

# **Resilience Analysis proposal for Kharkiv and Mykolaiv Oblasts, Ukraine**

Diana Popa

RED SKY 4



[WWW.redsky4.nl](http://WWW.redsky4.nl)



# **Resilience Analysis proposal for Kharkiv and Mykolaiv Oblasts, Ukraine**

© Red Sky 4, 2025



## Table of Contents

<b>Preliminary desk review.....</b>	<b>3</b>
Introduction.....	3
Grounding theoretical frameworks of resilience.....	4
Physical resilience.....	6
Cognitive resilience .....	8
Social resilience .....	9
Veterans.....	11
Informational resilience .....	12
<b>Data and landscape mapping.....</b>	<b>12</b>
Kharkiv and Mykolaiv - oblast profiles .....	12
Review of existing resilience mapping initiatives .....	16
<b>Approach.....</b>	<b>20</b>
<b>Methodology.....</b>	<b>23</b>
Safeguarding and Ethics .....	25
Anticipated research limitations .....	25
<b>Timeline.....</b>	<b>27</b>
<b>References .....</b>	<b>28</b>
<b>Annexes .....</b>	<b>0</b>



## Preliminary desk review<sup>1</sup>

### Introduction

Three years of war have put an extreme toll on the population and the military forces fighting in Ukraine. The frontline areas and implicitly the areas bordering the temporary occupied territories (TOT) present particular challenges regarding access to goods and services. The population is affected in all aspects of every day life and in terms of life quality by the conditions of war, suffering from forced displacement, lack of basic goods, including food and energy sources, and access to basic services such as health care and educational services. In addition to these deprivations, the constant presence of war has put a stain on the resilience of the population in psychological terms and the resources required to address these aspects by the public authorities.

Forced to simultaneously develop and implement resilience programmes in wartime, under conditions of limited resources and capacity, Ukraine is faced with the challenge of practical implementation against a very tight timeline (or in real time) of what otherwise are medium to long time strategic resilience programmes developed by governments based on complex forecasting scenarios. Resilience monitoring and reporting exercises by either national or international organisations contribute to capturing the evolution of the war and potential changing trends in regards to the needs of the population, but require a constant stream of manpower to be implemented, as well as constant and reliable material and financial flows. In addition to this, attention fatigue on the international stage, doubled by talks of ceasefire conditions unfavourable for Ukraine, can put additional strains on the economic stability of the country and psychologic resilience of the population. As such, this is a particularly difficult moment in the evolution of the war.

Resilience initiatives implemented during wartime conditions can be monitored in subsequent rounds and recalibrated if needed and if possible, but they remain limited to the conditions of war. A stable ceasefire would allow for medium to long term resilience measures to be implemented in terms of physical resilience. The resilience analysis put forward in the following incorporates existing measures and develops examples from other conflict stricken contexts and from theory, in a comprehensive approach to real time resilience monitoring and implementation and reflects on medium term conditions needed in post-conflict areas.

---

<sup>1</sup> Consulted materials are referred to in the References section, at the end of the document.



## Grounding theoretical frameworks of resilience

If risk analysis focuses on preventing and countering threats, resilience analysis focuses on the ability and agility or speed of a system to recover from disruption brought on by threats and disasters. Resilience reflects a system's ability to recover from disruptions and adapt (Nederveen et al, 2024). When planned for in a deliberate manner, resilience focuses on the future, in its objectives and results. However, in its earliest stages, it comes close to the objectives of risk analysis by focusing on the prevention of threats. In another definition, resilience is understood as the ability of a society and of a state to adapt quickly to changes in the security environment while maintaining stable functioning, particularly by minimising vulnerabilities, either internal and external (Vartovnyk & Teperik, 2025). In yet another definition of resilience, this recovery is labelled as “achieving a new state of equilibrium” (Eken et al., 2024).

Often, there needs to be trigger for such resilience plans to come to life, thus linking necessity grounded in past and current causes to future oriented initiatives. Resilience has a preventive component: it can reduce the impact of threatening actions and act as a deterrent (Nederveen et al, 2024). Paradoxically perhaps, research indicates that existential threats to society may serve as catalysts for societal resilience (Kimhi, 2023). There are numerous theoretical approaches on resilience and constructions of resilience at different levels: individual, community or societal. Coping with lifechanging events and re-gaining (full) functioning is a common characteristic. Societal resilience reflects country level aggregations of resilience manifestations, and is influenced by patriotism, trust in authorities (Kimhi, 2023) and density and type of networks.

Following the full scale invasion of Ukraine in 2022 and the developments of the war ever since, research and policy development on resilience have abounded in the European space. States are developing their own context specific resilience programmes, in light of anticipated crisis and conflict escalation, with different maturity levels in terms of policy and adoption. One distinct characteristic is that in the European space, current resilience programs focus on the wider population, in a whole of society or comprehensive resilience approach (MSB, 2024) and protection of critical infrastructure. This focus on the preventive function of resilience underlines the “prepare” phase of the resilience spectrum: 'society's ability to be prepared for, resist, absorb and/or achieve a new state of equilibrium after a disruption (Nederveen et al, 2024:2). The total defence approach focuses on human terrain mapping (Popa, 2025), emphasising population profiles in terms of psychology, resources, attitude towards the conflict and opposing forces and the civilian – military relation.

Resilience programs are therefore best developed and initiated in a pre-conflict stage, since reaching a high level of resilience requires time and preparation. Modern day resilience frameworks are constructed in an anticipatory manner, benefiting from time allocation. In the Ukrainian context, although resilience programs in an overarching perspective contribute to preparing the system for resistance to, absorption and recovery from disruptions, they are



forced to focus first and foremost on the latter stages of the resilience spectrum – recovery, adaptation and transformation – and answer some unique immediate and concrete challenges:

- Balance costs and impact, given limited funds and competing urgent needs;
- Provide quickly implementation;
- Incorporate results fast that have an envisioned medium to long term sustainable result;
- Facilitate spread of resilience through enhanced network dissemination effects.

In this context, any previous vulnerabilities will only be exacerbated by exposure to war.

From the different existent resilience frameworks, the one developed by Linkov et al (2013) is the most often mentioned resilience framework. It relies on cross-referencing 4 phases of resilience with 4 system domains in a matrix:

Table 1. Resilience phases, Linkov et al (2013)

		<b>Phases</b>			
		Prepare	Absorb	Recovery	Adaptation & Transformation
<b>Domains</b>	Physical				
	Informational				
	Cognitive				
	Social				

These can serve as first base for mapping domains and phases of resilience planning against exercises of needs identification. Resilience plans can address two parallel or alternative perspectives: one relying on social or informal networks that enable or facilitate resilience and another relying on the development of institutional measures.

Recovery and coping plans should address the social network component, with a particular emphasis on the effects of loosing family and friends on the front line. However, from the states' perspective, reliance on social structures is insufficient for long term resilience and recovery measures. Resilience calculations based on trust and social ties must incorporate the effect of prolonged war or conflict in these relations, considering, among factors such as the effect of international and internal population displacement, displacement patterns, effect of shortages, psychological effects of exposure to prolonged stress and conflict, effects of disinformation campaigns and political warfare. Internal turmoil further weakens trust in governance structures. Informational resilience (Vartovnyk & Teperik, 2025) is one vital element in this regard.



## **Red Sky 4**

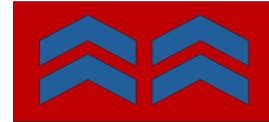
It should be noted that resilience is not resumed to short to medium term measures addressing absorb and recover measures. Having to address these later stages of the resilience cycle means that either the crisis or disaster caused by the external factors could not be avoided, such as in the case of external aggression (for example due to asymmetry of forces) or that the first stages of the resilience cycle failed. Moreover, in a volatile world, where geopolitical interests become mutable and multi-aligned, states focus on long term resilience measures, including economic and political resilience when identifying external threats to their interests. States thus engage in consolidating material sufficiency by developing alternative supply chains and consolidating internal production. In this sense, Ukraine is at an disadvantage, having to focus on the immediate threats and effects of the war. The more this lasts, the greater the disadvantage will be. Any reconstruction and recovery plans such as the Marshal plan will give the possibility to transfer already developed long term resilience measures to Ukraine, thus consolidating resilience sectors and fastening the process of long term resilience.

