informants stating there was no electricity at all between March and May 2022.

After Ukraine regained control, within a month 85% of the population was reconnected to electricity (KI). The remaining 15%, living in harder-to-reach neighbourhoods or where destruction to electric network was more severe, were reconnected within 3 months (KI).



As of January 2024, the situation was reportedly stable in the city, though the electrical network had yet to be rebuilt in neighbouring rural settlements, with reconstruction expected to start sometime in 2024 (KI).

Centralized water functionality in Izium



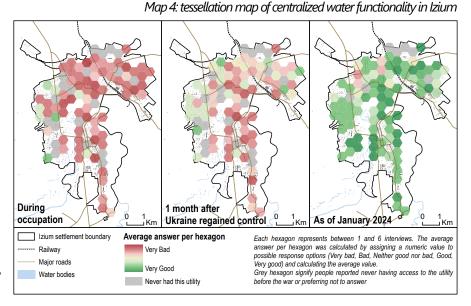
During occupation, the situation was reportedly catastrophic with no centralized water due to lack of electricity (KI/FGD). People collected rainwater or fetched it from wells (FGD).

After Ukraine regained control, centralized water was restored within one month, despite damage

to conduits and wells in the city centre (KI). Destroyed pipes under destroyed bridges caused sewage water to fall into the river. The entire fleet of vehicles belonging to the centralized water utility company was destroyed (KI).

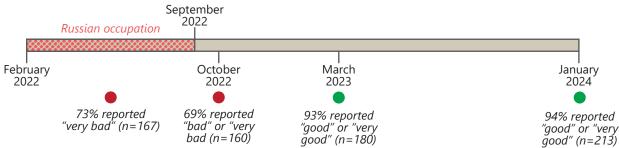
As of January 2024,

the situation was mostly stable, although cuts to centralized water supplies were still reported (FGD). However, destroyed sewage pipes under destroyed bridges

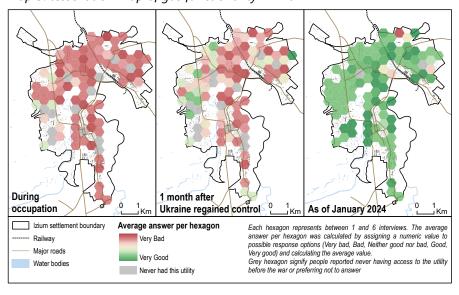


had yet to be restored, with wastewater being collected in a temporary sewage collector.

Gas functionality in Izium



Map 5: tessellation map of gas functionality in Izium

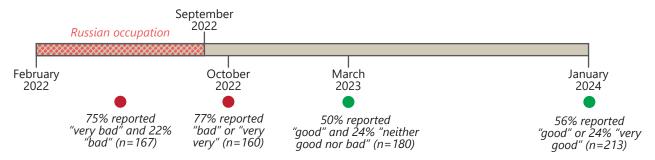


During occupation,

key informants and FGD participants reported that gas was functioning in a few neighbourhoods of the city, with some participants reporting they had gas, and others reporting they did not.

After Ukraine regained control, gas was reported to be restored within one month (KI), although one key informant representing local authorities reported that it took three months for full restoration.

Solid waste management functionality in Izium

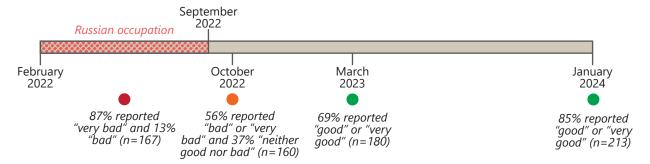


During occupation, solid waste management was reportedly not functioning (FGD).

After Ukraine regained control, the situation was reportedly challenging. Only 6 out of 16 waste disposal trucks were functioning and 60 out of 500 employees were working. Garbage had accumulated when Russia temporarily controlled the city, and the solid waste management company had to remove a lot of rubble and trash caused by military conflict in the city after Ukraine regained control (KI).

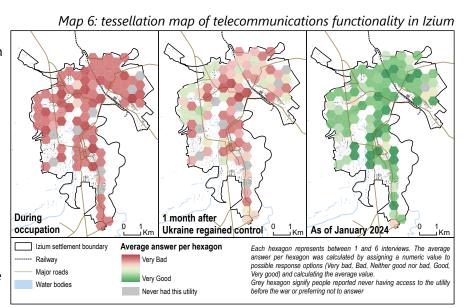
As of January 2024, solid waste management was reportedly functioning at 80% of its pre-war capacity, though as the population had decreased, the coverage was reportedly adequate. However, utility companies were reportedly not fully equipped to address solid waste management needs, lacking heavy machinery such as cranes, aerial platforms to cut trees, and bulldozers (KI).

Telecommunication functionality in Izium



After Ukraine regained control, internet was reportedly restored within three months (KI/FGD). The internet company reportedly relied on equipment from other utility companies to restore functionality. Thousands of requests to be reconnected were submitted as soon as the restoration process started, with people reportedly expressing dissatisfaction at the quality and rapidity of the

restoration process (KI).



As of January 2024, the situation remained somewhat challenging with the system only about 50% operational. There were cuts with telecommunication (FGD), and it was difficult to connect rural settlements since mines prevented new cables from being laid down (KI).

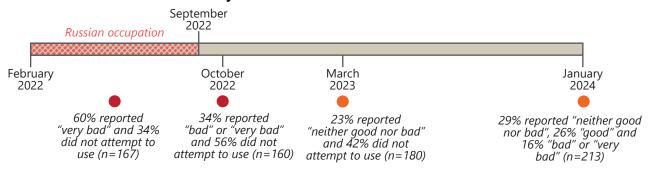
Heating functionality in Izium

After Ukraine regained control, a temporary solution in the form of pellet boilers was financed by local authorities, as the entire heating system in private houses and high-rise buildings needed to be restored after water froze in pipes and busted them open (KI).

As of January 2024, depending on the heating system, residents may or may not have had access to heating. FGD participants reported that heating was not functioning because of the low voltage of heaters and broken pipes that were not yet restored. Key informants reported private houses were connected to gas heating systems, but multi-storey buildings in the city centre rely on centralized boilers. Only 134 out of 198 buildings were connected, and 11 stationary boilers out of 22 (and 10 modular boilers) were working (KI).

Services

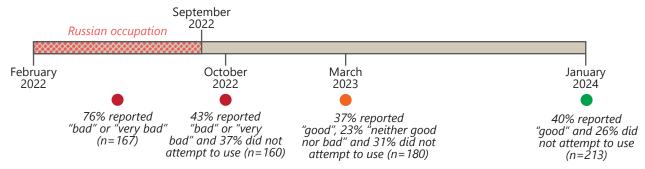
Administrative services functionality in Izium



After Ukraine regained control, administrative services resumed almost immediately (KI/FGD). However, the situation was challenging: the executive committee facility was destroyed, and the lack of electronic devices meant all accounting had to be done manually (KI).

As of January 2024, the situation had improved but remained challenging. Only half of the administrative services that were provided before the war were being provided (KI), and participants of the FGDs reported various issues including that residents had to wait a long time to restore documents and that administrative services moved to a smaller site after the main one was destroyed, leading to long queues as the smaller building was not adapted to receive a large amount of people. Other participants reported issues related to applying for compensation after destruction to their homes. One participant's claim was reportedly refused because they needed a commission from Kharkiv to come and verify the damage, and another participant reported that they could not apply for restoration as all residents of the same buildings need to apply at once but those residents that had left the area could not be reached.

Social services functionality in Izium



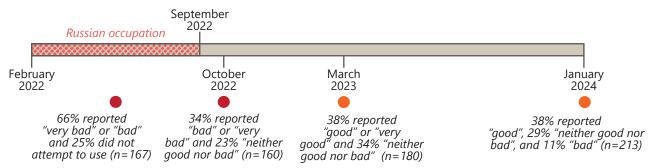
During occupation, social services stopped initially but resumed working 3-4 months after Russia gained control of the settlement, with the territorial centre distributing food to isolated people (FGD).

After Ukraine regained control, social services resumed working, though the department of social protection and the support centre for children were destroyed, and only 35 out of 52 social service staff were working (KI).

As of January 2024, the department of social protection, family youth services, and the territorial

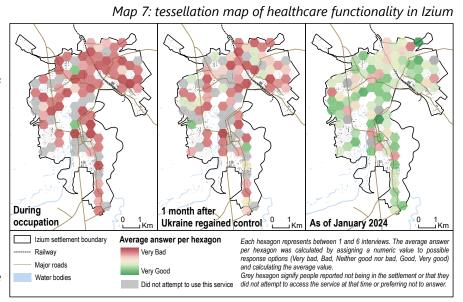
centre were functioning (KI). However, the healthcare representative reported there was no space to take care of isolated older persons whose homes were destroyed.

Healthcare functionality in Izium



During occupation,

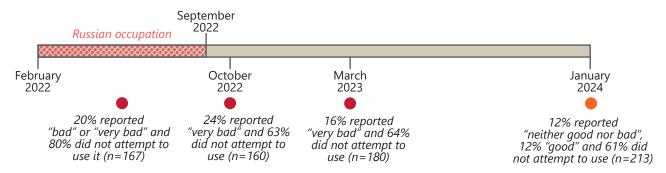
key informants and FGD participants did not reach a consensus on the functionality of healthcare: participants of two FGD reported it was not functioning, while three key informants (including two experts on healthcare) reported that some level of medical care was provided in Izium's medical facilities suggesting that local residents faced barriers accessing or getting information on healthcare functionality.



After Ukraine regained control, the healthcare system reportedly immediately resumed, providing services free of charge. The hospital was functioning (including therapeutic care), albeit in a reduced manner (KI). Only the basement and the first floor of the hospital were functioning, surgical care was limited, and there were outages or total lack of utilities in healthcare facilities (KI). All healthcare facilities were reportedly damaged or destroyed, medical records of the population were destroyed and had to be recollected from scratch, and the morgue was full (KI). Some healthcare facilities reportedly moved to different buildings to accommodate an increase in the number of patients arriving as the security situation improved (KI). There were no pharmacies, medicines or bandages (KI).

As of January 2024, healthcare was mostly functioning, with some issues reported. First level of medical care was functioning, and all of the Izium's population was covered by family doctors (KI). Outpatient clinics were functioning, including in rural villages, and there was a mobile clinic with an XRAY machine operating in the hromada (KI). The hospital was working, providing access to departments for dentistry, skin diseases, tuberculosis, intensive care, operating rooms, elderly and disabled departments, ambulances, forensic medical examination, medical and social expert commission, and CT scans (KI). Though functioning, facilities were reportedly insufficiently accessible (not all located on the same premises), there was no relevant warehouse to stock medical equipment, there were not enough treatment areas, the hospital's surgical department was not functioning, and pen-and-paper accounting was inefficient (KI). There was a lack of doctors and specialists, with only half of the staff working (KI). Specifically, only 11 out of 26 pre-war family doctors were working (although this was reportedly sufficient to cover most needs due to reduced population), and there was a lack of neurologists, cardiologists, and paediatricians (KI/FGD), with FGD participants reporting having to go to Kharkiv for specific care or having to wait in long queue on site in Izium. One pharmacy was reportedly functioning, and healthcare facilities had access to drugs to treat cancer, although there was reportedly an overall shortage of medicines in the city (KI).

