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Strengthening society's resilience and improving national preparedness for large-scale emergencies

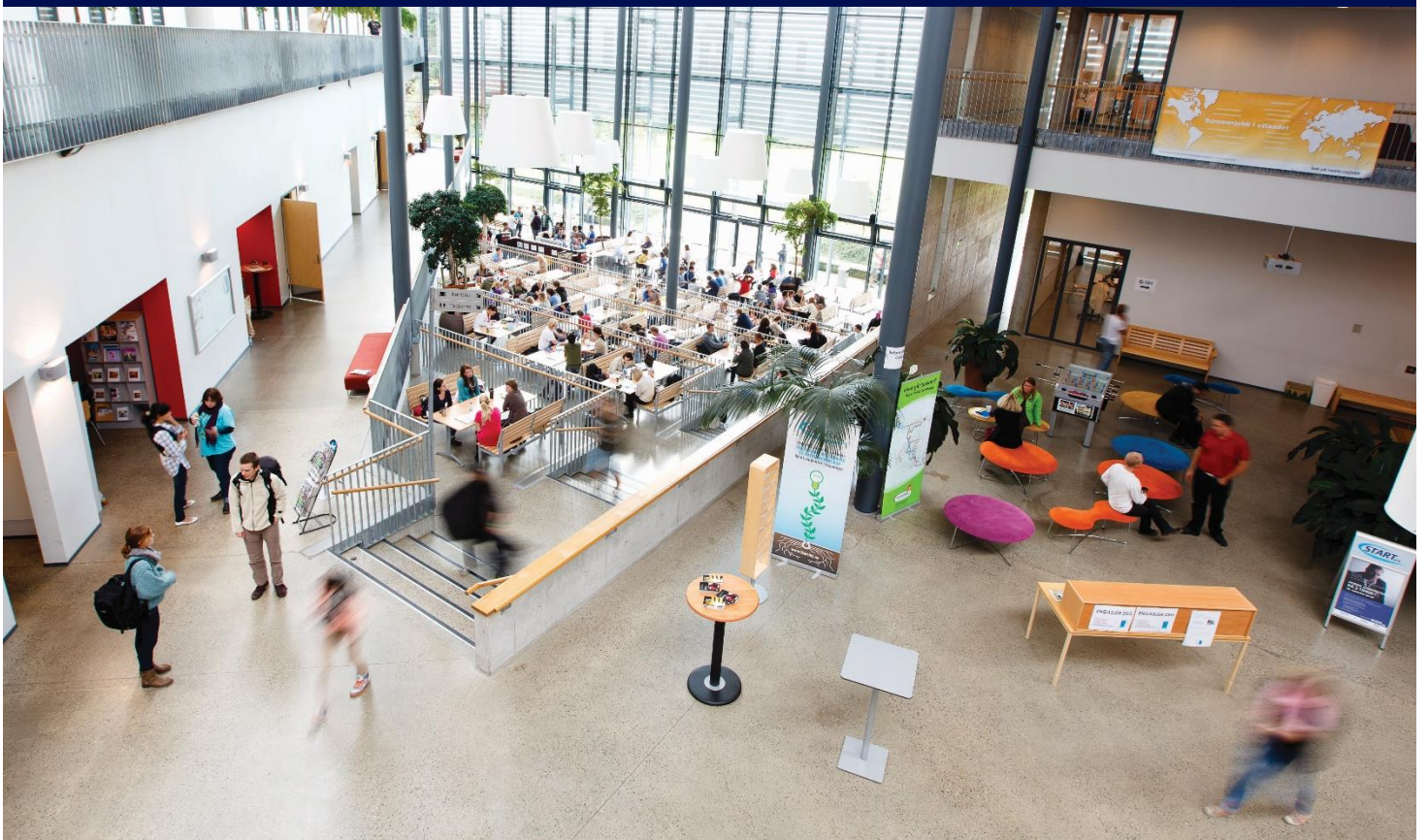
How was the Ukraine's resilience
tempered? Challenges in overcoming
crippling circumstances

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Risk Analysis and Governance

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Summary

The thesis delves into current research results on the complex interconnectedness between risk and resilience. The research refers to understanding the importance of building resilient societies by acknowledging risk. Based on the 3D risk-resilience framework and following from the knowledge about the Ukrainian experience, the study highlights that risk and resilience are linked concepts, which play a crucial role in ensuring the society's survival. The resilience of societies in large-scale emergencies is the main focus of this paper.