In the technology field, Ukraine - as a country that has been at war for more than three years now - presents particular characteristics. It leads the market in certain sectors such as the drone industry and what is called “frugal innovation”, counter-balancing technological innovation with economic power. It thus becomes a point of focus for Western developers in the field that want to test, develop and expand their technological base by benefiting from real battletested technology. In the civilian sector, levels of digital consumption are also high. Connectivity of devices is affected during air raids, and stable GPS service is a particular challenge, especially near the front lines or TOT. These aspects of technological resilience can be addressed at institutional level, but ultimately are limited by and controlled because of war conditions. Technological resilience must thus be addressed, and can be undertaken under physical and informational resilience measures. Resilience in the technological field proves particularly challenging and has security implications. High digitalisation levels also allow for faster penetration and dissemination of malign or manipulation campaigns. In war conditions the technical and digital realm become battlespaces in their own. Control over the cyberspace becomes vital for security and cognitive resilience.

For ease of operationalisation, resilience measures and initiatives can be grouped in two main categories: institutional factors and human factors. Physical resilience overlaps with what is otherwise labelled as infrastructure resilience and is best addressed under an institutional approach. Cognitive and social resilience come under the human factors (see the Approach section for details).

## **Physical resilience**

The analysis on the resilience status in the Kharkiv and Mykolaiv oblasts should thus incorporate geographical, proximity, natural and physical/ constructed environment elements. An element to be considered in resilience plans implemented in a bottom-up approach is the



size (population density) and areal spread of the organisational unit where the programme is to be implemented. Ability to assimilate and integrate large numbers of Internally Displaced Individuals (IDPs) in another organisational unit's system in a sustainable manner is a vital component for any resilience plan developed in war affected areas. Post-conflict reconstruction allows for the opportunity of systematic resilient urban development and design to be implemented (UNISDR, 2017 )

Some cities have natural built-in resilience enhancers or natural protections, depending on the natural environment. Highly dense cities that present long supply chains in certain sectors present additional challenges. Closeness to the front lines or to the temporary occupied territories (TOT) most likely puts additional pressure on resilience of neighbouring regions. Energy infrastructure is a key component in regards to physical resilience and has a direct impact on survival and resilience in the winter season. It is specifically addressed in resilience reports, mapping winterization needs across raions.

Reflecting on situation analysis in the TOT (NRCU, 2025), resilience planning should incorporate measures in anticipation of similar results, facilitating seamless or built-in resilience that can withstand temporary occupation. Urban reconstruction initiatives are already being documented, such as the #UN4Mykolaiv project (One Works, 2025). Many of the reconstruction projects incorporate resilience principles. Reviewing these existing initiatives and integrating the relevant information in the resilience analysis is planned as part of the desk research of the project.

Based on the premise of a ceasefire, and at this inflection point in the modern history of Ukraine, reconstruction efforts have the potential to change the face of urban organisation in the war affected cities, with government officials having to decide between restoration to pre-conflict status or reconstructing in anticipation of future conflict (Popa, 2025). The choices made now indicate the view over the potential of future conflict: will reconstruction be made in view of future hot conflict and as result of latent present conflict? Actively focusing on incorporating resilience measures such as redundant power sources or shelter spaces into the constructed structures of the city indicates this. Balancing current costs against perceived benefits in vision of potential future damages is a cost-benefit analysis that should be taken into account. Spatial capital can have a role in facilitating built-in resilience (Popa, 2025).

Models of urban city resilience from countries that are experienced with post-disaster rebuilding can be incorporated. Japan comes in mind in this regard. Investigating attitudes towards viable and alternative resilience patters will be integrated in the desk research, filtered during instrument testing and based on the results included in the main research. Investigating the potential to transfer other urban defence and resilience models into the Ukrainian context is also foreseen. Examples include the possibility of moving away from the exclusive underground shelters, to building tall structures that have safe rooms embedded at different levels, such as is the case in Israel.



## **Red Sky 4**

Resilience infrastructure within the city and embedded resilience at city level through inherent characteristics, such as areal spread, concentration of built space can be addressed through centralised, institutional planning and require prior mapping. Examples from long-term conflict affected geographies and ways in which urban resilience was built in can serve as example for short to long term resilience urban planning. Israel is a good example in this case, observing a consistent change in time regarding shelter spaces, moving away from community level shelters developed and relied upon in the 1960's to individual household shelters. This trend, manifested as long term investment in urban planning, considering costs of individual shelters outweighing costs of community level shared shelters, reflects a view on the development of conflict. Resilience is thus built within the city with long-term conflict in mind. Shifting from community level to individual level shelter in practice means an increase in the number of protective spaces (Dainese & Stanicic, 2022), and a decrease in terms of the time that elapses between the start of the alert system to the time needed to reach the shelter.

Yet again, choices made at this inflection point in the development of the war regarding resilience and reconstruction models can have long term impacts and although they answer urgent current needs they do shape the medium to long term development trajectory, and will become a nation re-building exercise.

The interdependency relation between the constructed environment and the lived experience is well documented in urban studies. What are now considered traditional architectural spaces, in the sense of recognizable landmarks or traits such as skylines, dominance of tall glass and lead structures or massive concrete or marble structures reflect social and historical approaches towards urban planning and nation building. This nation building element by means of controlling the constructed living space develops organically – characteristic of the West - or is part of coordinated and centralized planning – characteristic observed in Eastern Europe and the former communist block. This is internalised, transformed in theory and (re-)exercised in new manifestations of construction through the belief that our environment shapes our lives and perceptions and our lives and perceptions shape our environment.

## **Cognitive resilience**

Reports indicate that the Government of Ukraine has expanded and scaled up trauma and mental-health support in response to the effects of prolonged war on the country, but reportedly mounting needs still outstrip existing capacity (IOM, 2025, c.). Cognitive resilience is reflected by the capacity to handle distress. After the full scale invasion that started on February 2022, many citizens experience stress symptoms. As reported, parents of soldiers who died on the front experience heart attacks and die as a consequence.

Accumulated experience of deceased within the social circle, whether on the front or as civilian casualties of war, increases psychological stress, somaticizes, and leaves long term marks



within the entire society. Conversely, research indicates that high levels of resilience and distress can exist simultaneously during adversity (Kimhi et al, 2023).

Given the migration determined by the full scale invasion (5.6 million internationally displaced individuals and 3.8 million internally displaced according to IOM data) the effects of the war disperse outside the concentrated battlegrounds and outside national borders. A network approach is thus required in order to properly map persistent and pervasive effects of the war in order to address them in comprehensive resilience plans.

Psychological effects and initiatives to address them should address a wide range of stakeholders, such as citizens and individuals involved in humanitarian work. The latter are under the effects of constant engagement in actions to aid on the frontlines, of accumulation of pressure of increased responsibilities and actions and potential accumulation of guilt feelings when confronted with the observation of not being able to answer all demands given asymmetry of capabilities. Cognitive resilience must thus be addressed in any investigation of comprehensive resilience programs.

The transformation of the war into one of attrition and the increased use of drone attacks, both on the front line and against cities in Ukraine have had the cumulated effect of increased psychological pressure on both front line military and civilian population. Two phenomena are reported in this regard: one is the effect of the sound of drones on front line soldiers and the prolonged exposure to potential attacks from above. The other is the effect of drone attacks on the civilian population, again forced to live under constant threat from above. Desensitisation is another element that should be considered in the analysis for cognitive resilience in a directly proportional relation between intensity and time exposed to conflict and its effects and level of desensitisation. For example, visual and acoustic markers of military presence are now no longer signs of alterity in cities in Ukraine (Popa, 2025). In cities such as Kyiv, acoustic signals are often ignored, as coping mechanisms have evolved to weigh time and frequency of reaching the shelter with risk of exposure.

Psychological defence has become integrated part of long term comprehensive resilience programs in countries such as Sweden, observing the increased risks and effects of disinformation (MSB, 2024). In a war context, cognitive resilient needs constant reinforcement and can be linked to social and informational resilience. In prolonged conflicts that require extensive resources from the parties involved, population resilience can have a strategic role, since whose population first loses the will to fight – the opponents or one’s own or that of one’s allies has an impact on chances of victory (Popa, 2025).

## **Social resilience**

Understanding and strengthening societal capacity for resilience is an acknowledged step in resilience plans (UNISDR, 2017). Social resilience requires a network analysis. This network



## **Red Sky 4**

approach or what some studies label “community resilience” (Gerges, 2023) embeds the theory of social capital (Putnam, 2000). Social capital proves vital especially in situations where reliance on institutional intervention and support is limited due to system pressure, competing priorities and limited resources. The activation of social networks for access to resources becomes the first step in answering stringent needs. Initial theories about social capital were not developed based on war context of incorporated the effects of conflict. Recent studies on the effect of the war in Ukraine on social capital indicate that objective war experiences - violent events - reduce prosocial behaviour and institutional trust (Hoch et al., 2025). In the same time, exposure to war is not a single event (Hoch et al., 2025) but involves a series of exposures of different intensities.