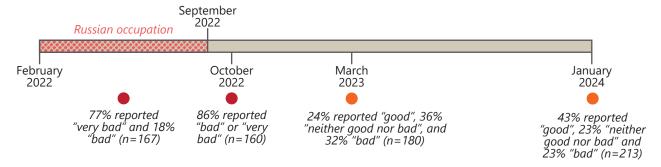
Education functionality in Izium



After Ukraine regained control, education was not functioning and facilities were extensively damaged. All preschools were damaged (8 preschools) or destroyed (2 preschools), there was a lack of teachers and accountants (education treasury was not functioning), and there was no internet for online education (KI). Secondary education resumed online around September 2022.

As of January 2024, primary and secondary education resumed online only due to the absence of bomb shelters in school buildings and the destruction of facilities – including support facilities such as canteens (FGD/KI). Kindergartens and preschools were not working, preventing caretakers to go to work (KI). An educational space for children to socialize in the absence of schools opened (KI). However, bomb shelters were being installed in kindergartens to resume in-person education and new accountants for education facilities were being trained at time of data collection (KI).

Public transport functionality in Izium

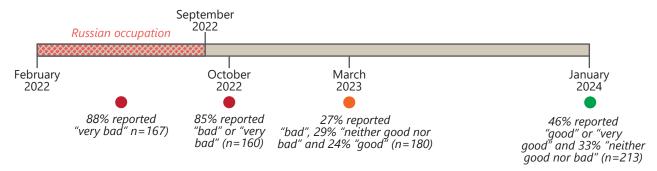


During occupation, participants of one FGD reported that public transport was not functioning, although participants of another FGD reported that one bus line was launched 3-4 months after Russia took control of the settlement.

After Ukraine regained control, the entire fleet of public transport vehicles was destroyed, meaning people could not go to work or move around the city. Taxis were available but 20 times more expensive than a bus ticket (KI). Public transport reportedly resumed within 3 months, but only after temporary bridges were installed.

As of January 2024, there were 8 bus routes in Izium and two neighbouring villages, an insufficient number for the population (13 buses compared to 42 before the war, according to one key informant). FGD participants reported having to wait a long time because of the lack of buses, especially affecting people wanting to get to work in the morning. Other reported issues include an increase of price for spare parts for vehicles and fuel (KI).

Financial institutions functionality in Izium

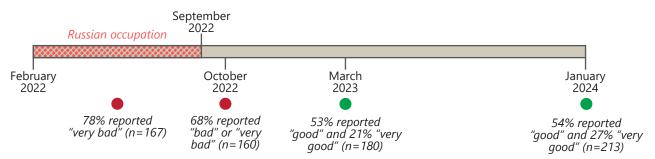


During occupation, participants of one FGD reported that they could only use cash in rubles and had to exchange hryvnia at a very disadvantageous exchange.

After Ukraine regained control, two out of the six pre-war banks were functioning (KI). Other services resumed between one and two months later, only after electricity and telecommunications were restored (KI/FGD).

As of January 2024, banks and ATMs were working (KI), however there were reportedly long queues on site due to the lack of staff and banks were not operating during air alerts, leaving people to wait outside for banks to reopen (FGD).

Postal services functionality in Izium



After Ukraine regained control, one key informant representing utilities reported postal services resumed immediately, while one key informant representing social services and FGD participants reported postal services resumed one to two months after Ukraine regained control of the settlement.

As of January 2024, post offices, including cargo post, were reportedly operating (KI).

Shops and markets functionality in Izium

During occupation, some FGD participants reported not all shops and markets were functioning, with those open selling items imported from other cities occupied by Russia (at the time, Kupiansk) at very high prices. Hygiene items were reportedly unavailable. Other FGD participants reported that shops and markets were not functioning at all – there was no supply of food, and people had to rely on distribution of humanitarian assistance.

After Ukraine regained control, participants of two FGD reported that shops and markets immediately reopened.

Other reported issues

During occupation, the 70% of Izium's pre-war population that remained in the city faced life-threatening protection issues and violations of international humanitarian law (KI) usage of residential areas for military purposes, and mining of the territory (FGD).

After Ukraine regained control, around 80% of the city was destroyed, including the police building and court of justice. There was not enough service staff – especially as specialists with children were not returning to Izium, and the city treasury did not have enough to pay employees (KI). The city

was faced with theft and destruction of property and equipment: amongst other things, healthcare facilities, equipment (for telecommunications, accounting, solid waste management), and computers were lost. The reported destruction or theft of critical equipment, such as specialised vehicles to transport people with mobility issues, greatly impeded the capacity of social service providers to resume services after Ukraine regained control (KI).

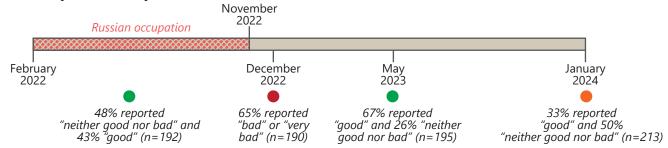
As of January 2024, FGD participants and key informants reported the main priority was to restore damaged and destroyed houses, especially as destruction of private residences, alongside loss of livelihood had pushed some people into homelessness. Mines were also reported as a concern (KI). It was reportedly difficult to move around the settlement due to bad roads and destroyed bridges, which caused additional challenges to service providers: it was more difficult for fire trucks to access one part of the city, and for local residents to access healthcare facilities as only one out of two temporary bridges would allow for the passage of public transport (KI). Local residents reported people unemployed as of January 2024 could not find relevant jobs (FGD).

Conditions in collective sites were reportedly not optimal: while residents of collective sites received medical care and assistance restoring documents, facilities were not adequately heated nor adapted for older persons or persons with disabilities. Legal counselling services were also unavailable, and residents had to pay to stay, leaving them without enough financial resources to take care of their other needs (FGD).

2.2 Kherson

Utilities

Electricity functionality in Kherson

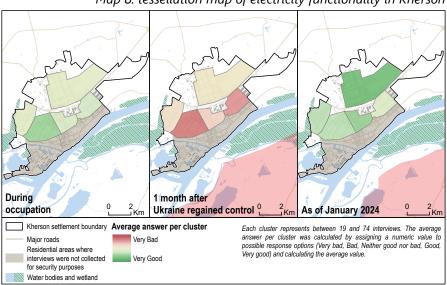


During occupation,

electricity was mostly functional, however a few days before Ukraine regained control, the power grid was damaged by conflict and disrupted electricity (KI).

After Ukraine regained control, electricity was restored within a month in the city, though reportedly remained unavailable in neighbouring rural villages for up to 6

Map 8: tessellation map of electricity functionality in Kherson

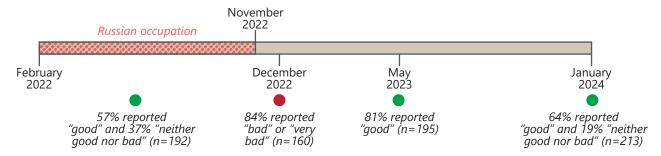


As of January 2024,

months. (KI).

electricity remained unstable. There were frequent cuts, especially after shelling (for 1-2 weeks at a time) and during winter when people used electric heaters, putting a strain on the electricity system (FGD/KI). Generators were used during cuts, but fuel was expensive (KI). In particular, neighbourhoods close to the river didn't have reliable electricity (FGD).

Centralized water functionality in Kherson



During occupation,

centralized water was mostly functional, however a few days before Ukraine regained control, the centralized water network was damaged, disrupting it (KI). Drinking water could be bought in stores but there were long queues (FGD).

After Ukraine regained control, there was no centralized water due to the absence of electricity, the lack of staff at the centralized water

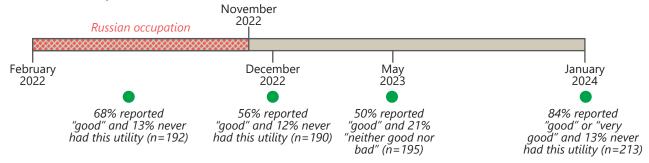
company, and looting

Map 9: tessellation map of centralized water functionality in Kherson During 1 month after Ukraine regained control 0 occupation As of January 2024 Kmرک ☐ Kherson settlement boundary Average answer per cluster Each cluster represents between 19 and 74 interviews. The average answer per cluster was calculated by assigning a numeric value to possible response options (Very bad, Bad, Neither good nor bad, Good, Very Bad Major roads Residential areas where Very good) and calculating the average value interviews were not collected for security purposes Very Good Water bodies and wetland

or destruction of pumping stations. Half of the wells and water intakes and the water quality control laboratory were reportedly destroyed, although the network itself was not damaged. Drinking water was provided for free to people (KI).

As of January 2024, centralized water reportedly remained unstable. There were localized cuts due to shelling, especially in the Korabel and Antonivka districts, where centralized water was provided on a schedule with the help of expensive diesel generators (FGD/KI). Shelling was reportedly so frequent that utility companies were not able to repair all damages to pumping stations. The destruction of the Kakhovka dam and subsequent floodings further damaged or destroyed infrastructures that were still under repair (KI).

Gas functionality in Kherson

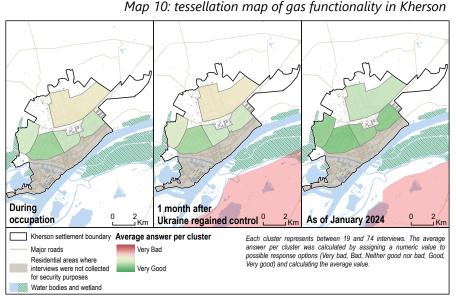


During occupation, gas was functioning (KI).

After Ukraine regained control, gas was somewhat functioning in Kherson city, although 25,000 people across 62 settlements did not have gas. Facilities had to be demined (KI).

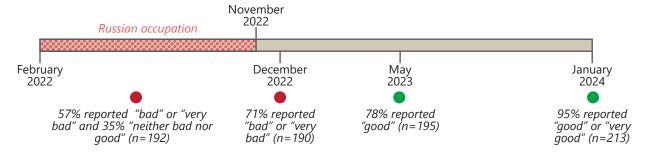
As of January 2024,

gas supplies remained unstable, and restoration was still ongoing due to constant shelling (KI). A representative of Kherson's gas company also reported that they had to significantly change their operations, as part of the regional network was split between territories under the control of Ukraine and territories occupied by Russia. Even where supply had been restored, there were still localized cuts to gas due to shelling and in areas that



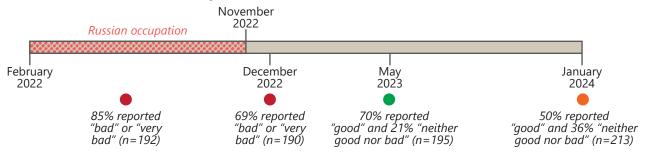
were flooded following the destruction of Kakhovka dam (KI).

Solid waste management functionality in Kherson



As of January 2024, there was reportedly a shortage of drivers to pick up all the solid waste (KI).

<u>Telecommunications functionality in Kherson</u>



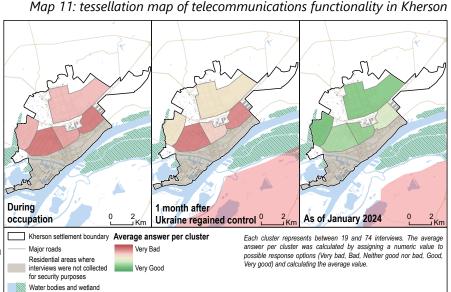
During occupation, according to a utility company representative, telecommunications were mostly functioning, however FGD participants reported multiple issues related to communications: they reported having either no or bad phone and internet connection, and that Ukrainian telecommunication service providers were not operating. FGD participants reported that the only mobile operator available was a Russian operator and in order to buy a SIM card it was necessary to show your passport, that attempts to use the internet in cybercafés were unwelcome, and that Ukrainian TV, radio and internet were unavailable.