The thesis leverages interviews and case studies to explore societal resilience in large-scale emergencies. These studies and real-life experiences reveal how societal resilience can be built under existential threats. The research emphasises the critical role of the civilian society, empowered with the national idea and fueled by a strong national identity. It demonstrates how low-prepared and misinformed communities can transform into self-organised units, capable of proactive decision-making during the crisis.

Key Words: Resilience, Risk, Preparedness, Disinformation, Hybrid Threats.

Preface

The world faces increasing threats nowadays, starting with the growing risk of natural disasters and man-made disasters, ending with the high probability of World War 3, getting started in the next 20 years. Given that civilians always find themselves most vulnerable when it comes to such types of risk, it is vitally important to strengthen the ability of the population to withstand these threats and bounce back to its normal life at least in relatively safe areas. The constant flow of various types of information from different sources about the necessity to stay alert, to get prepared for possible military aggression from one or more of the neighbouring countries makes people panic, especially those who are struggling to get back to normal life, having fled from the conflict areas. Being a refugee now myself, I have experienced all of those moments myself, starting with the blind trust in my government and thoughts like “No, this cannot happen in a civilized country just in the geographical centre of Europe” to “How come, it must be a terrible mistake which has to be solved diplomatically” and then after a couple of weeks there was despair and the trip to uncertainty, escaping from the missile attacks, struggling with traffic challenges, long lines on the borders and refugee centres, feeling actual shortage of actual information, support and assistance from my government. I was not alone in tackling such sorts of challenges after the full-scale invasion of Russia into Ukraine in February 2022. Our unlucky experience shows that governments should pay more attention to raising the preparedness of communities for large-scale emergencies nowadays. Sending ordinary suggestions about making food storage, buying torches and keeping their batteries full is not enough to keep the public safe. Modern means of warfare with emphasis on air strikes showed them as useless, people need to have an understandable and comprehensive plan on how to keep their lives safe in urgent emergencies.

It has become evident that the world is facing a new epoch and this is not the epoch of peace. Having been an involuntary witness I have seen how Ukrainian authorities' naive negligence of full-scale invasion risks in 2022 has resulted in an enormous quantity of deaths and casualties in the local population of the occupied areas, which was neither informed nor prepared for the Russian military invasion. After two years of conflict, civilians still suffer from physical and mental disorders as a result of regular missile shellings and warfare. According to the Fourth Geneva Convention, civilians must be safe from the effects of war. Still, the modern war which is taking place now, uses the civilian population as shields, taking hostages for future bargains.

While NATO is building military defences, having finally realized the real potential of war with Russia in the next couple of years, authorities seem to neglect the preparation of the communities for the uncertain and unpredictable future. The thesis aims to demonstrate the importance of raising the population's preparedness before and during the first stages of conflict and based on recent experience of the Ukrainian authorities, the thesis gives possible directions for developing the early preparedness strategies. Reality is such that we cannot let society be vulnerable victims any more, we have to prepare for it and contribute to its robustness, adaptive skills and preparedness as a whole.

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Chapter 1

Introduction

1.1 Background

“By failing to prepare you are preparing to fail.”

Benjamin Franklin.