Displacement has an effect on social networks. The effect of long term exposure to conflict on social networks must thus be investigated. A proxy indicator for this is the attitude towards IDPs and its pattern or change. This reflects into the absorption capacity of an organisational unit. Resilience plans must thus also incorporate attitudes towards IDPs. Previous reports show that levels of income are corelated with acceptance of newcomers within the region, with those with lower income levels having less positive attitudes towards newcomers in the region, likely due to fears of competition for limited resources such as jobs (IOM, 2005, b.). Long exposure to fluctuating volumes of resources or resource scarcity can likely influence social resilience. Another factor influencing absorption capacity and social resilience is proximity to the border [with Russia]: “Proximity to the border may correlate with higher exposure to conflict events and different historical, cultural, and strategic factors, which could influence levels of institutional trust and prosocial behavior” (Hoch et al., 2025:466). This is not resumed to the social aspect itself and manifestation of social behaviour but also reverberates in patterns of sharing or offering aid.

Additionally, what type of social capital is most useful in a crisis is also of relevance. While bonding social capital offers network stability, bridging social capital extends the range of resources and information that can be accessed. In the same time, a diverse population might face additional challenges when faced with a crisis and the need to share resources, given different socio-economic, psychological and cultural background.

Mapping one’s own population network and that of the enemy (ground knowledge) is part of military strategy that needs to anticipate weakness, breaking points and intervention needs and is used in all forms of conflicts, notably developed in the Human Terrain System approach. The system or network approach is not just a theoretical instrument of analysis, it is a phenomenon that is observed in irregular warfare (Luberisse, 2025). Lack of centralisation of networks, or rather, dissipation of networks is essential to ensure system survival and impossibility of the system to be decapitated by enemy forces. The regeneration potential is essential in system survival. Migration and displacement patterns play a role here. A smaller population means less pressure on the system to sustain it. The creation of transnational networks (diaspora and displaced individuals) contributes to access to resources – material, human, informational, and



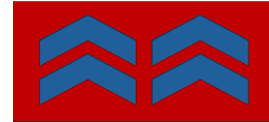
contributes to the resilience of the system. Social and psychological resilience can be influenced by cultural and historical aspects, national identity, feeling of belonging and historical grievances (Popa, 2025). Cognitive and social resilience are influenced by collective memory (Popa, 2025). Studies indicate that in states that experienced life under communist rule or bordered the former USSR are less permeable to foreign influence and manipulation campaigns – FIMI.

## Veterans

Current day resilience frameworks take into consideration the military – civilian relation as a variable that has an impact on national resilience. They do so on the assumption of distinguishing between military and civilian forces, or combatant and non-combatant forces. This relation is most relevant in pre-war conditions. It is implemented in view of consolidating population resilience for withstanding hardship and adversity and being drafted if needed. In the context of a prolonged full out war, under martial law and in the conditions of a general draft, this demarcation is no longer valid for overall resilience as the distinction becomes less relevant. Most often, in cases of existential survival, perceptions of threats to the national identity come to emphasise the principle “Armies fight battles, nations fight wars”.

The reintegration of veterans, a growing population segment, is a structural component of resilience plans. Projections indicate that the continuation of the war will result in numbers of veterans and their families between 4 and 5 million individuals (IOM, 2025). “Reintegration plans”, openly labelled as such, imply the visible distinction of former combating forces as elements that need deliberate and effort driven actions for having a part in society. In the context of fight for existential survival where national identity plays an essential role, this could prove a paternalistic approach and could be rejected if perceived as such.

Existing reports already raise questions regarding the effects that the return of front line veterans will have in terms of questioning decisions and procurement chains. It is these foreseen internal tensions between front liners and centralised decision structures that should not be overlooked in comprehensive plans for maintaining internal stability. While acknowledging the distinction that international humanitarian law makes between combating and non-combating or civilian forces, one should keep in mind that in a nation at war, insulation from the effects of conflict is impossible, since the nation is affected in its whole. As such, developing “reintegration plans” only for what international humanitarian law labels as combat forces denies the lived reality of an entire country at war. Additionally, such labels attributed to combat forces come to imply an element of alterity, of outsider character, that requires efforts in order to be absorbed within the broader society, aspect that throws a shadow on the role the national combating forces had on the front lines. This is not the case of soldiers being deployed to a foreign battleground, such as the case of US troupes in Vietnam or Afghanistan. Much as



the case of mainland Europe in the Second World War seeing nation wide battleground fighting, post-war measures distinguishing between directly and indirectly combating forces prove to have little operational practical value.

Additionally, planning for “reintegration” assumes the base view of a given end of the conflict, accepted by all parts, something that current developments do not support. Moreso, within both military forces themselves and international analysts of the conflict circulates the opinion that any peace or ceasefire agreement will be a pause or “intermezzo” during which both sides will consolidate their positions in terms of equipment, (international) drafting and training.

Formally though, developing 360 (re)-integration strategies addresses economical, social and medical components.

## Informational resilience

Anticipatory measures for increasing resilience should incorporate finds from reports on the TOT (NRCU, 2025), indicating ideological transformation of education and communication. As mentioned above, informational resilience is connected to technological resilience and social resilience. Government control over official sources of information is essential.

## Data and landscape mapping

### Kharkiv and Mykolaiv - oblast profiles

From an organisational – geographic perspective, Kharkivska is part of the Eastern macro-region while Mykolaivska is part of the Southern macro-region of Ukraine. Based on existing data and reports, Kharkivska oblast is also harder struck by the proximity to the frontline and the effects of the war than Mykolaivska Oblast.

IOM Ukraine data from July 2025 on the Kharkivska oblast profile indicates 19% (463.000) of the population is made up of Internally Displaced Individuals (IDPs) and 25% (608.000) of returnees.

IOM Ukraine data on the Mykolaivska Oblast Profile indicates an 11% (131.000) of the population fits in the category of Internally displaced individuals and 22% (265.000) of the population fits in the category of returnees.

The concentration of IDPs increases the vulnerability rate at the level of the organisational unit. Coping strategies at population level identified and surveyed by IOM Ukraine in the two oblasts are presented in Figure 1 and Figure 2 and they include, among others:

Actions affecting financial resilience:



- Spending savings;
- Skipping paying rent;
- Reducing essential health expenditures;
- Using degrading sources of income, illegal work, or high risk jobs;
- Dependence on humanitarian assistance to meet basic needs.

### Actions affecting quality of life:

- Moving to poorer quality dwelling;
- Reducing usage of utilities (wood, coal, electricity, gas).

### Infrastructure resilience:

- Access to a backup power supply system or equipment during the winter season 2024-2025.

The patterns identified here can be integrated and addressed in comprehensive resilience plans during the implementation of the project. Noteworthy is the category “winterization” - indicating increased pressure on resilience systems in the cold season due to characteristics of the geography and climate that increase demands on resources and put pressure on resilience systems. These pressures can be increased by military actions meant to exacerbate the inherent vulnerabilities existent in the system due to season conditions.

Kharkivska oblast is one of the frontline regions where access to healthcare presents challenges, with 46% of the population being affected. Being a resident of frontline oblasts, displaced or part of a vulnerable group exacerbates the odds to be affected by lack or difficult access to healthcare (IOM, 2025, c.)

According to the UNDRR (2024) putting forward recommendation on resilience building in Ukraine, Mykolaiv presents the following profile:

*“Mykolaiv has an overall score of 73 out of 141. Its highest rating is in Essential 8, “Increase infrastructure resilience”, and the lowest is in Essential 10, “Expedite recovery and build back better”. Mykolaiv has evidently had the capacity to deal with the severe stresses of war. However, the information on other risks and the level of resilience is more difficult to interpret. “The experience of actions during martial law in the country verified the information entered. The services were provided both from the resources themselves (directly) and through a designated reserve” UNDRR (2024:8).*

Increasing information resilience is needed in light of reports coming from the TOT (NRCU, 2025) on imposed legal transformations.