After Ukraine regained control, key informants reported there was no telecommunications due to the destruction of the Kherson television tower but that was restored quickly through Starlink. Internet was reportedly provided for free until December 2023. FGD participants believed the restoration

process to have been long and expensive.

As of January 2024,

telecommunications networks remained unstable. Key informants and participants of three FGD reported localized cuts to telecommunications after shelling. A utility company representative reported that there were up to six shelling incidents per day disrupting internet cables, and that every intervention required up to 3 hours of labour and 250 metres of cable to repair.



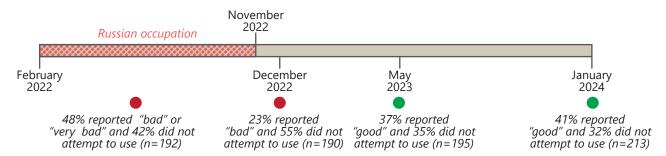
Heating functionality in Kherson

After Ukraine regained control, two factors prevented heating from being provided: the absence of electricity, and the flooding of all equipment at substations and boiler houses after the destruction of Kakhovka dam in June 2023 (KI)

As of January 2024, the heating company representative reported all subscribers were receiving heating, although the representative of local authorities and FGD participants disagreed and reported that some homes were still not heated. Key informants noted that the constant shelling of the city prevented utility workers from fixing the damages to heating, and that the heating system would need to be modernized, not simply repaired after shelling.

Services

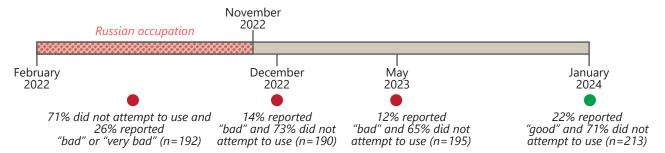
Administrative services functionality in Kherson



After Ukraine regained control, registration documents were reportedly stolen or destroyed by shelling and flooding after the Kakhovka dam destruction in June 2023 (KI). Services resumed after 6 months, with the slow recovery attributed to shelling (KI). FGD participants found the online registration system of the State Migration Service of Ukraine very useful to avoid large crowds of people gathering.

As of January 2024, administrative services were functioning, including mobile teams going to neighbouring settlements. There were, however, reportedly some issues with restoration of documents, as some archives were destroyed by shelling and flooding before they could be digitalized (KI).

Social services functionality in Kherson

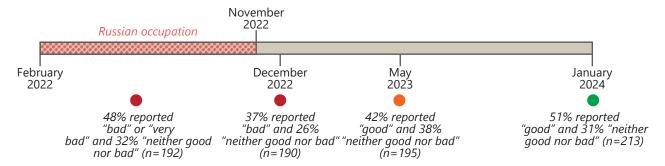


During occupation, social services remained somewhat functional, with people still receiving pensions and benefits, but there were not enough workers (with one social worker for 40-50 vulnerable persons) (FGD).

After Ukraine regained control, the shelter for survivors of domestic violence was damaged, and data on vulnerable people were destroyed by shelling (KI).

As of January 2024, a variety of social services were operating, including the department of social protection, family and youth services, the city centre for social services and the territorial centre, although the shelter for survivors of domestic violence was still not repaired (KI).

Healthcare functionality in Kherson

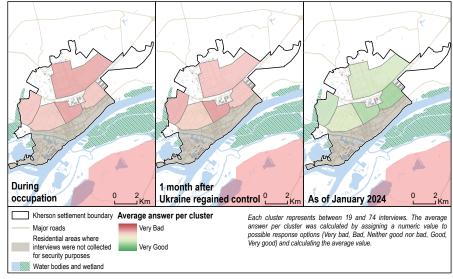


During occupation,

healthcare was reportedly functioning (KI), though several barriers prevented residents from accessing it, including high cost and overcrowding, leading residents to believe it was unsafe and therefore to avoid it (FGD). Some medicines were reportedly available, but of bad quality (FGD).

After Ukraine regained control, healthcare remained functional but barriers increased.

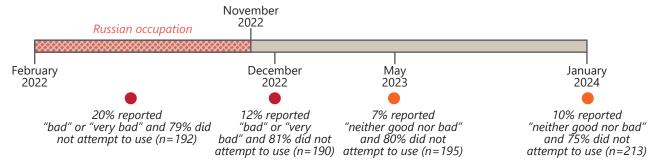
Map 12: tessellation map of healthcare functionality in Kherson



There were outages of electricity and water in hospitals, lack of XRAY or ultrasound machines, and some residents feared visiting the facilities due to the threat of shelling (FGD). However, some doctors reportedly returned to the area and humanitarian medical organizations provided additional support (FGD).

As of January 2024, healthcare was still functioning, including hospitals, ambulances and specialized transport to Mykolaiv, although the top floors were closed for security reasons (KI/FGD). Shelling increasingly negatively impacted residents' access to healthcare, leading to a longer response time, high volume of patients, unsafe conditions as hospitals can be targeted, patients needing to be moved to other cities, treatment areas moved to basements for safety, and recent lack of international doctors who stopped going to Kherson due to the security situation. Some healthcare facilities were also reportedly damaged or destroyed by shelling and/or were flooded after the Kakhovka dam destruction. There was reportedly a lack of staff and FGD participants complained about long waiting lists and high cost. Participants also reported a lack of sufficient MHPSS services. There were pharmacies in Kherson but residents faced barriers accessing medicines, including pharmacies being too far away and closing as early as noon (FGD).

Education functionality in Kherson

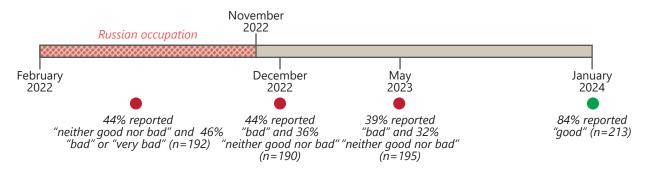


During occupation, only education in Russian and following Russian curriculum was provided, with Ukrainian educational staff reportedly threatened if they refused to resume online school in the Russian language (KII). Some people reportedly refused to send their children to these schools (FGD).

After Ukraine regained control, educational facilities were damaged and education was conducted online only, resuming after 3 months. Facilities had to be demined, and a place for children to socialize was opened (KI).

As of January 2024, education was still conducted online due to the security situation. Online education was reportedly of lower quality than in-person, especially as frequent electricity and internet cuts (especially in villages around Kherson) made it difficult for children to attend, although they had been provided with electronic equipment (KI). Educational facilities were still damaged and in need of renovations, deteriorating due to lack of repair. FGD participants reported concerns about children's mental health in absence of places for socialization. Key informants also insisted on the need to have trustworthy and equipped shelters if in-person learning resumes, not just basements.

Public transport functionality in Kherson



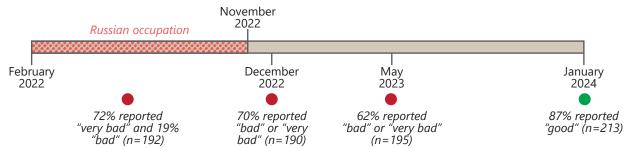
During occupation, the functionality of public transport worsened, although it was reportedly already problematic before the war (KI).

After Ukraine regained control, the city received temporary support in the form of loaned vehicles from other regions. FGD participants reported that public transport was functioning, but very poorly.

As of January 2024, the representative of social services reported public transport was meeting the needs of the whole population, although other key informants reported public transport was

interrupted by shelling and electricity cuts, and that there was an overall shortage of buses. Similarly, FGD participants reported having to wait a long time to access public transport, that the service stopped too early and that there was no reliable schedule.

Financial institutions functionality in Kherson

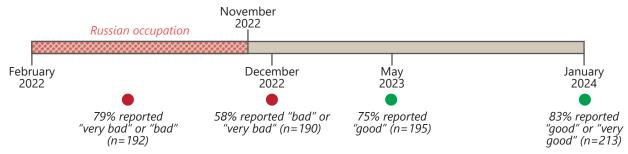


During occupation, while the Ukrainian financial institutions were reportedly not functioning at all (FGD), residents could access other financial institutions, though with long queues, from the start of the war until May 2022. From May until Ukraine regained control, financial institutions were reportedly unavailable (FGD).

After Ukraine regained control, financial institutions were still not functioning and people had to go to Mykolaiv to access them (FGD). When they resumed working, access remained tedious, with long queues at ATMs to withdraw money – including financial assistance (KI).

As of January 2024, pensioners needed to meet in-person with a representative of the financial service to receive their pensions, something challenging for older persons with limited mobility (FGD). According to interviewed households, financial services were functioning in a satisfactory manner.

Postal services functionality in Kherson



During occupation, postal services were reportedly unavailable, leading to challenges for older persons to receive pensions (FGD).

After Ukraine regained control, postal services immediately resumed (FGD).

Shops and markets functionality in Kherson

During occupation, there were food shortages during occupation, although the situation reportedly got better as products from occupied Crimea were imported (though they were of poor quality). Some people also refused to buy imported Russian products, leading to additional challenges as supply chains to Ukraine were severed. Hygiene items were expensive and also of bad quality, with a notable shortage of adult diapers (FGD).

After Ukraine regained control, shops and markets were looted by retreating Russian forces and food shortages were highly concerning (KI). Additionally, item prices increased, making it hard to afford what little was available (FGD).

As of January 2024, the prices of all items were high, with some food items being so difficult to find in markets that black markets with expensive and poor quality items reportedly developed. Not all shops were open and accessibility was limited as shops closed around noon due to shelling (FGD). In REACH's <u>cash feasibility assessment of Kherson</u> in January 2024, regular shelling was also listed as the biggest barrier for consumers to access markets.

Kherson: a large difference in utilities and services functionality at the start and the end of occupation

Kherson faced three main challenges in the last days of Russian occupation and after Ukraine regained control:

Theft and destruction of equipment around the end of the occupation.

Overall, most utilities and some services were reportedly functioning under Russian occupation until a week before Ukraine regained control of the settlement, at which time theft and destruction became an increasing issue (FGD). One key informant reported that no utilities were functioning at that time except heating. Among other things, healthcare facilities, computers, accounting documents, furniture, equipment of utility companies (including heavy machinery) and transport vehicles were reportedly stolen or destroyed (KI). The theft and destruction of vehicles impacted utility companies' capacity to quickly repair damaged utility infrastructure.

Lack of qualified personnel.

Only after Ukrainian forces regained the city did massive shelling by Russian forces begin, and the shelling has continued ever since, causing many more people to leave the city (FGD/KII). There was not enough service staff, especially as many doctors reportedly left the city when Ukraine regained control (KI). One key informant representing local authorities reporting all services suffered from shortages of equipment.

Financial issues due to lack of customers.

Moreover, utility companies reported a lack of profit as so many people had left the city and the remaining subscribers were not enough to cover the operating costs. People were reportedly accumulating debts on utilities even when Russia controlled the city and were subsequently at risk of being disconnected from utilities (FGD). Some households reportedly had to pay a flat rate for centralized water even if they were not living in Kherson at the time (FGD).

Other reported issues

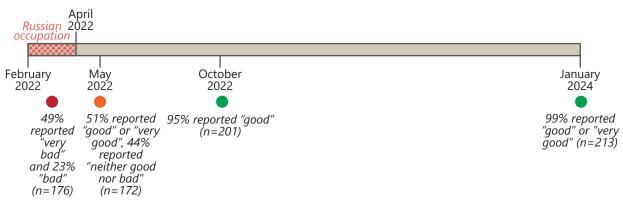
As of January 2024, the public transport representative reported that while utilities and services were functioning at reduced capacity compared to pre-war levels due to constant damage from shelling, this was enough to meet the current needs of people as there were fewer residents. Key informants representing public transport, centralized water, heating and government reported a shortage of staff because many workers had left the area or joined the military since the start of the war, and because utility workers had to work under shelling. Utility workers reportedly requested personal protective equipment (PPE) to protect themselves while working, but had not received it at time of writing (FGD).