Preparedness and planning have always been the major focus of political leaders, along with the special stress on foresight, pragmatism and practical decisions. When the threat is approaching, communities always look up to their leaders, waiting for them to explain what is happening, to minimize the risks, and to mitigate the consequences successfully. Since the end of the Cold War, leaders somehow managed to prevent the approaching crises. They attempted to tackle them more or less successfully before the crisis escalated into a true catastrophe. Currently, we live in a world with 55 ongoing global conflicts (Turk, 2023). Up to the beginning of the year 2022, when numerous predictions of the world intelligence agencies turned into a dreadful reality - the full-scale invasion of Russia into the territory of Ukraine (RÖPCKE, 2021). Putin's outrageous ambitions about reshaping the world political map and expanding the territory of his empire have put at stake the existing world order as well as the International Law, the Geneva Conventions and the UN resolutions (*Rede an Die Nation: Putin Droht Mit Angriff Auf Westliche Länder*, 2024).

Along with the additional risk of launching nuclear missiles the world has finally realized the high probability of World War III with its possible fatal outcome. NATO is getting prepared to organize training on strategic and operational levels, using the announced window of opportunities in full (NATO, 2023), but what about civilians? The majority of the population of European and Scandinavian countries keeps on living their ordinary life, just like Ukrainians used to do before February 2022, seeing the threat of war as very distant and obscure. Due to the novelty of the war in Ukraine as a concept, lack of recent experience in being involved in the direct military conflict, and somewhat relative geographical distance from the country-aggressor, the necessity of raising the societal early preparedness and strengthening its resilience becomes one of the pivotal strategies (UNISDR, 2016).

Tierney (2015) admits that societies differ greatly in their ability to bounce back to their normal state of functioning after emergencies happen, so researchers have been trying to figure out factors that influence the recovery process. Research on the Ukrainian experience can contribute to understanding the complex process of strengthening society's resilience and preventing possible mistakes in future risk reduction and risk-preparedness measures.

1.2 Objectives of the Thesis

Based on the qualitative interviews with civilians, who were physically present on the territory of Ukraine at least 5 months before the Russian full-scale invasion on the 24th of February 2022 and at least 4 months after it, the objective of the thesis is to obtain new knowledge as to how the public manages to keep its strength and resilience under the conditions of the rapidly changing geopolitical situation and to emphasize the importance of strengthening the society's resilience to big-scale emergencies so that to prevent terrible consequences in future.

Given that national ideas have become the foundation for building and consolidating the Ukrainian resilient system, one more objective is to contribute valuable insight into how such factors as common language, faith and armed forces make the Ukrainian public prepared and resilient during challenging geopolitical times. The study includes warnings of the consequences of mistakes of downplaying the risks based on the Ukrainian experience and throws light on the issue of authority's misinformation and its horrendous consequences for the public, which is one more option the thesis is focused on.

The thesis aims to analyze knowledge about establishing and developing Ukraine's societal resilience system and determine how this knowledge can be leveraged to understand and improve the societal resilience of other countries in the face of complex global changes. Ukrainian experience will be viewed through the lens of the risk resilience framework and the most successful strategies in strengthening society's ability to withstand, adapt and transform in the circumstances of complex risks will be defined.

The core objective of the thesis is to investigate the vulnerabilities exposed by the war in Ukraine within societies during large-scale emergencies and, based on the Ukrainian experience, propose evidence-based strategies for strengthening societal resilience in the face of emerging and complex global threats.

1.3 Approach

In achieving the objectives of the thesis, a thorough review of the existing scientific literature on the concepts of risk and resilience is to be made, the thesis aims to explore how communities bounce back, adapt and transform after having faced shocks and disruptions.

In light of modern threats, stemming from the relevant data analysis, the theses will explore the need for heightened societal preparedness for terrorism, hybrid threats and disinformation.

In light of the case studies evaluations and analysis of the relevant data, the vulnerabilities of civilians facing large-scale emergencies are to be detected and the further development and transformation of the society, trying to tackle them is to be explored.