# Resilience Analysis proposal for Kharkiv and Mykolaiv Oblasts, Ukraine.



Red Sky 4

Coping Strategies (individuals in households having adopted or exhausted coping strategies to meet basic needs)			
Estimated population in households who spent savings	IDPs	75%	346,000
	Returnee	62%	376,000
	Non-Displaced	65%	905,000
	Total	66%	1,626,000
Estimated population in households who reduced essential health expenditures (including drugs or medicines)	IDPs	56%	259,000
	Returnee	45%	272,000
	Non-Displaced	49%	683,000
	Total	49%	1,214,000
Estimated population in households who used degrading sources of income, illegal work, or high risk jobs	IDPs	16%	74,000
	Returnee	11%	64,000
	Non-Displaced	15%	203,000
	Total	14%	341,000
Estimated population in households who depended on humanitarian assistance to meet basic needs	IDPs	56%	259,000
	Returnee	46%	280,000
	Non-Displaced	43%	591,000
	Total	46%	1,130,000
Estimated population in households who moved to poorer quality dwelling	IDPs	20%	93,000
	Returnee	7%	40,000
	Non-Displaced	5%	74,000
	Total	8%	206,000
Estimated population in households who skipped paying rent	IDPs	17%	80,000
	Returnee	8%	48,000
	Non-Displaced	13%	185,000
	Total	13%	313,000
Estimated population in households who reduced usage of utilities (wood, coal, electricity, gas)	IDPs	61%	284,000
	Returnee	51%	312,000
	Non-Displaced	61%	849,000
	Total	59%	1,445,000
Human Impact (Health Dimension)			
Estimated population in households who have faced additional difficulties accessing healthcare services when needed, as compared to before the full-scale invasion <sup>8</sup>	IDPs	8%	37,000
	Returnee	9%	56,000
	Non-Displaced	8%	111,000
	Total	8%	204,000
Estimated population in households who have faced additional difficulties accessing medication when needed, as compared to before the full-scale invasion	IDPs	13%	62,000
	Returnee	16%	96,000
	Non-Displaced	17%	240,000
	Total	16%	398,000
Estimated population in households who have faced additional difficulties accessing healthcare services and medication when needed, as compared to before the full-scale invasion	IDPs	25%	117,000
	Returnee	20%	120,000
	Non-Displaced	21%	295,000
	Total	22%	533,000
Winterization			
Estimated median available monthly household income (UAH)	IDPs	10,000	
	Returnee	12,500	
	Non-Displaced	12,250	
	Total	12,000	
Estimated proportion of respondents allocating over 50% of monthly household income to utilities during the winter period 2024-2025 (UAH)	IDPs	15%	62,000
	Returnee	11%	64,000
	Non-Displaced	15%	185,000
	Total	14%	310,000
Estimated population reporting access to a backup power supply system or equipment during the winter season 2024-2025	IDPs	16%	74,000
	Returnee	36%	216,000
	Non-Displaced	23%	314,000
	Total	25%	604,000

Figure 1. Coping strategies in the Kharkivska oblast. Source: IOM (2025)

## Resilience Analysis proposal for Kharkiv and Mykolaiv Oblasts, Ukraine.



Red Sky 4

Coping Strategies (individuals in households having adopted or exhausted coping strategies to meet basic needs)			
Estimated population in households who spent savings	IDPs	69%	91,000
	Returnee	53%	141,000
	Non-Displaced	55%	446,000
	Total	56%	679,000
Estimated population in households who reduced essential health expenditures (including drugs or medicines)	IDPs	61%	81,000
	Returnee	41%	109,000
	Non-Displaced	45%	370,000
	Total	46%	560,000
Estimated population in households who used degrading sources of income, illegal work, or high risk jobs	IDPs	19%	25,000
	Returnee	8%	21,000
	Non-Displaced	17%	142,000
	Total	15%	187,000
Estimated population in households who depended on humanitarian assistance to meet basic needs	IDPs	63%	82,000
	Returnee	48%	127,000
	Non-Displaced	43%	348,000
	Total	46%	558,000
Estimated population in households who moved to poorer quality dwelling	IDPs	21%	28,000
	Returnee	5%	14,000
	Non-Displaced	3%	22,000
	Total	5%	64,000
<b>Human Impact (Health Dimension)</b>			
Estimated population in households who skipped paying rent	IDPs	21%	28,000
	Returnee	11%	28,000
	Non-Displaced	5%	44,000
	Total	8%	100,000
Estimated population in households who reduced usage of utilities (wood, coal, electricity, gas)	IDPs	67%	88,000
	Returnee	60%	159,000
	Non-Displaced	63%	512,000
	Total	63%	758,000
Estimated population in households who have faced additional difficulties accessing healthcare services when needed, as compared to before the full-scale invasion <sup>8</sup>	IDPs	8%	11,000
	Returnee	7%	18,000
	Non-Displaced	8%	65,000
	Total	8%	93,000
Estimated population in households who have faced additional difficulties accessing medication when needed, as compared to before the full-scale invasion	IDPs	17%	23,000
	Returnee	5%	14,000
	Non-Displaced	19%	152,000
	Total	16%	189,000
Estimated population in households who have faced additional difficulties accessing healthcare services and medication when needed, as compared to before the full-scale invasion	IDPs	35%	46,000
	Returnee	21%	56,000
	Non-Displaced	20%	163,000
	Total	22%	265,000
<b>Winterization</b>			
Estimated median available monthly household income (UAH)	IDPs	11,600	
	Returnee	14,500	
	Non-Displaced	10,000	
	Total	10,000	
Estimated proportion of respondents allocating over 50% of monthly household income to utilities during the winter period 2024-2025 (UAH)	IDPs	21%	26,000
	Returnee	14%	35,000
	Non-Displaced	19%	152,000
	Total	18%	214,000
Estimated population reporting access to a backup power supply system or equipment during the winter season 2024-2025	IDPs	27%	35,000
	Returnee	39%	102,000
	Non-Displaced	23%	185,000
	Total	27%	322,000

Figure 2. Coping strategies in the Mykolaivska Oblast. Source: IOM (2025)



### Review of existing resilience mapping initiatives

Several initiatives are measuring resilience and coping capacity across the region. The Cold Spot Risk Assessment 2025/2026 (REACH 2025) maps coping risks, based on a disaster risk model, including exposure (population density), conflict incidents density, hazard and susceptibility (age, IDPs) and records of damaged infrastructure (thus balancing demand against delivery capacity).