Due the constant threat of shelling, people reportedly avoided going outside unless necessary, with the intensity of the shelling depending on the neighbourhood. Korabel district was affected the most by shelling and was also the worst hit by flooding following the destruction of Kakhovka dam, as reported by REACH in June 2023. Shelling is so frequent that FGD participants said they did not notice it anymore, with others suggesting residents be provided with tourniquets and first-aid kits in case of injury. Despite invincibility points being a mitigation measure against shelling, there were no invincibility points in every district and electricity in invincibility points was only turned on if there are at least 10 people present. Regarding livelihoods, online home-based schooling modalities for children limit caregivers' ability to work during the day. This particularly affects women with children (FGD). In general, FGD participants reported there were few jobs available and that financial assistance was needed as most residents remained unemployed.

2.3 Trostianets

Utilities

Electricity functionality in Trostianets

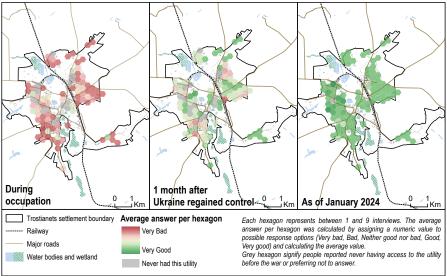


During occupation, electricity was reportedly not functioning (FGD).

After Ukraine regained control, electricity was restored within one month, with local residents relying on generators in the meantime (FGD/KI).

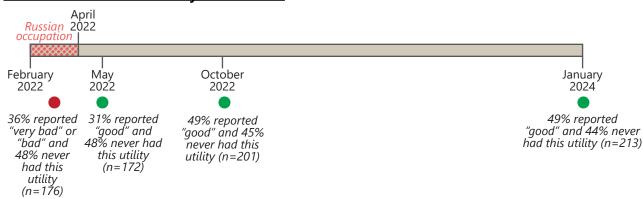
As of January 2024, electricity was fully functioning, though some electric poles had yet to be rebuilt, vehicles conducting emergency repairs were not

Map 13: tessellation map of electricity functionality in Trostianets



sufficiently equipped, and motion sensors for streetlights needed to be installed.

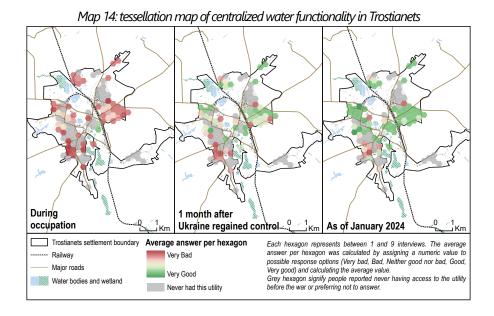
Centralized water functionality in Trostianets



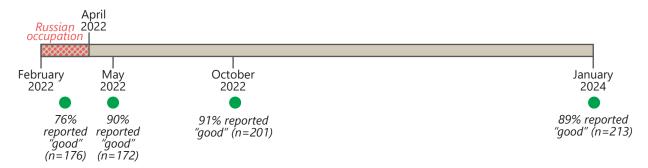
During occupation, the centralized water system was reportedly not functioning (FGD).

After Ukraine regained control, centralized water was functioning, but evacuation of sewage water was not functioning due to damage to treatment facilities: some facilities were flooded as there was no electricity to drain wastewater, and destroyed pipes flooded the city centre with sewage water (KI).

As of January 2024, wastewater remained challenging, with only half of the collectors restored (KI).



Gas functionality in Trostianets

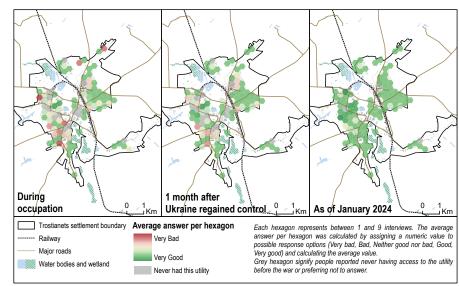


During occupation, gas was functioning thanks to gas utility workers who restored and maintained the system during occupation (KI), although gas supply was sometimes interrupted (FGD).

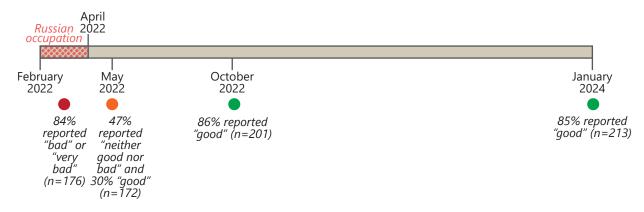
After Ukraine regained control gas was functioning despite damage to the network (KI).

As of January 2024, gas was fully functioning (KI).

Map 15: tessellation map of gas functionality in Trostianets



Solid waste management functionality in Trostianets

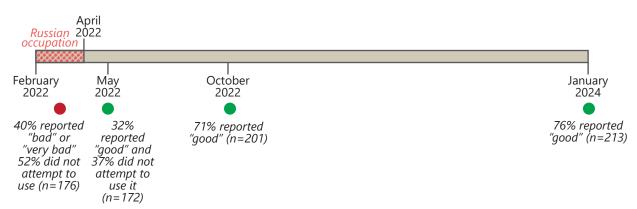


During occupation, solid waste management was not functioning (FGD).

After Ukraine regained control, garbage and conflict-related rubble accumulated (KI). However, solid waste management resumed within a month (FGD), and the destruction caused by the conflict was quickly removed (KI).

As of January 2024, solid waste management was fully functioning (FGD).

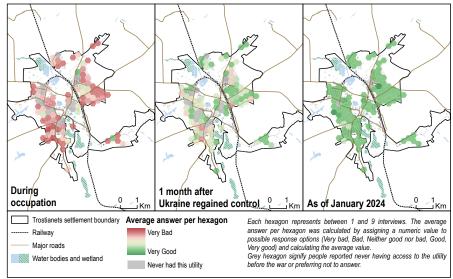
Telecommunications functionality in Trostianets



After Ukraine regained

control, internet was not functioning due to the destruction of internet cables and poles (KI). However, internet was fully restored by the summer of 2022. Around 80% of the network had to be restored, but restoration was quick thanks to the available stock of cables and the financial assistance the company received to buy more. Starlink terminals allowed immediate access to internet after Ukraine regained control (KI),

Map 16: tessellation map of telecommunications functionality in Trostianets

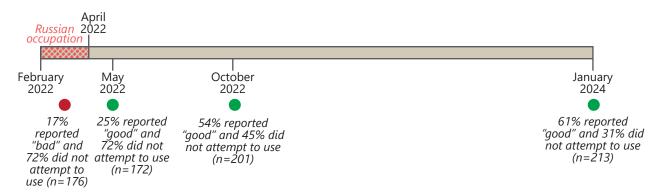


allowing mobile telecommunication to be accessible once more within a week (FGD).

As of January 2024, telecommunication was functioning though with occasional cuts (FGD).

Services

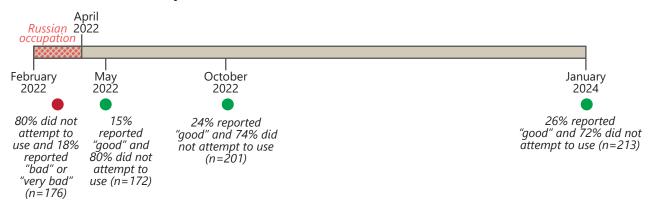
Administrative services functionality in Trostianets



After Ukraine regained control, administrative facilities were lightly damaged, and many people immediately submitted claims to the service for documents such as compensation for destroyed housing. Administrative services reportedly resumed within two weeks as 80% of the staff immediately went back to work, although they were limited in what they could accomplish without computers. Administrative services progressively improved, with some even reporting that the quality was better than before the occupation (KI). The only issues reported by FGD participants were that administrative services did not share enough information on how and when services would be delivered and that they could not apply for compensation for destroyed property before going through lengthy administrative process to prove ownership of the property.

As of January 2024, a very large variety of administrative services were provided, including mobile teams reaching rural settlements and non-mobile people. However, it was reported that administrative facilities were not sufficiently accessible (premises were too small and not adapted for people with visual impairments) and the absence of digital queueing systems led to overcrowded facilities as people had to go in-person to the premises. Staff of administrative services were in need of psychological training as the provision of new services related to the impact of the war, such as support to veterans, requires trained specialists (KI).

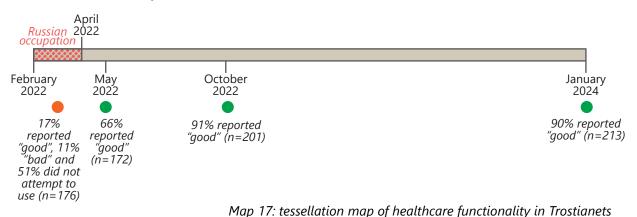
Social services functionality in Trostianets



After Ukraine regained control, social services resumed immediately to provide humanitarian assistance and to create new collective sites for IDPs. However, the shelter for survivors of domestic violence was damaged, and an absence of transportation meant people from rural settlements could not access services.

As of January 2024, a wide variety of social services were provided, including mobile teams to reach non-mobile people. Social services were functioning to their full capacity, fully staffed and fully restored (KI).

Healthcare functionality in Trostianets

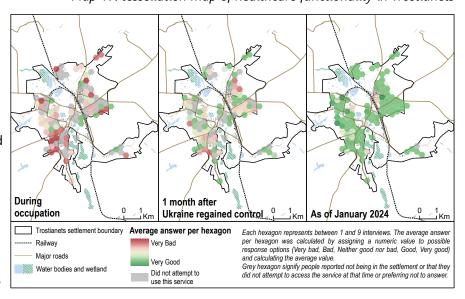


During occupation,

access to healthcare was possible but limited, with the hospital still functioning despite damages and looting from Russian forces (FGD). Pharmacies were either closed or destroyed (FGD).

After Ukraine regained control,

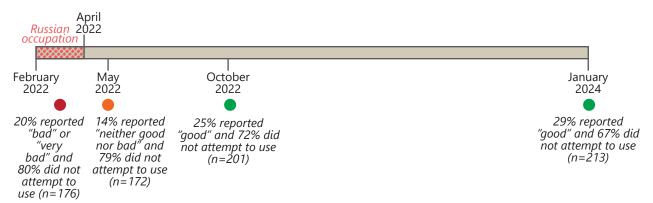
first level medical care, some surgical care, psychologists and mobile teams to neighbouring settlements were functioning,



despite damaged or destroyed facilities (KI). However, because the hospital was destroyed, not all healthcare services were immediately available (FGD). While Trostianets' hospital was being restored, a humanitarian organization deployed a temporary hospital next to it to ensure continuity of services. Restoration of facilities was reportedly very quick, with small protective structures to protect from air attacks installed in facilities, and the opening of paramedic stations in rural settlements (KI). One pharmacy was open but there were not enough medicines for everybody, especially drugs to treat cancer, diabetes and hypertension (KI). There were long queues in pharmacies, although medicines were distributed for free (FGD).