Firsthand insight into the level of preparedness of the Ukrainian society for the full-scale invasion of Russia in Ukraine will be gained through interviews with a diverse sample of Ukrainian citizens, who were present on the territory of Ukraine before and after the 24th of February 2022. To encourage honest and open responses, the interviews will be conducted under the conditions of full anonymity. Interview topics will include:

- preparedness levels for potential threats of military invasion
- views as for government initiatives concerning societal resilience
- potential impact of war hostilities on civilians

Following the ethical considerations, the interview data will be carefully analyzed to identify recurrent themes and patterns concerning resilience topics. This can help understand the gaps in building societal resilience in other countries facing similar risks.

The multifaceted approach, used in the thesis will give valuable insights into building societal preparedness in the face of modern threats and pave the direction of strengthening societal resilience for novel risks, employing local resources and facilities.

1.4 Structure of Thesis

The thesis is structured meticulously, beginning from the theoretical foundations in Chapter 2, which summarize the complex interplay between risk and resilience and highlight the benefits of their integration for building resilient societies. Using the 3D resilience framework as an example, the research suggests the advantages of interaction between risk and resilience in fostering the society's absorptive, adaptive and transformative ability to build resilient communities. Following this, Chapter 3 delves deeper into specific risks faced by modern societies nowadays, such as terrorism, hybrid threats and disinformation. Chapter 4 provides a thorough analysis of the Ukrainian experience in building its resilience, with a special focus on involving civil society in defending their homeland before, during the initial hours of the full-scale Russian invasion in February 2022 and after it. The example of successful utilisation of the local resources in the form of Territorial Defence Units and volunteering groups during the rescue operations following the Kakhovka Dam breach on June 6th 2023 is suggested as an example of the adaptive and transformative capacities of the system following the large-scale emergencies. Based on the anonymous survey, conducted for this study, the level of societal preparedness for facing Hybrid Threats and their consequences is to be analysed, with the connection to the existing level of innate resilience, stemming from the Ukrainian national identity. Based on the analysis of the unlawful deportation of civilians from the territory of Ukraine, the correlation between preparedness and resilience is to be discovered. Special focus is made on such resilience-building factors as the national language, faith, and local armed forces and their role in strengthening national security and the whole system of societal resilience. Chapter 5 culminates in conclusions and presents suggestions for bolstering societal resilience in the face of future risks.

Chapter 2

Review of Risk-Resilience Relationship.

2.1 Risk-resilience relationship

Historically risk and resilience have always been inherently related. According to Aven (2021), the nuances of the risk-resilience relationship are a question of discussion. Since risk has traditionally been viewed only as a system malfunction as the result of an accident or event, without mentioning how the system recovers, it is essential to examine what part the system's recovery takes in the aspect of risk (Aven, 2021).

Identifying risks has always been a top priority for risk managers. Still, when it comes to encountering global risks, like changes in geopolitics, economic disruptions, cybersecurity threats and nuclear hazards, it is essential to view risk a bit differently, fortifying the resilience of the system instead of prioritizing the identification of risks, training the system to be flexible and bend when facing the risk, instead of breaking (Ferguson, 2023).

Aven (2018) admits that recently there have been sufficient attempts to shift from risk to resilience due to the importance and urgency of the latest, warning about the consequences of viewing resilience separately from risk. Building resilience requires considering threats and uncertainties which are reflected in risk science. It is crucial to accept both risk and resilience, benefiting from their interconnection when assessing and building preparedness for global future challenges (Aven, 2018).

According to Alexander (2013), the origin of resilience is the Latin word “resilire,” which means to jump back, to restore the previous state. Having resonated in different disciplines, like political sciences, ecology, psychology, economy, international relations and security, the term resilience has shown different shades in interpretation, still keeping the same core - to adapt, to adjust, to bounce back (Morsut et al., 2021).

Resilience is seen as a “buffering capacity” of a society, the ability to resist shocks after a disaster that has happened (Timmerman, 1981, as cited in Alexander 2013). Somehow similar to how in the 1970s researchers studied how children with different levels of psychological

susceptibility responded to significant stress factors such as violence, loss, and natural disasters (Alexander, 2013).