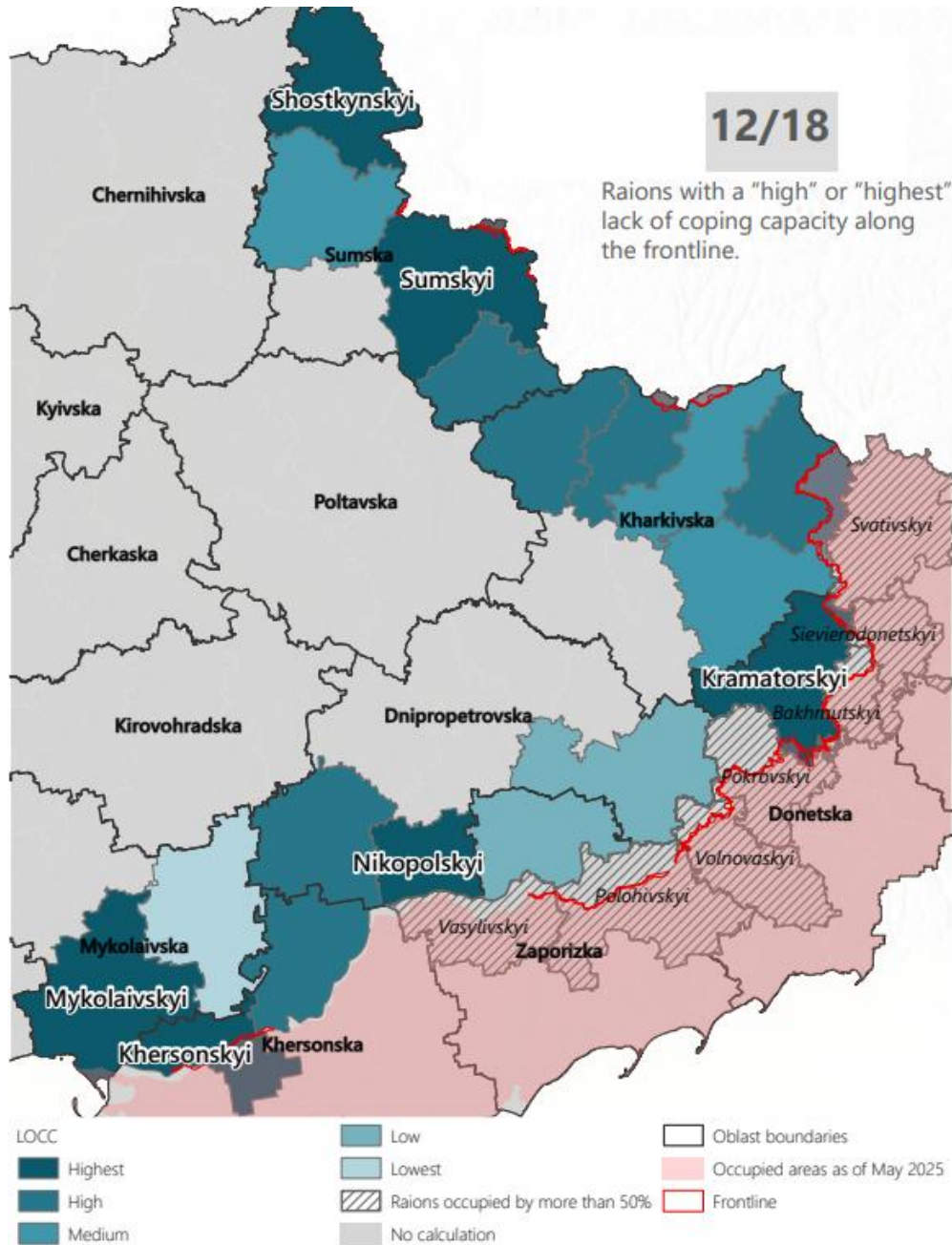


Figure 3: Raions with highest degree of lack of coping capacity. Source: REACH (2025)



Not surprisingly, raions with the highest lack of coping capacity are the ones next to the frontline. In this regard, Kharkiv presents a higher level of lack of coping capacity than Mykolaiv. Kharkivskyi, is among the districts with highest risk in this regard.

In the REACH (2025) report, the following activities have been prioritized as strategic by stakeholders:

- Supporting the most vulnerable who remain close to the frontline [focus on health and shelter initiatives];
- Supporting evacuations [focus on shelter and winter heating];
- Emergency response to airstrikes;
- Humanitarian contributions to the most vulnerable among the displaced people including those in collective centres [focus on shelter and winter heating];

The desk research will incorporate the findings summarized in the 10 essential principles of resilience and corresponding recommendations put forward in the UNDRR report from 2024, summarized in Table 2.

Table 2. Essential principles of resilience, UNDRR, 2024

<p>➤ <b>ESSENTIAL 1: ORGANIZE FOR RESILIENCE.</b> (Measures for integrating resilience into the organizational structure, the documentation that defines the principles of both daily interaction and strategic development at city level).</p> <p><i>Recommendation: Resilience is partially integrated into the current and strategic activities of local authorities, but there is a need to update existing strategic documents to cover a wider range of threats and to develop a comprehensive resilience policy for the city.</i></p> <p>➤ <b>ESSENTIAL 2: IDENTIFY, UNDERSTAND, AND USE CURRENT AND FUTURE RISK SCENARIOS</b> (Building counteraction to threats through regular monitoring, analysis of relevant indicators, and the development of emergency scenarios and hazard maps).</p> <p><i>Recommendation: Wider application of data analytics, the creation of a common risk matrix, analysis of cascading impacts and updating of hazard maps would improve the city's run-off performance according to this essential.</i></p> <p>➤ <b>ESSENTIAL 3: STRENGTHEN FINANCIAL CAPACITY FOR RESILIENCE</b> (Continuous investment in the development of a sound financial strategy that enables an effective response to various hazards)</p> <p><i>Recommendation: Developing a comprehensive urban resilience policy for the diversification of financial revenues, a culture of insurance and public-private partnerships.</i></p> <p>➤ <b>ESSENTIAL 4: PURSUE RESILIENT URBAN DEVELOPMENT AND DESIGN</b></p>
---



(Applying risk-based planning in urban development is being applied is new in Ukraine but now critical to ensure urban resilience).

*Recommendation: Develop a common risk matrix, review existing zoning to expand the range of threats covered, and introduce regular monitoring of risk data and update relevant urban planning documentation based on its results.*

- **ESSENTIAL 5: SAFEGUARD NATURAL BUFFERS TO ENHANCE THE PROTECTIVE FUNCTIONS OFFERED BY NATURAL ECOSYSTEM<sup>2</sup>:**

(Natural assets perform ecosystem functions such as water supply, biodiversity development and climate change mitigation).

*Recommendation: Better collection of high-quality data analytics to develop a more comprehensive understanding of the importance of natural assets.*

- **ESSENTIAL 6: STRENGTHEN INSTITUTIONAL CAPACITY FOR RESILIENCE**

(Establishing information and data exchange between citizens, institutions and communities and ensuring regular training).

*Recommendation: developing existing cooperation networks with other cities and institutions.*

- **ESSENTIAL 7: UNDERSTAND AND STRENGTHEN SOCIETAL CAPACITY FOR RESILIENCE**

(Maintaining social cohesion, including through educational activities and trainings, as well as community involvement in disaster prevention and response measures)

*Recommendation: Regular exercises in threat prevention and counteraction that would cover a larger proportion of the population. Increasing interaction with the public on a wider range of threats.*

- **ESSENTIAL 8: ENHANCE INFRASTRUCTURE RESILIENCE**  
(enhancing the evaluation of infrastructure resilience)

*Recommendation: Investing in protective infrastructure covering a wider range of threats and involving a wider range of stakeholders in the process.*

- **ESSENTIAL 9: ENSURE EFFECTIVE PREPAREDNESS AND DISASTER RESPONSE**

(enhancing disaster response mechanisms, including early warning systems)

---

<sup>2</sup> While this essential is considered beyond the purposes of this resilience analysis, report from the TOT (URCU, 2025) indicating a degradation of the natural environment under occupation demand an anticipatory approach to mitigating such risks and increasing resilience. Additionally, as mentioned the present proposal, the characteristics of the geographical environment can have a direct impact on the resilience levels and characteristics of a certain organisational unit and therefore need to be considered.



Recommendation: improve the disaster prevention system by (among others) the development of a risk matrix, regular collection and analysis of risk data, and regular updating of risk maps.

➤ **ESSENTIAL 10: ACCELERATE RECOVERY AND BUILD BACK BETTER**  
(Developing strategies for recovery, rehabilitation and reconstruction after disasters and corresponding improvements on the urban environment).

Military threats are addresses under Essential 8 and include:

- Protective measures and shelters (in schools, hospitals and critical infrastructure).
- Developing and disseminating scenarios for military threats and power outages, similarly to the ones existing in the water supply sector, that include providing back-up power, water transportation, and access to available natural water sources.
- Equipping of critical infrastructure facilities (hospitals, heat and water supply in companies, municipal institutions, telecommunications operators) with back-up power and alternative means of communication (UNDRR, 2024).

Existing and developing resilience initiatives include the UNBROKEN ecosystem, and the provision of educational institutions with equipment facilitating online communication and education. Initiatives for institutional resilience include equipping educational institutions with generators and emergency equipment, for becoming “unbreakable” centres and “safe places” in emergencies (UNDRR, 2024). War has reshaped the learning modalities, with online schooling predominant in the East (thus also Kharkivska) and among the displaced (IOM, 2025, c.). Displacement status and frontline location are variables with direct impact on learning modality.

Existing measures for effective preparedness and disaster response implemented under martial law include:

- A warning system covering of over 90% of the population through physical, digital or social mechanisms;
- An information campaign on personal disaster supplies;
- Cooperation with volunteer structures, NGOs and support funds;
- Professional training activities for responding to threats (UNDRR, 2024).

Identified needs in terms of actions that contribute to better preparation for resilience include:

- Expanding the range of practical training activities on the topic of resilience, favouring the workshop format instead of the lecture format.
- Finalizing contingency plans, updating existing ones (fire, missile threat);
- Digitalisation of monitoring systems for the needs of IDPs and entities involved in resilience actions (UNDRR, 2024).



Under Essential 10: Accelerated Recovery and Built Back better, the measures currently being implemented at the local government level include:

- organizing temporary measures for damaged facilities;
- arranging temporary housing;
- a policy on the procedure for providing assistance for inspection, repair and debris removal;
- organizing counselling and personal support;
- organizing support for citizens;
- organizing the restart of the economy;
- improving city planning and operational activities during reconstruction;
- infection control measures
- epidemic action plans (UNDRR, 2024).

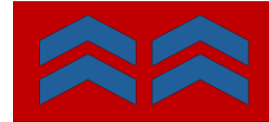
Increasing bottom -up resilience at city level include (UNDRR, 2024):

- Identifying main risks and cascading effects and incorporating them in a risk matrix.
- Identify, monitor and prevent threats.
- Focus on capacity building of local authorities to facilitate the development of bottom-up resilience building initiatives that can facilitate community development.
- Consolidate financial resilience by diversification of revenue streams allocated to crisis preparedness and responsiveness.
- Establishing a resilience Hub within the country (resilience measure at organisational level).