As of January 2024, first level medical care, including outpatient clinics in rural settlements, as well as hospitals were also reportedly functioning, with MHPSS provided to children. All specialists were reportedly available, with the planned construction of a new healthcare centre to centralize all services (FGD). Mobile teams from humanitarian organizations, ambulances and specialized transport within the hromada were also operating. Some issues were identified however. One medical facility did not have its own source of water, and some outpatient clinics in rural settlements had yet to be restored (KI). Reported barriers to accessing healthcare included facilities not being sufficiently accessible (too far away and not accessible by public transport) and healthcare being too expensive (FGD). Medicines were available but still unaffordable to most people (KI).

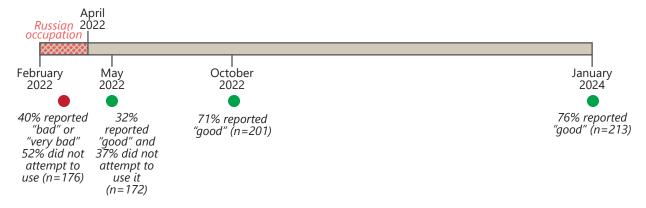
Education functionality in Trostianets



After Ukraine regained control, education immediately resumed online (KI) with local authorities providing electronic equipment for students (FGD). Some in-person education resumed in September 2022 after shelters in educational facilities were repaired.

As of January 2024, education was conducted both in-person and online. Almost all primary schools resumed in-person, with secondary education provided in-person on a rotating basis. However, shelters in educational facilities were reportedly not big enough to accommodate all staff and students (KI), so further construction of shelters was underway. Some damaged facilities were still being restored at time of data collection (KI).

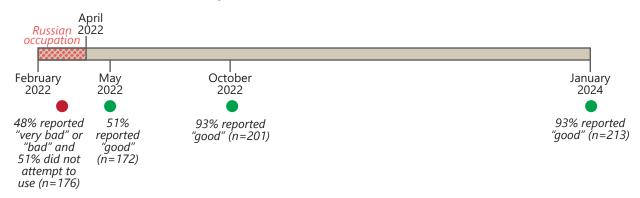
Public transport functionality in Trostianets



After Ukraine regained control, between 80% and 100% of the fleet of vehicles was destroyed or stolen (KI), making public transport unavailable (KI). Drivers reportedly restored two buses at their own expense to quickly resume at least the route to the hospital (KI).

As of January 2024, one key informant representing utility companies reported public transport was about 70% operational compared to pre-war level, but was enough to meet all the needs of local residents. Some residents felt that the functionality of public transport was actually better than it was before the war, with plans to open new routes underway (KI/FGD). FGD participants expressed great satisfaction in the way the service was restored, specifically that new, more comfortable buses were acquired and that local authorities immediately addressed issues with the schedule of public transport when it was raised by local residents. On the other hand, other key informants and FGD participants reported issues including longer wait times, fewer routes, lack of a reliable schedule, and lack of staff.

Financial institutions functionality in Trostianets



Neither key informants nor FGD participants mentioned financial institutions in their interviews.

Postal services functionality in Trostianets



As of January 2024, participants of one FGD reported many workers were fired and the service was not functioning well.

Shops and markets functionality in Trostianets

During occupation, no shops were functioning. Destruction and theft were common problems, according to residents, resulting in shortages of key commodities (FGD) - although some other FGD participants reported bread could be bought at a mobile bakery.

After Ukraine regained control, shops and markets reportedly reopened immediately.

Other reported issues

During occupation, issues related to shelling and movement restrictions were mentioned, with reported incidents involving targeting of civilian cars (FGD). FGD participants who remained in Trostianets during occupation reported constant shelling discouraged people from leaving houses, and made it difficult to go out to buy food.

After Ukraine regained control, humanitarian assistance was immediately delivered to the city, and people relied on this assistance to meet their basic needs. Some residents reported the lack of lack of information on where, how and what they could receive in terms of humanitarian assistance (FGD). Demining operations started immediately (FGD), though without proper equipment: one utility provider reported that workers used rakes tied to a rope to sweep through possible minefields and lay cables to restore the utility (KI).

Key informants reported extensive loss and destruction of critical equipment that affected shops and markets, healthcare facilities, administrative services and public transport. Similarly, among other things, the loss of medical records, internet equipment, and the destruction of equipment for centralised water and solid waste management, including vehicles, greatly impeded the capacity of utility companies to repair and resume services.

As of January 2024, mines remained a concern in Trostianets (FGD). Houses were still in need of repair

or reconstruction though the municipality already had enough funds to restore destroyed multistorey buildings (KI), and it was reportedly harder to find a job than before the war (FGD). Regarding the financial situation, utility companies reportedly faced financial issues and were being subsidized from the local budget (KI). The price of water and electricity had doubled since the start of the war (FGD).

2.4 Population movement relating to service and utility functionality

Factors influencing the decision to remain

Common reported reasons for having stayed in Izium, Kherson or Trostianets since the start of the war included taking care of relatives or not having someone or somewhere to go (FGD). Some FGD participants also reported wanting to leave at some point but not being able to do so, with conflict preventing evacuations or because they did not have the financial means to leave. Access to utilities or services was not mentioned as a factor influencing the decision to remain in any of the FGD, with FGD participants specifically mentioning security risks associated with the evacuation process as a much more important factor encouraging them to remain in their places of habitual residence.

Factors influencing leaving

For the 142 interviewed households who reported having left their habitual place of residence for at least two weeks, nearly all respondents (96%) reported armed conflict in the area as one of the main factors influencing their decision to move. Other frequently reported reasons included threat to personal safety (30%), damaged or destroyed housing (30%) and psychological well-being (23%). Loss of or reduced access to utilities or services was reported by a minority of participants only (13% each), and some participants specifically mentioned that the security situation was a much more important factor than access to utilities and services. This data is supported by FGD with returnees, where shelling and conflict were the most commonly reported reasons for leaving, alongside the destruction of respondents' homes, being offered evacuations, and the establishment of evacuation routes with temporary ceasefires allowing for safe evacuations.

FGD participants reported leaving both during occupation and after Ukraine regained control in all three settlements, with the latter being especially true in Kherson (FGD). This highlights the fact that experiences of returnees and IDPs across all three settlements are not uniform, as some – like non-displaced – will have experienced the entire period of occupation.

Reported reasons for returning

It was found that people mostly returned to their habitual place of residence only after Ukraine regained control, as early as a month after. Commonly reported reasons for returning included the city being their place of habitual residence, reuniting with relatives, perception of safety, and not being able to afford being displaced (FGD/ household interviews). Interviewed IDP households also reported that proximity to their habitual place of residence was a pull factor influencing their decision on the city to which they displaced.

Figure 1: reported reasons for coming (back)

The satisfactory functionality of utilities (especially gas, heating and centralized water) and services was also mentioned by some FGD participants, who reportedly sought information on utility and service functionality before making their decision to move - although, as it can be assessed from a minority of households reporting it as a factor influencing their movement decisions, it was not amongst the most common reported reason for coming back. Their main source of information was neighbours and relatives – although in Izium, FGD participants reported they were unsatisfied with the insufficient amount of information they got. However, FGD and household-level interviews highlighted the fact that this was true only for a minority of households, as only 6% of the 142 households reported that utility or service being accessible at destination impacted their movement decision.

Change in household composition

2 3 4

Most FGD participants reported that their household composition had not changed since the start of the war, but some participants reported that they sent their children to safer locations to access education or that pregnant women left their habitual household to access healthcare. Other participants reported people temporarily combining of households, such as reports of dozens of people living together in basements during the occupation in Izium (FGD).

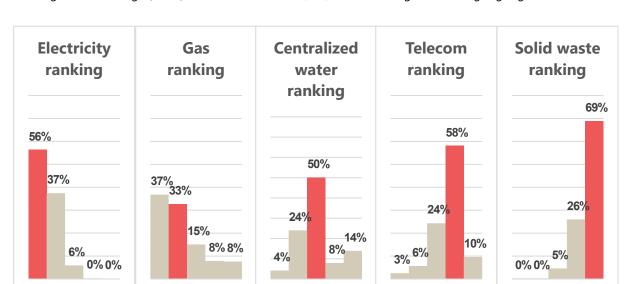
2.5 Prioritization and decision making

2 3

4

As it can be assessed from the restoration process, not all utilities and services have been restored simultaneously. Certain services were restored in priority, and even then the restoration of utilities and services to certain areas or groups was prioritized over others. In all three cities, electricity was the first utility to be restored, with centralized water restored second. Electricity was indeed reported to be essential to the functioning of other utilities and services and therefore the first to be restored (KI). The third priority was gas in Izium and heating in Kherson. In Trostianets, removal of trash was also prioritized to avoid health issues while in Izium, heating was restored in priority as winter was approaching (KI). This prioritization matches with what interviewed households reported as the most important utilities and services for them.

Households across the three settlements were asked to rank **utilities** by order of importance from one to five, with one being the most important service for their household. A majority of households ranked **electricity first** (56%), followed by **gas** (48% ranked gas as the second most important), followed by **centralized water** (50%), **telecommunications** (58%) and finally **solid waste management** (69% ranked this last).



2 3 4

Figure 2: ranking of the five assessed utilities (1-5), with its assigned ranking highlighted in red

2 3

4 5

2 3 4

Households across the three settlements were also asked to rank **services** by order of importance from one to seven, with one being the most important service for their household. The majority (65%) ranked **healthcare** as **the most important service** for their household, **followed by public transport** (chosen in the top 3 by 57% of households), **financial institutions** (58% ranked this second or third), **postal services** (71% ranked this third, fourth, or fifth), **administrative services** (73% ranked this fourth, fifth, or sixth), **social services** (54% ranked this sixth or last)⁴, and finally education (ranked as least important by 63% overall, though it is the most polarizing service: education was ranked first by 8% of households, the third highest proportion after healthcare and public transport. This variance is likely driven by whether or not the household has children and needs access to education.

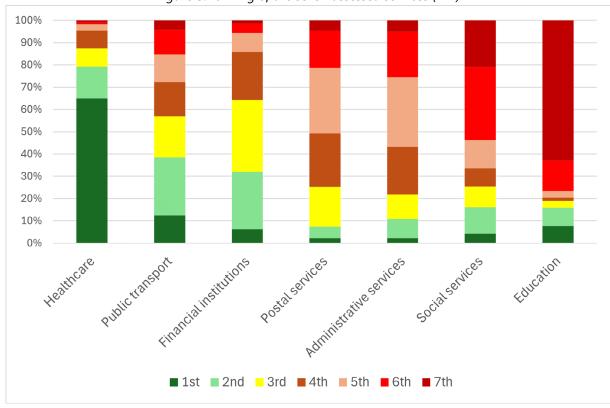


Figure 3: ranking of the seven assessed services (1-7)

Regarding where and to whom utilities and services were restored first, population density was taken into account when deciding where to restore first in Izium and Trostianets, with utilities and services being restored in priority to densely populated areas (KI). In Kherson, electricity was restored in priority to facilities providing services (healthcare, administrative, financial); and in Trostianets, the restoration of in-person education (especially preschools) was identified as a priority, to allow parents to go back to work (KI). Regarding public transport, in Trostianets, restoring routes to the hospital and workplaces were prioritized, and routes to rural settlements were restored only after the restoration of routes within the city (KI). In Kherson and Trostianets, key informants felt that priorities were set correctly, and that the restoration was effective and quick.

In Kherson and Trostianets, six key informants reported decisions were made in coordination with local authorities. Three key informants in Kherson specifically mentioned that there was no consultation of local residents, either because residents were believed to be tired, because public discussions could not be held due to lack of electricity and internet, or because such consultations would take too much time. The absence of consultation with local residents reportedly led to tensions in Trostianets, where local residents reportedly found the restoration of public transport to initially be an unnecessary expense (KI).