Alexander (2013) is very optimistic about the flexibility of “resilience” and the possibility of applying it across diverse fields and situations, though the specific interpretations may vary.

According to Morsut et al. (2021), resilience can be applied to all levels from individuals to societies, facing known, as well as unknown, it is basically about adapting and persisting to all the challenges on the lifeway. Probably on this basis resilience receives a wide range of descriptions, starting from the ordinary adaptation (Kaufman, 2013, as cited in Morsut et al., 2021), getting to “preparing and responding” (Brunner & Giroux, 2009, as cited in Morsut et al., 2021), and going further to “protective strategy against unknown and highly unknown hazards” (Renn, 2008b, as cited in Morsut et al., 2021).

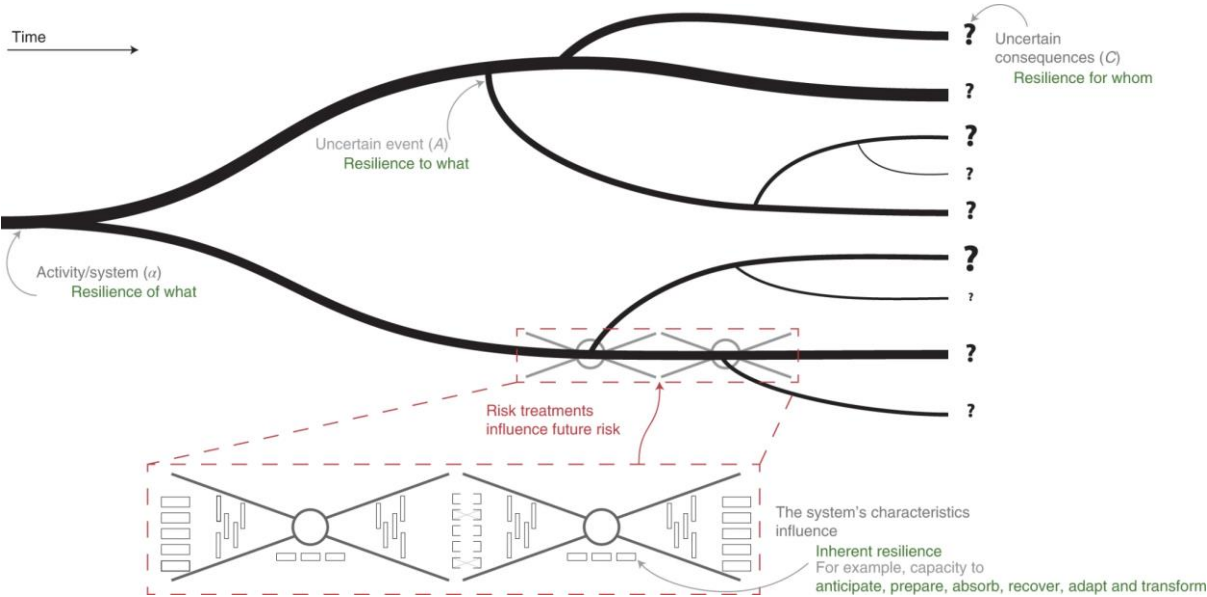
UNDRR (2009) suggests a wider definition of resilience, seeing it as the “ability of a system, community or society, exposed to hazards to resist, absorb, accommodate to and recover from the effects of hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.” However there appears to be a dilemma, what is the use of the system to get back to its previous state, which led to the crisis (Kruke & Morsut, 2015, as cited in Morsut et al., 2021)? Accepting the ever-changing nature of the world, there is a need for a proactive and resilient society which would create active systems to monitor those transformations and adjust effectively to new circumstances and emerging needs through constant learning and adjustments (Morsut et al., 2021). Based on this the collective agreement was reached to define resilience as an ongoing sequence of adjustments, adaptations and changes, both anticipated and reactive, when facing risks and crises. The “feasibility of the system” is stressed as the most important factor of the system's functioning (Morsut et al., 2021).