Not least, resilience plans should integrate a leadership perspective, facilitating a unitary perspective that is needed for long term stability and consistency. This requires the integration of cross-sectorial networks, lateral and vertical involvement in the decision making processes and quick response accompanied by long term strategy, forecasting and flexibility (Vartovnyk & Teperik, 2025).

## Approach

The approach will combine elements from existing resilience frameworks, bringing together elements addressing the human factor and the infrastructure factor. Conducting resilience analysis and subsequently consolidating resilience programs at local level has both advantages and disadvantages. Arguably, critical and large projects or initiatives will require centralized coordination and investment. State level coordination is also needed for consistency of



measures. however, because pre-disaster attributes can predict community resilience to a disaster (Gerges et al, 2023), local level resilience analysis is best suited to identify such attributes and put forward responding measures.

Infrastructure resilience is best addressed by centralised entities. However, the mapping of the needs has to be conducted at local level. Infrastructure resilience looks at robustness, redundancy, resourcefulness, and rapidity (Gerges et al, 2023). Identifying points and levels of failure of a particular unit, probability of system failure, levels of stress and recovery is needed in the mapping exercise.

The community approach, focusing on the human aspect, proves more complex to map and manage, given that the human system is not a closed circle but a dynamic one, changing in size and composition, and the effects of the conflict on this human system are not uniform. The cumulative time of exposure to conflict must also be considered in any resilience plan, in both positive and negative sense. If infrastructure resilience can be developed in time bound measures, community resilience is more difficult to manage in a deliberate manner.

A system approach is needed in order to measure the effects of cumulative factors. Given both the length of the conflict and the latest discussions taking place in international contexts about a ceasefire in exchange for land, any resilience programme must address the following questions:

- What does resilience mean after years of active war?
- What does resilience mean in a war stricken context?
- What does resilience mean in the context of discussions of forced peace?
- What effect do international talks about forced peace have on resilience?
- What impact will a forced peace have on the resilience of the population and the military?
- What role does proximity to the front line/ TOT have on resilience systems?

The resilience plan should address the following risks as well:

- Risks to social cohesion;
- Risks to effective governance;
- Informational resilience risks.

The use of metrics to quantify resilience in a way that allows for prioritization of action based on the resources and the input of stakeholders is needed in a resource scarce context with conflicting priorities (Gerges, 2023). This allows for short-medium-long term calculations on cost-impact-opportunity costs (ex: investment in contingency systems with a shorter life span that are less expensive and allocation of the remained budget to recovery measures).

Using a composite means of quantification of resilience is envisioned, incorporating documented existing indexes (Gerges, 2023):



- Social Vulnerability to Environmental Hazards (SoVI) (Cutter et al., 2003),
- Social Vulnerability Index (SVI) (Flanagan et al., 2011),
- Baseline Resilience Indicators for Communities (BRIC) (Cutter et al., 2010),
- Community Disaster Resilience Index (CDRI) (Peacock et al., 2010)
- the Resilience Capacity Index (RCI) (Foster, 2012)\*

\*apud Gerges (2023).

Cognitive resilience includes the willingness to defend and is influenced by sense of identity and degree of permeability to FIMI - foreign influence and manipulation campaigns (Popa, 2025). From the government’s perspective, being able to predict how the population will react during war and crisis is essential for defence and resilience planning. What the population is willing (and able) to defend is also relevant here. The willingness to defend has been labelled as the “elusive X factor”, being difficult to quantify.

Studies show that ex-ante communication campaigns regarding the importance of the will to fight have a positive impact on its manifestation (Conable et al., 2018), they consolidate cognitive resilience and underline aspects of social resilience. Recent communications campaigns in Ukraine conducted by the defence sector underline this military – civilian relationship, by showcasing the perspective of the families of combatants. However, mixed receipt of the campaign has been reported.

Determining the resilience span of the population in certain regions and in different scenarios is important for resilience planning. Resilience is also an element that is easier observed in its absence than in its presence as the effects of lack of resilience are seen in the degree of disruption caused by the given triggers (Popa, 2025). In this sense, wartime conditions have already underlined the effects of break points.

General health status is a variable to be considered in the calculation of resilience, since it influences the demand on the health system faced with the pressure of answering front line casualties.

Category	Physical/ Institutional resilience	Cognitive resilience	Informational resilience	Social resilience
Factors				
General health levels	X	X		
Food supply chain	X			X
Energy chain/ energy dependency	X			
Population density	X			X
Attitude towards IDIs		X		X
In		X		X
Bargaining power	X			X



Bargaining power, for example through critical assets, should be considered in calculations of overall national or regional resilience capacity, as it is a means for reinforcing and resupplying needed materials.

## Methodology

The research relies on a mix methods approach and abides by the data collection methods presented in the TOR, namely:

- Desk review;
- Conducting Focus groups;
- Key informant interviews;
- Developing participatory Resilience Matrix;
- Gender analysis;
- Conflict and Peace Analysis;
- Validation Workshop.

For the allocation of activities to deliverables, see the section Timeline, here underneath.

A stakeholder mapping exercise will be conducted in the first phase of the research. Participants will be recruited based on initial stakeholder mapping and snowball sampling. Any sampling limitations and mitigation measures will be indicated as such in the report. In order to achieve desired number of participants and to account for non-responses, an initial sample 3 times the desired number of participants is constructed for being contacted. Channels of recruiting will vary, depending on the segment of the investigated population.

Previous reports on the impact of the war in Ukraine rely on CATI for data collection at country level (see reports by the IOM or UNDRR). However, as per TOR, the resilience analysis at oblast level relies on qualitative data collection methods – interviews and focus-groups with Key Informants. Additionally, in depth analysis is needed for theory development (Theory of change and roadmap analysis) as well as for the validation workshop. It is envisioned that the instruments developed by the project will be further applied on a representative scale after project completion. Because of this, it is vital that a comprehensive picture is captured by the involvement of the key stakeholders and informants. While information saturation is being sought for, this is reflected in terms of a 360° view of the topic rather than a quantitative data collection.

Based on population profile and data presented above, the sampling aims at the inclusion of representative population profiles and underserved communities in frontline proximity. Of note is the outflow from the settlements next to the frontline to the central unit of the region, either due to official evacuation orders or displacement due to the effects of the war. An IOM map from 2024 with the main destination of evacuations reflects this flow (Figure 3).

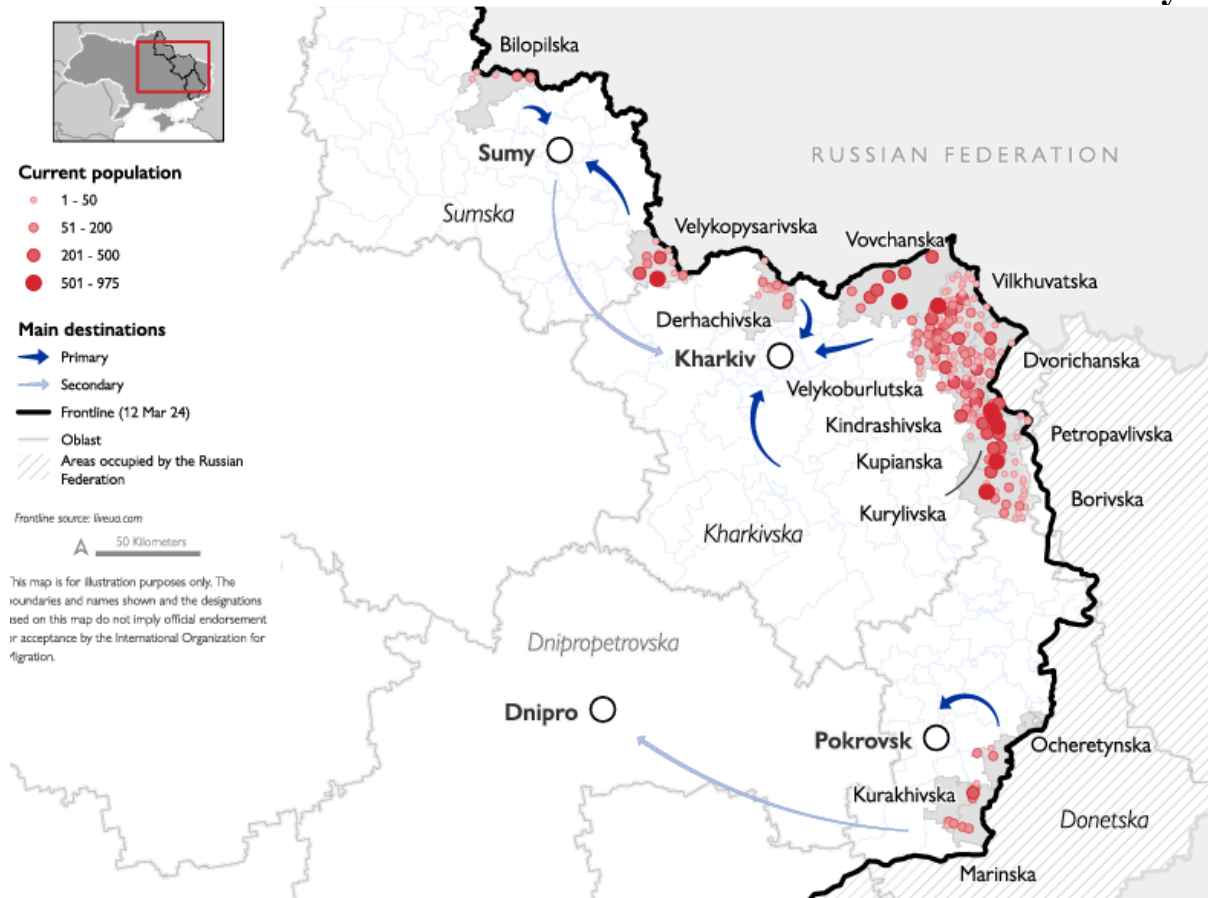
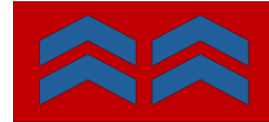