In Kherson, local authorities reached out to regions of Ukraine that were occupied by Russia in the early months of the war but had since been regained by Ukraine, to draw from their experience and success in restoring utilities and services.

4 It should be noted that 16% of households ranked social services as the first or second highest priority service, highlighting the unequal importance of social services depending on household composition.

Cross-city overview: utility and service functionality and impact on movement intentions

Occupation was experienced differently across Izium, Kherson and Trostianets. While most utilities and services were reported to be functioning for most of occupation in Kherson, Izium and Trostianets were faced with near complete breakdown of all utilities and services when Russian forces retreated. The overall security situation and extent of destruction was much worse in Izium than in other settlements: in Izium, out of the 71 households who reported having left their place of habitual residence since the start of the war, just over half (55%) reported that one of the main factors was damage/destruction to their housing, significantly higher than in Kherson (1 out of 25 households) or Trostianets (2 out of 46 households).

However, all three cities were faced with the same challenges when Ukraine regained control, with no utility or services functioning due to extensive destruction. Two notable exceptions are gas and healthcare, which remained functioning in Trostianets, Kherson and some neighbourhoods of Izium throughout occupation and when Ukraine regained control of the settlements. Looting and destruction of equipment were reported as a major issue in all three cities, further impacting utility and service functionality as well as their capacity to recover quickly.

As of January 2024, the three cities are on different recovery paths:

In Trostianets, utilities and services have mostly recovered to pre-war levels and are able to meet most needs: school resumed in-person, administrative and social services are functioning in full force, and most utilities are provided without interruption. One exception is wastewater management, which remains problematic. The security situation reportedly did not influence people's decision to leave the settlement after Ukraine regained control, with only 2 out of 46 households reporting threats to personal safety as a factor influencing their decision to move, compared to Izium (29 out of 71) and Kherson (12 out of 25).

In Izium, the functionality of utilities and services has reportedly greatly improved since Ukraine regained control. Most are functioning now, although they are not able to meet all needs. For example, there is insufficient public transport, long queues to access administrative or financial services, and cuts to centralized water and telecommunications.

In Kherson, while utilities and service functionality have improved since Ukraine regained control of the city, it remains highly problematic as of today. Constant shelling disrupts all utilities and services. Shops and markets are closing early to avoid shelling in the afternoon, healthcare is provided in basements, utility workers are injured when trying to repair damaged utilities, and generally people avoid going outside and accessing services unless absolutely necessary.

The functionality of utilities and services apparently influenced the movement decision (and composition) of some households, although data from household interviews and FGD indicate that this is more marginal than a widespread trend (only 7% of households reported service functionality impacted their movement decisions). The security situation appears to be more important to most residents than anything else, and if it is unsafe to leave, people will remain regardless of utility and service functionality. It should however be noted that utilities and services functionality have a greater influence on decisions to return – alongside not having enough money to remain displaced, which was identified in other REACH reports along frontline hromadas.

REACH frequently assesses hromadas 0-20km from the frontline; partners interested in REACH's frontline assessments can reach out to REACH as they are shared bilaterally due to their sensitivity.

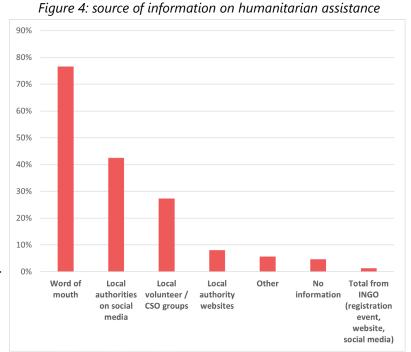
3. Access to information and assistance received

3.1 Access to information on humanitarian assistance

Source of information on humanitarian assistance

Across the three settlements, households reported receiving information on humanitarian assistance mostly through word-of-mouth (77%), local authorities on social media (43%) and local volunteers (28%), with almost no households reporting receiving information directly from any international organizations (1%).

Kherson is the city where the most households reported not having access to information (12%). Similarly, very few reported relying on local authorities for information (21%), compared to Izium (56%) and Trostianets (50%). Local volunteers were a frequent source of information in Kherson (46%) and Izium (33%) however, compared to Trostianets (3%).



FGD participants reported receiving

some information on humanitarian assistance, although sources varied a lot depending on the settlement:

- In **Izium**, some people received information from local authorities on Telegram channels, although most reported receiving information from sources other than local authorities such as local residents on Telegram channels or word of mouth. Other participants explicitly reported not receiving information from local authorities.
- In **Kherson**, access to information was more varied. Some FGD participants explicitly mentioned not receiving information from local authorities, although others disagreed and reported receiving information from local authorities on their Telegram channels or websites. Others reported receiving information from other sources including from local residents on Telegram channels and from calling the utility providers' hotlines directly.
- In Trostianets, people received information from local authorities through many sources: on the local TV channel, on their website, on the local radio, on social media, or in-person during townhall meetings in smaller villages where local authorities come themselves to share information. Information was also reportedly shared through word of mouth and from local residents on Telegram channels.

Satisfaction with level of information on humanitarian assistance

Across the three cities, 83% reported being satisfied or very satisfied with their current access to information on humanitarian assistance, with only 13% being unsatisfied and 2% very unsatisfied. Levels of satisfaction vary between settlements:

- In Trostianets, nearly all were satisfied (94%).
- In Izium, many were satisfied (62%) or very satisfied (29%).
- In Kherson, over a quarter were unsatisfied (26%) or very unsatisfied (6%), with 60% being satisfied.

Reasons for dissatisfaction across the three settlements included lack of information on where assistance would be provided (71%), on when it would be provided (48%), and on how to register (31%). Word of mouth as source for information was reported in all three settlements, but IDPs reported this information was slow to reach them as they were new to the city and had to insert themselves in local networks.

3.2 Access to information on utilities and services functionality

Source of information on utilities and services functionality

Across the three settlements, 60% reported receiving information on utilities and services functionality through word-of-mouth and 42% on social media, showing the importance of people-to-people communication as the main source of information. Word-of-mouth is especially prevalent in Trostianets (65%) and Kherson (78%), whereas in Izium fewer people reported getting information through word-of-mouth (37%), with 40% relying instead on utility providers directly (discussing the functionality in-person with them or when they leave notices on households' doors), online media (32%) and television (22%).

Satisfaction with level of information on utilities and services

Overall, across the three settlements, 93% reported being satisfied or very satisfied with their current access to information on utilities and services, with only 6% being unsatisfied or very unsatisfied.

FGD participants in all of the three settlements also reported satisfaction with their current access to information on restoration of utilities and services, with participants in Izium and in Trostianets specifically mentioning they have enough information. Only in Kherson did participants report dissatisfaction, with participants complaining that they cannot access information provided online when there is no internet or electricity, that information is provided street by street but the streets are being renamed so it is confusing, and that it is difficult to find relevant information online because there is simply too much information. Participants also reported that older persons specifically have more difficulties accessing information that is published online, and suggested local authorities should provide information in public places such as shops and markets.

3.3 Assistance received and satisfaction

While REACH did not directly ask questions related to the assistance received from international actors, across all three settlements, a variety of key informants spontaneously commented on the assistance they received from international actors during the restoration process - both humanitarian assistance, and assistance to restore utilities and services. Commonly reported assistance received from international actors (INGOs, UN agencies, foreign governments) included:

- · Vehicles, including public transport vehicles, school and social buses for rural hromadas
- Specialized equipment for utilities and services
- Medicines and medical equipment
- Financial support in Kherson and Trostianets, but not in Izium
- · Heavy machineries, including bulldozers, excavators and garbage trucks
- Items for online learning such as computers, electronics and school supplies (in Izium and Kherson)
- Support in creating places of socialization for children who do not attend in-person education (in Izium and Kherson)

Overall, a majority of key informants in the three cities reported being satisfied with the assistance to restore utilities and services they received from international organizations, noting that the assistance provided was good and relevant, that it met most or all the needs expressed, or was provided in a timely manner.

However, some key informants reported some level of dissatisfaction with it:

In **Izium**, key informants reported that while international partners pledged funding for restoration, full-scale reconstruction can only be undertaken once the war is over.

In **Kherson**, key informants reported issues relating to the humanitarian assistance and assistance to restore utilities and services not being provided in a timely manner, and that immediately after the settlement was liberated, humanitarian assistance flooded the city and overwhelmed local residents as organizations providing the humanitarian assistance did not understand well the people's needs (this issue was reportedly solved as of the interview, with assistance being provided in a more targeted and efficient manner). Other key informants confirmed that Kherson received a lot of humanitarian assistance immediately after Ukraine regained control of the settlement, however the trend reversed and as of January 2024, they were receiving much less humanitarian assistance due to the security situation (FGD participants expressed a similar view). In Izium and Kherson, key informants reported that because the utility company they represent is not state-owned, they feel they did not receive as much assistance to restore utilities and services as others. Similarly to what was reported in Izium, key informants in Kherson reported that international organizations were not fully involved in reconstruction yet because Kherson is still a frontline city.

In **Kherson**, one local authority representative reported some dissatisfaction related to the perception that international organizations are delivering humanitarian assistance only to vulnerable groups (such as IDPs, older persons, women, and persons with disabilities), and the wider population is left out or underserved by humanitarian assistance despite having similar needs.

In **Trostianets** specifically, FGD participants expressed satisfaction with the humanitarian assistance and assistance to restore utilities and services received, noting their opinion that the city had received more support from international organizations than other regained settlements (especially the neighbouring city of Okhtyrka) thanks to the advocacy effort of local authorities.

Regarding satisfaction in coordinating with international organizations, for the key informants who reported being directly engaged with international organizations across the three settlements, most key informants reported being satisfied with their engagement, mainly thanks to good and regular communication. Only one key informant in Izium mentioned some degree of dissatisfaction, noting that they were sometimes confused by the large number of organizations reaching out to them.

4. Looking forward: remaining challenges and assistance needed

4.1 Izium

Remaining challenges

In Izium, 43% of households reported issues accessing services as of January 2024, with concerns mostly related to financial institutions (44%), healthcare (41%), public transport (41%), and administrative services (35%). The access challenges included premises being too far away (69%), long queues (60%), and lack of information on accessing services (28%).

Specifically, for the problematic services:

59% of households who reported using **healthcare** in the past three months reported being unsatisfied or very unsatisfied (n=125), with the) main issues being the quality (88%) and accessibility (38%) of the service.

73% of households who reported using **administrative services** reported being unsatisfied or very unsatisfied (n=71), with the main issues being the quality (65%), lack of information (58%) and long waiting times both for service (46%) and on-site (48%).

52% of households who reported using **public transport** in the past three months (n=164) were unsatisfied, with issues related to long waiting times (61%) and insufficient quality (47%).

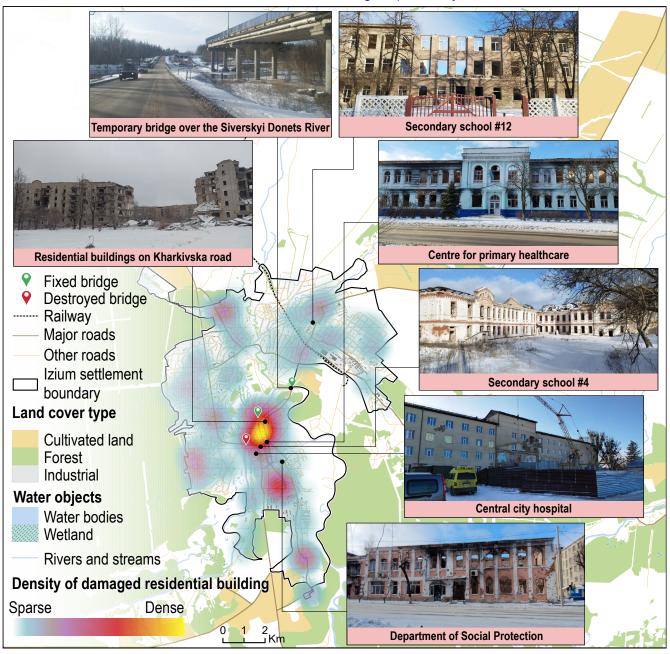
Households who used **financial services** in the past three months (n=159) reported different levels of satisfaction with 46% being satisfied or very satisfied and 43% being unsatisfied. The main reported issues were long waiting times (65%) and premises being too far away (85%).