According to HOUSE OF LORDS (2021) instead of preparing for individual fragmented risk scenarios, we need to embrace a systemic approach that would acknowledge the interconnection of our society and the complex nature of emergencies. Along with it, special emphasis is put on building general resilience, because overfocusing on single negative risks can create vulnerabilities in other areas and reduce the system’s ability to handle unexpected events in future.

Logan et al. (2022) warn about separating risk and resilience analysis because it might hinder building a truly resilient system. The seaside community is used as an analogy to illustrate the

limitations of two separate approaches when facing repeated or unforeseen events, bringing damages repeatedly. More than building simple robustness of the society is needed in this case because it is not fruitful to invest in the recurrent cycle of damage and reconstruction, since neither the society can survive if damages happen too often. This is where modern risk science can assist with its integrated approach where all the dimensions of resilience are integrated (Logan et al., 2022).

Figure_ 1 Risk and resilience are inherently integrated



Source: Logan et al. (2022)

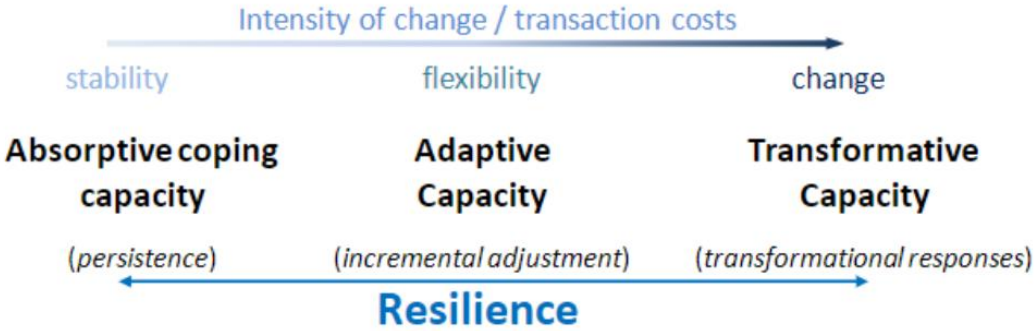
As can be seen from Figure 1 (Logan et al., 2022), the same language is used to describe risk and resilience. When we define the system, we speak of the resilience of this system, when we define an event, we speak of the resilience of the system to this event, when we define consequences, we speak of the resilience to certain consequences, like fatalities, loss and damage. By emphasizing the uncertainty about the consequences of collective choices, decisions and events, we show what determines risk and the bow-tie schemes show inherited resilience, which results from the treatment of risk as well as the implemented controls which provide adaptation and transformation of the system which to a certain extent reduce the probability of risks in future (Logan et al., 2022).

According to Mitchell (2013), along with traditional risk management’s focus on specific actions to mitigate known risks, a resilience approach takes a broader perspective. Acknowledging uncertainty and complexity, it fosters more adaptable and sustainable solutions for both humanitarian and development programs. Strengthening the resilience of society means giving society tools and skills to tackle the risks, and then to receive benefit from this experience in future (Mitchell, 2013).

2.2 The 3d Resilience Framework

Béné et al. (2012) present a special “strengthening resilience” concept by introducing an analytical framework which embraces three key components - “absorptive, adaptive and transformative capacities”. This framework is aimed to provide a structural approach for understanding and measuring different aspects of resilient systems.

Figure_2 The 3D Resilience Framework



Source: Béné et al. (2012)

Resilience has a wide variety of definitions and was originally used mostly as an engineering term (Holling, 1973). Béné et al. (2012) use the term resilience in the aspect of climate change, emphasizing on synergy of “absorptive, adaptive and transformative” components of resilience, each of them giving different responses - “persistence, adjustment and transformation”.

Norris et al. (2019) state that resistance is the expected outcome of any crisis and compare such responses to the human body's immune responses, which is an ideal example of resistance.