Figure 3. Main destinations of the evacuations from the assessed frontline settlements (March 16 to 31, 2024). Source: IOM (2024, a.),

This suggests that the category “underserved communities in frontline proximity” is in flux. With an envisioned considerable decrease in size, inclusion of respondents of this category is valuable in terms of vital input from a population category that is/was under investigated.

Previous studies relying on key informant interviews included employees of administrations/head of departments/councils; educational staff, international and local NGO workers or volunteers, employees or representative of communal enterprises, health staff, critical infrastructure employees, law enforcement, business represented in the organisational unit (IOM, 2024, a). Key informants will be asked to estimate the proportion of individuals facing specific needs in terms of coping and resilience mechanisms.

Qualitative data collection will be conducted according to the representation principles and will aim to reach information saturation within the planned rounds of data collection. The optimal number of participants per focus group is considered to be somewhere between 8 and 12 and at the same time, each focus group discussion should not exceed 2 hours, since participant attention and engagement is proven to decrease after this interval. Therefore, total time per



event and number of participants will be balanced against the characteristics of conflict stricken environments and potential sensitivity of topics discussed, such as: lost or damaged dwelling, (extended) exposure to direct conflict and its consequences. It is considered better to allow for more time for expression of views per participant. An average of 8-9 participants per focus group is envisioned. Preference will be given to homogenous groups in terms of representativeness of a certain population segment or stakeholder group. Interviews will be held with stakeholders in key positions. The interview is envisioned to last somewhere between 60 and 90 minutes. Draft interview & focus groups question list and stakeholder table are included in Annex 3.

## **Safeguarding and Ethics**

Written and verbal communication about the research will be given to the participant prior to the interview or focus group, as well as the opportunity to address any questions that they might have. Participation in both interviews and focus groups will be based on informed consent from the participants, in line with applicable research ethical standards and codes of practice.

The Principal Investigator (PI) of the project has extensive practical research experience with research involving human subjects, having conducted qualitative and quantitative research in research and development projects and having advised in a formal role on best practices for planning and managing research projects and data where human subjects were involved, including different categories of vulnerable subjects. The experience with ethical principles in research is attested by the scientific publications mentioned in the enclosed CV.

## **Anticipated research limitations**

While international facilitation and support is welcomed, as well as initiatives developed in Western contexts as part of resilience and risk prevention exercises, it must also be emphasised that implementation actions of resilience and recovery plans must be driven by a Ukrainian national view, that is often very different than the international one. This comes with the risk of (perceived) skewed representation, since geographical and professional experimentation of the conflict will have been different and result in different views on best approaches. In the same time, a factor that should not be underestimated is the impact that an oscillating international position and potential resentment regarding the conflict has had on the public opinion in Ukraine. Resilience and recovery plans and measures in the Ukrainian context will remain identity driven and need to be driven by the national view.

Views on population resilience in the Western space differ greatly, from initiatives to involve the population in active preparedness of resistance and resilience (self-sufficiency campaigns for example) to opinions that if the population is not ready to contribute to the military effort



it should at least not stand in their way. These differences are also influenced by perceptions of the proximity of the conflict on the willingness to participate in any actions directed at this, or dedicate resources to it at the cost of other spendings.

Research should differentiate between population sentiment and military sentiment, since it is expected that these will be different, given the balance between expectations and experiences on what resilience means in the view of these groups.

As the research focuses on qualitative data collection and analysis instead of quantitative, standardized and representative sample at population level in quantifiable terms and given the allocated timeframe for the project, three focus groups and 10 interviews with key stakeholders per location are planned.

Addressing the inclusion of different displacement status (returnees, IDPs, non-displaced) is anticipated to be achievable by contacting local authorities and organisational networks active in the area of research.

Inclusion in the research sample of rural, underserved communities in the frontline proximity in Kharkiv and Mykolaiv oblast will require translation. Subcontracting translation and transcription services locally fastens preparation of intermediary documents needed for the analysis and enable delivery of final deliverables within the indicated timelines.

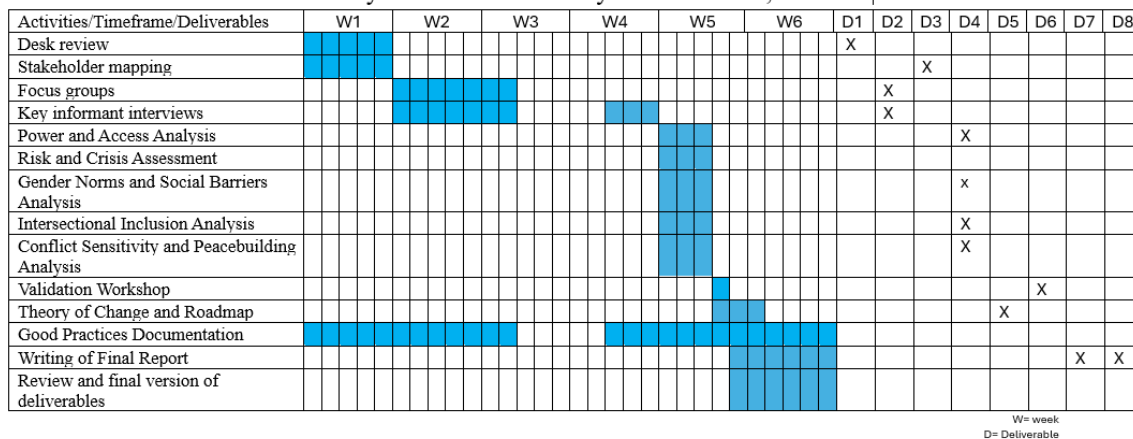
The key questions require operationalisation and adaptation to the specific investigated stakeholders. An initial proposal is included in Annex 3 and will be refined and finalised during the initial stages of the research.



## Timeline

### Gant chart

Resilience Analysis - Kharkiv and Mykolaiv Oblasts, Ukraine.



- D.1. Inception Report
- D.2. Preliminary Analysis Report
- D.3. Stakeholder and Resilience Capacity Mapping.
- D.4. Gender-Responsive Resilience Matrix and Conflict Sensitivity Analysis.
- D.5. Draft Theory of Change and Resilience Roadmap
- D.6. Validation Workshop with key stakeholders organized in Ukraine
- D.7. Final Resilience Analysis Report.
- D.8. Presentation Deck

Fig. 4 Gant chart.  
For details, See Annex 1.

The deliverables will be developed in a waterfall approach and updated in parallel, since there are interdependencies between them. The documentation of good practices is a continuous activity throughout the project and will be reflected and embedded in the different deliverables.

Inclusion of rural, underserved communities in the frontline proximity in Kharkiv and Mykolaiv oblast requires translation. Quotation requests for translation and transcription services were sent to 3 three translation agencies in each location.