While few households had used education services in the past three months (n=34), 74% reported being unsatisfied or very unsatisfied.

When asked which three utilities should be restored first, 77% of local residents reported all utilities were already functioning, with 13% reporting solid waste should be restored in next, 6% choosing gas and 5% choosing centralized water.

When asked which three services should be restored first, only 23% of local residents reported that all services were functioning. Forty-three percent chose healthcare as the most important service to be restored, followed by public transport (35%), financial institutions (26%), education (22%) and administrative services (21%).

Map 18: damage to residential housing and infrastructures in Izium, with data from REACH <u>Damage Impact Analysis</u>



Assistance needed

When asked about the most useful assistance to receive in the next six months, key informants in Izium reported the need for early recovery and reconstruction support including the following:

- Financial support to buy radiators (for around 6,000 households) and new pipes in order to restore heating, especially in educational facilities
- Material and financial support to restore private houses and encourage people to return
- Manpower to restore utilities, especially for the centralized water and heating utility companies
- Vehicles for public transport and utility and service companies
- · Equipment and financial support to restore centralized water
- Financial support to restore damaged bridges
- Equipment to restore internet networks
- · Therapeutic beds and insulin for healthcare facilities
- Demining, especially around power lines

4.2 Kherson

Remaining challenges

In Kherson, 46% of households reported issues accessing utilities or services. 84% reported issues accessing electricity, 40% issues accessing telecommunications and 34% accessing centralized water. Thirty-six percent reported issues accessing healthcare, 14% accessing administrative services, and 13% accessing education. In Kherson, challenges accessing utilities and services relate to households not being able to afford them (45%), long waiting time on site (34%) and not having enough information on how to access the service (14%).

Specifically, households who reported using administrative services in the past three months had mixed satisfaction, with 58% being satisfied or very satisfied and 42% being unsatisfied or very unsatisfied because of long waiting times on-site (65%) and poor quality of service (50%). Fifty-five percent of households who had used education services reported being unsatisfied and another 10% were very unsatisfied.

When asked about which three utilities should be restored first, only 28% of local residents reported all utilities were functioning. Sixty-eight percent felt that electricity should be restored first, followed by telecommunications (47%), and centralized water (37%).

When asked which three services should be restored first, only 21% of local residents reported all services were functioning. Fifty-nine percent chose healthcare as the service that should be restored first, followed by financial institutions (27%), public transport (26%), and administrative services (24%).

Assistance needed

When asked about the most useful assistance to receive in the next six months, in Kherson key informants reported both humanitarian assistance and early recovery support:

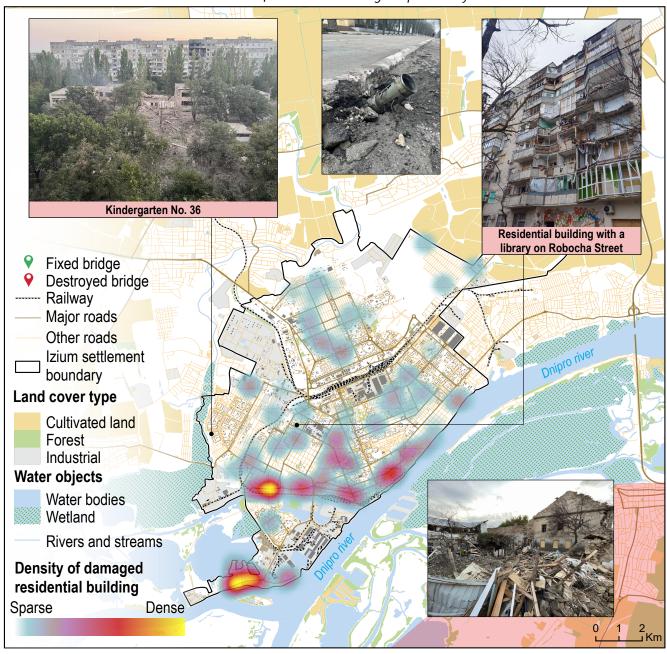
- Food assistance and non-food items such as hygiene items and generators for families whose houses were flooded <u>after the destruction of the Kakhovka dam</u>
- Materials and manpower to repair damaged utilities (especially boilers and pumps for heating)
- Equipment to restore or modernize the centralized water, including support to restore water quality testing laboratory
- Electric cables
- Financial support to keep utilities (especially centralized water) and services (especially education and healthcare) running



- Vehicles for public transport and utility and service companies
- Electronics for online education
- Fuel for generators
- Material and financial support to restore private houses

One healthcare representative suggested a unified register of all humanitarian assistance available should be created to keep track of what local residents can receive.

Map 19: damage to residential housing and infrastructures in Kherson, with data from REACH Damage Impact Analysis



4.3 Trostianets

Remaining challenges

In Trostianets, 13% of households reported facing issues accessing services, with 56% reporting issues accessing gas and 22% accessing electricity. Thirty-three percent reported issues accessing postal services, 19% accessing healthcare, and 15% accessing public transport. Challenges related to accessing utilities and services included households not being able to afford services (63%), and premises being too far away (44%) or lacking accessibility for persons with limited mobility (26%).

The large majority (over 90%) of households who reported accessing services in the past three months reported satisfaction with all except postal services. Twenty-six percent were dissatisfied with postal services due to insufficient quality of the service (78%), premises being too far away (67%) and lacking accessibility for persons with limited mobility (52%).

When asked about which utilities should be restored first, 92% of local residents reported all utilities were functioning and 4% reported that centralized water should be restored first.

When asked which services should be restored first, the majority of local residents (87%) reported all services were functioning, with 7% mentioning postal services and 4% healthcare.

Assistance needed

When asked about the most useful assistance to receive in the next six months, in Trostianets, key informants mostly reported needing reconstruction and development support:

- Financial support to repair centralized water and damaged wastewater collectors
- · Vehicles for utility and service companies
- Material and/or financial support to restore private houses
- Support to install motion-sensors for streetlights
- · Heavy machinery such as garbage trucks
- Additional MHPSS services for children
- Support to repair damaged facilities, especially healthcare and educational (including building shelters in the latter)

Cross-city overview: remaining challenges

Use of services in the past three months

Services most commonly used in the past three months do not match the ranking of most important services according to interviewed households (reported in **Chapter 1.5**). Across the three settlements, services most commonly used are public transport (75%) and financial institutions (71%), with healthcare third (57%) and Administrative services, social services and education were used by a minority of respondents: 24%, 19% and 19% respectively.

Some services were used in similar proportions across all three settlements (between 50-60% of interviewed households accessed healthcare and 15-23% accessed education across all three settlements); on the other hand, administrative services were used by many more households in Izium (32%) and Kherson (29%) than in Trostianets (10%), and social services by many more households in Izium (34%) than in Kherson (14%) and Trostianets (7%). Possible explanations include that ongoing reconstruction in Izium and Kherson might have led more people to submit claims to restore documents or housing than in Trostianets, and that there were proportionally more older persons in Izium and Kherson than in Trostianets, leading to more people using social services. Indeed, households with older persons were more likely to report having used social services in the past three months (26%, compared to 8% for households without older members). Households with older persons were also more likely to use healthcare (62%) than those without (50%).

Remaining challenges

As of January 2024, across the three settlements, 34% of interviewed households reported difficulties accessing utilities or services, although a higher percentage of households in Izium and Kherson (43% and 46% respectively) reported facing issues, and Trostianets, where only 13% reported this. Electricity (41%) and healthcare (36%) presented the most challenges according to those households, followed by administrative services (22%), banking institutions (22%), and public transport (21%). Most commonly reported issues accessing utilities or services included long waiting time on site (42%), the utility or service not being affordable (41%), and premises being too far away or not sufficiently accessible for persons with limited mobility. The issue was particularly true for older persons, with households with an older member being more likely to report premises being too far away.

The least accessible services and utilities were not the same across the three settlements, however. In Izium, households mainly faced issues accessing financial institutions, healthcare and public transport, with premises being too far away or waiting times too long, while in Kherson and Trostianets, households reported issues with utilities, especially electricity, telecommunications and centralized water in Kherson, and gas in Trostianets. Interviewed households in both settlements most frequently reported issues related to the unaffordability of utilities and services.

Relevant assistance for upcoming months

When asked about the type of assistance that would be most useful in the next three months, across all three settlements households mainly reported food kits (51%), hygiene items (45%), medicines (37%), solid fuel (23%) and shelter repair kits (22%). While food items were reported to be needed in similar proportions across all three settlements (between 42% and 57%), for other kind of assistance it varied across the three settlements:

- In Trostianets, 30% of households reported that they do not need any assistance.
- Hygiene items are needed in Izium (72%) and Kherson (52%), but only for one tenth of households in Trostianets.
- Solid fuel is needed in Trostianets (32%) and Izium (32%), but not in Kherson (5%) where people reported the need for electric heating systems (36%).
- Shelter repair kits are needed in Izium (38%) and Kherson (21%).
- Medicines are needed across all three settlements, however in higher proportion in Kherson (47%) and Izium (43%) than in Trostianets (23%).
- The need for psychosocial support was mostly reported in Kherson (9%), coherent with FGD participants mentioning the psychological strain constant shelling is putting on local residents.

Regarding the modality of assistance, two-thirds of respondents (66%) across all three settlements reported they would prefer to receive assistance in cash, especially in Izium (87%). In Kherson, while half of the households also reported a preference for cash assistance (52%), in-kind assistance and assistance in the form of services (such as healthcare or education) were also reported as relevant modalities of assistance (65% and 44%, respectively). In Trostianets, 28% of households reported they do not want to receive humanitarian assistance in any form.

When asked about the most useful assistance to receive in the next six months, across all three settlements, key informants mainly reported the need for vehicles (both for public transport and for utility and services companies), material and/or financial support to restore private houses, and financial support and equipment to restore centralized water.

5. Lessons learned for current and future planning

5.1 Remaining challenges: lessons learned for current planning

In previous chapters, this report went over the functionality of utilities and services at different points in time in Izium, Kherson and Trostianets, looking at how they have been restored, and remaining challenges. A comparative reading of the analysis so far shows that while the three cities experienced similar situations when Ukraine regained control – namely, extensive destruction, theft and disruption of utilities and services – their experience during occupation and process to recovery has been different.

Izium experienced the most destruction, and the lowest levels of utilities and services functionality of all three settlements at the time Ukraine regained control (**Chapter 2.1**). Utilities and services have been mostly restored since Ukraine regained control and challenges now mostly relate to improving their functionality with better (and more) equipment (**Chapter 4.1**). While around a third of local residents still report they can only "sometimes", "rarely" or "never" meet their daily needs because of this, the city can be understood as having moved towards a reconstruction phase.