## References

- Dainese, E.; Stanicic, A. (2022). *War Diaries. Design after the destruction of art and architecture*. University of Virginia Press.
- Gerges, F.; Assaad, R.; Nassif, H.; Bou-Zeid, E. Boufadel, M. (2023). *A perspective on quantifying resilience: Combining community and infrastructure capitals*. *Science of the Total Environment*, 859, 160187.
- Hoch, G.; Pondorfer, A.; Shkola, V. (2025). *Conflict and social capital: Evidence from the Russian War against Ukraine*, *Journal of Comparative Economics*, Volume 53, Issue 2, Pages 461-471, ISSN 0147-5967. <https://doi.org/10.1016/j.jce.2025.02.002>.
- IOM Ukraine (2025). *Oblast profiles, General population survey*. Available at: <https://dtm.iom.int/ukraine>
- IOM. UN migration (2025, a.). Global Data Institute. *Displacement Tracking Matrix*. Available at: <https://dtm.iom.int/ukraine>
- IOM. UN migration (2025, b.). *Veteran Profiles and Reintegration challenges in Ukraine. Thematic Brief*.
- IOM (2025, c.). *Human Impact of the War in Ukraine: Health, Education, and Physical Assets*.
- IOM (2024, a). *Frontline mobility and needs monitoring*. Available at: <https://dtm.iom.int/ukraine>
- IOM (2024, b). *Income, social protection and coping strategies in Ukraine. Thematic brief series: Livelihoods and economic recovery*. Available at: <https://dtm.iom.int/ukraine>
- Kimhi, S.; Baran, M.; Baran, T.; Kaniasty, K.; Marciano, H.; Eshel, Y.; Adini, B. (2023). *Prediction of societal and community resilience among Ukrainian and Polish populations during the Russian war against Ukraine*. *International Journal of Disaster Risk Reduction*, Volume 93, ISSN 2212-4209, Available at: <https://doi.org/10.1016/j.ijdr.2023.103792>.
- Luberisse, J. (2025). *Asymmetric warfare. Strategies and tactics for the modern combatant*. Fortis Novum Mundum.
- MSB (2024). *In case of crisis or war*. The Swedish Civil Contingencies Agency. ISBN: 978-91-7927-529-7
- Nederveen, F.; Erik Frinking, H.; van Soest, H. (2024). *Resilience quantified. A method for understanding resilience to threats to national security*. RAND Europe.
- National Resistance Center of Ukraine (2025). *The situation in the TOT of Ukraine*, First half of 2025.



One works. (2025). *Rebuilding Ukraine: the first analysis phase of Mykolaiv Masterplan*. Available at: <https://www.one-works.com/journal/transform/rebuilding-ukraine-the-first-analysis-phase-of-mykolaiv-masterplan/>

Popa, D.M. (2025). *Comprehensive resilience systems for state defence. A report on the Dutch and Swedish contexts*. Red Sky 4. Available at: <https://redsky4.nl/reports-and-publications/>

Putnam, R. (2000). *Bowling Alone: The Collapse and Revival of American Community*.

REACH (2025). *Cold Spot Risk Assessment 2025/2026. Ukraine*. Available at: [https://repository.impact-initiatives.org/document/impact/8ab2025f/REACH\\_Ukraine-Cold-Spots-Risk-Assessment\\_2025-26.pdf](https://repository.impact-initiatives.org/document/impact/8ab2025f/REACH_Ukraine-Cold-Spots-Risk-Assessment_2025-26.pdf)

UNDRR (2024). *Project Report, Local Resilience Building in Ukraine: Recommendations*, United Nations Office for Disaster Risk Reduction.

UNDRR (2025). *Risk Information Exchange. Ukraine Risk Spotlight for Community Country Assessment (CCA)*

UNISDR (2017). *How To Make Cities More Resilient. A Handbook for Local Government Leaders*.

Vartovnyk, I. & Teperik, D. (2025). *Resilience and Future Literacy for Improved Crisis Management. Analytical review*. Kyiv. July 2025. 19 pp. ISBN 978-9908-9709-0-5 (pdf)

# Annexes

## Annex 1. Gant Chart

### Gant chart

#### Resilience Analysis - Kharkiv and Mykolaiv Oblasts, Ukraine.

Activities/Timeframe/Deliverables	W1	W2	W3	W4	W5	W6	D1	D2	D3	D4	D5	D6	D7	D8
Desk review							X							
Stakeholder mapping									X					
Focus groups								X						
Key informant interviews								X						
Power and Access Analysis										X				
Risk and Crisis Assessment														
Gender Norms and Social Barriers Analysis											X			
Intersectional Inclusion Analysis										X				
Conflict Sensitivity and Peacebuilding Analysis										X				
Validation Workshop												X		
Theory of Change and Roadmap											X			
Good Practices Documentation														
Writing of Final Report													X	X
Review and final version of deliverables														

D.1. Inception Report

D.2. Preliminary Analysis Report

D.3. Stakeholder and Resilience Capacity Mapping.

D.4. Gender-Responsive Resilience Matrix and Conflict Sensitivity Analysis.

D.5. Draft Theory of Change and Resilience Roadmap

D.6. Validation Workshop with key stakeholders organized in Ukraine

D.7. Final Resilience Analysis Report.

D.8. Presentation Deck

W= week D= Deliverable
---------------------------

## Annex 3. Interview & Focus groups question list

### Stakeholder table

Key stakeholders (institutional actors, local authorities, humanitarian organisations/civil society etc.) <b>SH G1</b>	Residents – non IDPs (M;F) Residents – IDPs (M;F)  <b>SH G2</b>	Underserved/ groups (M;F)  frontline  <b>SH G3</b>
---	--	---

### Interview & Focus groups question list

[to be finalised after the pre-testing phase]

*Project debriefing: objectives; definition of resilience and concepts used throughout the question list.*

*Interview debriefing: introduction of interviewer/translator; interview duration, rights of interviewee etc.*

#### I. Contextual Risks & Crises

- What are the key risks, shocks, and chronic stresses in Kharkiv/ Mykolaiv oblasts? **SH G1**
- What are the main difficulties you are facing at the moment? **SH G2; SH G3**  
[refinement in pre-testing phase if needed]
- How do risks differ across population groups? **SH G1**
- **SH G2; SH G3**: Q1 - correlated with respondent gender, age, displacement status in analysis

#### II. Resilience Capacities (SAT)

- How are these risks addressed within the community? Can you give some examples of **stabilisation, adaptation, and transformation** initiatives within the community addressing existing challenges and risks? /What local innovations or practices have contributed to building resilience? **SH G1**
- How have you adapted to this situation **SH G2; SH G3**?
- What is the most difficult aspect for you at the moment? **SH G2; SH G3**?

#### III. Actors & Systems

- Who are the key formal and informal actors involved in crisis response and recovery? **SH G1**



- What are their roles, capacities, and coordination mechanisms? **SH G1**
- Who has helped you most during this time to overcome these difficulties? **SH G2; SH G3**

#### **IV. Inclusion and Governance**

- What are specific gender needs in the community, how are they answered and how can they be improved? **SH G1**
- Do you consider your specific needs are answered by initiatives meant at offering assistance and improving living conditions? **SH G2; SH G3**
- Were you ever denied a form of help that you asked for? If so, please offer details in this regard. ? **SH G2; SH G3** [testing for gender, power differences]
- What can be improved regarding the help you receive during this time? **SH G2; SH G3**

#### **V. Opportunities for Strengthening Resilience**

- What forms of support do you receive and from whom? **SH G2; SH G3**
- Do you engage with neighbours/ relatives/ acquaintances within your community to solve common problems? **SH G2; SH G3**

#### **VII. Localization and Community Ownership**

- How must local actors be involved in resilience planning and crisis response? **SH G1**
- What mechanisms exist (or are missing) to support local ownership, sustainability, and institutional continuity beyond external funding cycles? **SH G1**

#### **VIII. Accountability and Participation**

- How are resilience initiatives monitored? **SH G1**
- How are different opinions represented and implemented in project initiatives? **SH G1**
- Have you been involved in the decisions at community level regarding resilience programs/how to best solve the difficulties within the community? **SH G2; SH G3**

**Resilience Analysis proposal for Kharkiv and Mykolaiv Oblasts, Ukraine.**



**Red Sky 4**

**Popa, Diana (2025)**

**© Red Sky 4, 2025**

*Resilience Analysis proposal for Kharkiv and Mykolaiv Oblasts, Ukraine*

Red Sky 4  
The Netherlands  
[www.redsky4.nl](http://www.redsky4.nl)  
[Redsky4@ziggo.nl](mailto:Redsky4@ziggo.nl)