Figure 6: frequence at which households in Kherson are able to meet their everyday needs

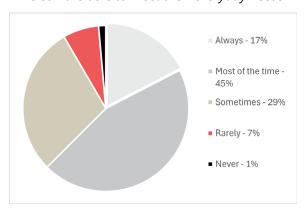
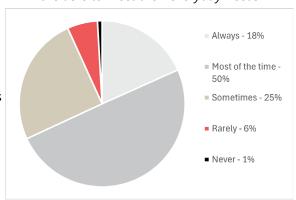


Figure 5: frequence at which households in Izium are able to meet their everyday needs



Kherson experienced little destruction throughout most of Russian occupation as a city further away from the frontline, but in the two weeks leading to Ukraine regaining control the city experienced widespread theft and destruction, damaging utilities and services (Chapter 2.2). Ever since, Kherson has been a frontline settlement, shelled daily by Russian artillery which repeatedly damages utilities and services. The city is still in an early recovery phase, with most utilities and services having limited functionality and in need of repair or reconstruction, leading to only 17% of residents reporting they "always" meet their daily needs (Chapter 4.2). The city is however unequal across

neighbourhoods, with coastal regions and the Korabel district being the most severely impacted by shelling and therefore facing the greatest disruption to utilities and services.

Trostianets experienced extensive destruction during the short time it was under Russian occupation, with utilities and services not functioning when Ukraine regained control (Chapter 2.3). The settlement quickly recovered however, and as of January 2024, no specific challenges were reported regarding utilities and services functionality, or humanitarian needs as almost all residents reported being able to meet their daily needs all or most of the time (Chapter 4.3). Future priorities reported by key informants and residents, such as modernization of the centralized water system, opening of new routes for public transport, and construction of a new medical centre centralizing all departments in one place, indicate that Trostianets is now in a development phase.

Figure 7: frequence at which households in Trostianets are able to meet their everyday needs

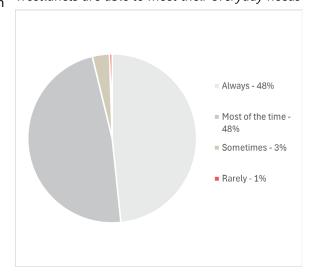
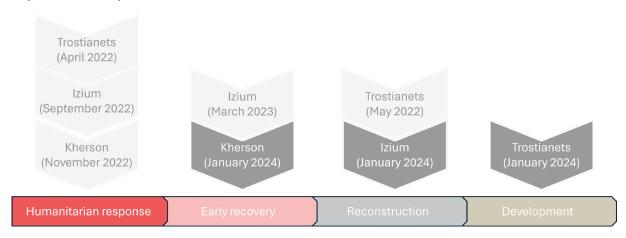


Figure 8: the different response phase in urban centres regained by Ukraine, from humanitarian response to development



This timeline illustrates the main challenges each of the three settlements face as of January 2024, and to which phase they most closely relate. However, in all of the three settlements, a majority of residents still reported the need for food assistance, including in Trostianets where livelihoods have not fully recovered and people remain reliant on assistance – albeit in lower proportion than in Izium or Kherson. Similarly, despite being an issue most closely related to reconstruction, wastewater management remains problematic in Trostianets as the network still has not fully recovered from destruction in March and April 2022. The ability for people to meet their basic needs can also shift depending on the security situation. Utilities and services functionality initially deteriorated in Kherson after Ukraine regained control of the settlement due to the deterioration of the security situation. Similarly, in January 2024, a greater percentage of households in Trostianets than in Kherson reported that over the past 12 months, it became more difficult to meet their basic needs.

5.2 Restoration process: lessons learned for future planning

One of the main objectives of this report is to identify lessons learned to inform future planning in the event of Ukraine regaining control of more settlements – and more broadly, for any actors interested in early recovery following urban warfare and a total collapse in functionality of utilities and services. As mentioned in **Chapter 0.1**, Izium, Kherson and Trostianets were specifically selected to allow for comparison, highlighting the specific challenges a small-sized city (Trostianets), medium-sized city (Izium) or large-sized city (Kherson) can face. At the time of writing, several large urban centres comparable to the three assessed cities remain under Russian control, such as Starobilsk (Luhansk oblast, pre-war population of 15 947, Tokmak (Zaporizhzhia oblast, pre-war population of 29 573) and Mariupol (Donetsk oblast, pre-war population of 425 681). Lessons learned and the experiences of Izium, Kherson and Trostianets are meant to be leveraged to inform recovery efforts should Ukraine succeed in regaining control over more urban centres.

Lessons learned for future planning: utilities

Restoration of electricity was consistently prioritized immediately after Ukraine regained control of the three cities, with the utility being restored within a month. Indeed, the interconnectivity of utilities and services is a key lesson learned: access to electricity is essential to the functioning of other utilities (centralized water, telecommunications) and all services, and therefore needs to be restored as a top priority.

Gas and centralized water were usually restored immediately after electricity, also around one month after Ukraine regained control of the settlement. Other utilities (telecommunications and solid waste management) took longer to recover. This prioritization was coherent with what households reported as the most important utilities, with electricity being first, gas second and centralized water third (Chapter 2.5).

Lessons learned for future planning: services

Restoration of healthcare was prioritized over other services, even as healthcare remained functional to some extent during occupation in all three cities, as opposed to other services.

Once electricity was restored, other services appeared to be restored in parallel, without any specific prioritization. Online education could resume very quickly once electricity and telecommunications were restored – albeit with significantly worse functionality.

Administrative services also resumed quickly in Izium and Trostianets but not in Kherson, where shelling made it too dangerous for the administration to come back to the city until six months after Ukraine regained control.

Social services were quick to resume functioning as well, especially to engage in delivery and coordination of humanitarian assistance. Interviews with key informants and local residents suggest that prioritising the recovery of social services in the first few weeks after Ukraine regains control can enhance the relevance and effectiveness of humanitarian assistance being delivered. In Kherson, where social services took longer to restore, key informants reported large quantities of aid arriving in a short time frame and a lack of targeted beneficiaries. Local authorities also reported an apparent lack of coordination between humanitarian actors caused duplication and burdened local institutions and organisations with similar requests.

Public transport was one of the slowest services to recover as it needed a more expensive initial investment to reacquire vehicles destroyed or stolen during occupation. The slow recovery is detrimental to local residents, as public transport is a lifeline for people to access services; especially as **Chapters 1 and 2.4** demonstrate that older persons are more likely to remain during occupation and after.

Public transport is however not the only factor negatively impacting accessibility to services and restoration of utilities and services: many key informants reported that mines, frequent shelling if the city remains on the frontline, and the lack of vehicles (stolen or destroyed) slowed down recovery. Other key informants and FGD participants reported the physical risk taken by workers to restore functionality of utilities and services as they were in some cases working under shelling and performing demining activities themselves. This is especially concerning as key informants reported that these workers were not sufficiently protected when doing so, especially in Kherson where utility workers requested personal protective equipment but had not received it.

For all services in the three cities, the quick return of specialists after Ukraine regained control of the settlement was reported as crucial to quickly restore functionality – appearing even more important than the provision of relevant equipment, as some services were reported to resume functioning before the delivery of relevant equipment but not before specialists returned to work (Chapter 2).

Prioritization of healthcare is coherent with a large majority of households across the three settlements ranking it the most important service (67%). Public transport was the second most important service, demonstrating its importance despite its slower recovery in all three settlements. A key takeaway from the data in this report is the need for greater focus by international organisations and donors on restoring public transport after Ukraine regains control of a settlement, especially as key informants noted the lack of transport vehicles immediately after occupation. Utilities and services are not only interconnected within one city, but also across neighbouring settlements, with FGD participants frequently mentioning using public transport to access services in neighbouring settlements that are unavailable in their place of residence (Kherson residents went to Mykolaiv to access administrative and financial services when they were still unavailable in Kherson).

While similarities could be drawn across all three settlements regarding restoration process, the challenges utilities and services providers face at the time Ukraine regains control of the city also depend on external factors unique to the urban centres.

Lessons learned for future planning: duration of occupation

In **Kherson**, a regional centre occupied for almost nine months, traditional supply chains were broken as attempts were made to replace utilities and service providers with Russian ones. Shops and markets had to import products from occupied Crimea, leading to shortages and a decline in quality. The two

heating companies of Kherson were merged into one, leading to additional issues as people refused to come to work. Education services adopted, or were made to adopt, the Russian language and curriculum, hindering access for non-Russian speaking children or whose caregivers had concerns. Ukrainian telecommunication providers (and Ukrainian information in general) were banned. The curtailment of information flows can have a direct impact on the needs and safety of people, as pervious research has shown that access to safe and reliable information plays a critical role in civilians' ability to protect themselves.

Similarly, in **Izium**, the few shops and markets that were still open during occupation were eventually able to import a few products from occupied Kupiansk, but only accepted Russian money, forcing people to exchange Ukrainian currency to Russian at very unfavourable exchange rates (FGD). Russia also changed the Ukrainian system of family medicine to the one in Russia –although it was not immediately clear from interviews what was the impact on the quality, accessibility or affordability of services (KI).

Russia's occupation of **Trostianets** being much shorter, these sorts of issues were not reported by key informants or FGD participants.

This report seeks to inform planning for recovery of settlements currently occupied by Russia but which might be regained by Ukraine in the future. As of April 2024, these settlements would have spent over two years under occupation, meaning the challenges described above are likely also present and more severe.

Lessons learned for future planning: geography of the settlement

The geography of the settlement also impacted the restoration process of utilities and services. In particular, the weather and bodies of water impact recovery.

As seen in Izium, for cities with a river flowing through, the destruction of bridges negatively impacts access to services and utility networks. Pipes and cables that passed through the bridges are sectioned, and emergency vehicles such as fire trucks and ambulances are either cut off entirely or need to take a long detour. While temporary bridges have been set up, they do not always allow for the passage of heavy machinery.

Weather, especially winter conditions, plays a role in deciding which utility to restore first. In Izium and Trostianets, where winters are usually colder than in Kherson (see REACH cold spot risk assessment), restoring heating was identified as one of the main priorities – especially as Izium was liberated just before winter, in September 2022.

Lessons learned for future planning: impact on vulnerable groups

Finally, it should be noted that some members of the population are affected differently when it comes to the impact of utilities and services functionality on needs and movement intentions:

Children are more affected by the absence of utilities and services, either because resources and facilities dedicated to children were destroyed, because they do not have place of socialization, they cannot attend school when there is no electricity or internet, and they do not have access to specialized healthcare such as paediatricians or mental health and psychosocial support (KI)

People with limited mobility are more affected, because they need to rely on others to fetch water (when centralized water is not functioning) and food and non-food items (when social services are not functioning) and after restoration, some services are still not fully accessible to them.

Key informants reported some sort of inclusion of certain vulnerable groups in their response plans by providing them directly with assistance, by prioritizing the restoration of certain essential services to them (such as social buses for vulnerable people), by introducing mobile administrative and social services team to reach non-mobile people, by reconstructing facilities with accessibility in mind, and by keeping a list of vulnerable people and informing them of available assistance.

To go further

This report has been adapted into an <u>interactive storymap</u>, which focuses on local residents' experience during and after occupation.

Other REACH research cycles provide complementary information to this report. A few research cycles especially relevant to humanitarian, early recovery and reconstruction actors include:

- <u>Multi Sectoral Needs Assessment</u>, which provides a representative sampling of multisectoral needs all across Ukraine.
- <u>Humanitarian Situation Monitoring</u>, which assesses multisectoral needs at the hromada level through key informants.
- <u>Damage Impact Analysis</u>, which assesses how communities experience and cope with infrastructural damage at settlement level including in Izium and Kherson.
- The <u>Joint Market Monitoring Initiative</u>, which assesses the functionality of shops and markets in Ukraine, and availability and affordability of items.
- Rapid Cash Feasibility, which assesses the possibility of doing cash assistance in areas close to the frontline including Kherson.

You can learn more about REACH's work in Ukraine here.