Individuals, as well as systems constantly develop resistance strategies, just like the immune system defends the human body to ensure its functioning despite daily challenges, this is what is called absorptive capacity (see Figure 2). In case of disaster or emergency, society has to take sufficient measures by changing the way they do their household and implementing local protection measures. Such conscious and unconscious adaptation turns into a continuous process which results in incremental improvement of the system, which is described as an adaptive capacity (Cutter et al., 2008). Finally, when a change exceeds the ability of the system to adapt, transformative shifts are inevitable, which bring structural and functional changes to the system and individuals in the form of behavioural and cultural value changes, and institutional reforms (O'Brien, 2011).

Béné et al. (2012) show the potential link between the level of resilience required and the potential associated costs and risks. The greater the demands to change are the more you have to invest, and the bigger risks are. therefore you have to weigh the increased costs and risks of transformation against the potential benefits of a more resilient system.

2.3 Importance of Building Resilient Societies

The United Nations (2018) states that unexpected foreign and local disturbances of different origins always add to the vulnerability of the nation's economic, social, political and environmental situation. These shocks include economic crises, natural disasters, environmental changes, threats related to the health of the public, and technological hazards, which influence specific regions, groups or individuals within a country. The severity of these influences very much depends on the existing vulnerabilities and the level of preparedness of the society and its capacity to recover, starting from the security of infrastructure, insurance mechanisms, society safety nets and public institutions responsible for its recovery. This is why building resilient societies requires coordination of efforts within and across the government levels. Furthermore, it requires involving actors like civil society, businesses, scientific experts and media in the policy-making and implementation of the resilience strategies, which is considered crucial for their effectiveness (United Nations, 2018).

As the result of the research of the United Nations (2021), a framework has been designed, which was adapted to individual countries' contexts and needs. It is not a framework which fits

all solutions, but rather a tool to complement and enhance the existing resilience-building efforts at the national level, focusing on fostering a more holistic and collaborative approach.

Following the goal of the paper we focus on the part of the framework, which concerns specifically the resilience of countries which are at risk of entering a conflict, being part of the existing conflict or trying to come out of it. Following the United Nations (2021) the principle of resilience can be applied during all the stages of conflict because resilience itself is a very powerful tool for peace, acting like a shield against violence, preventing outbreaks and escalations. After determining the causes of the conflict and building adaptive capacities within the communities, the following approach can serve as a strong foundation for long-lasting peace. With special emphasis on preventive measures and strengthening social cohesion resilience, principles can be very effective in preventing conflict from becoming violent in regions with unstable emergencies.

United Nations (2021) suggests the following steps for building society's resilience:

- creating channels for open dialogue and fostering cooperation between communities, which face disagreements
- developing flexibility and collaboration capacities of leaders within the institutions responsible for governance
- investing and promoting access to healthcare and educational institutions, which satisfy the essential needs of the society
- ensuring access to natural resources to prevent competition about it
- reducing economic disadvantage and exclusion by promoting sustainable income-generating activities
- ensuring interconnectedness and interrelation of risks related to conflict and other risks like epidemics and climate change

Emphasis on the importance of human rights through all the stages of conflict is determined as essential, built into the resilience-building efforts, like peace negotiations, humanitarian assistance and programs for treating refugees (United Nations, 2021). This is especially important now when often the gains of certain societal groups come at the expense of others while societies face economic instability, different types of conflicts, and scarcity of resources, which cause disproportionate impacts on population and the failure of one system leads to the cascading effect of other systems (Evans & Steven, 2009).

According to Evans and Steven (2009), we should take into consideration the challenges of globalization and make national and local systems more resilient, focusing them on international cooperation, but being able to mitigate the drawbacks of globalization. The goal is a resilient society, based on the collective spirit, and proactive engagement of the majority of its members, which reflects their shared values, benefits and sense of belonging. Mitchell (2013) stands the same ground, emphasizing the complexity and interconnectedness of risks that society faces. Natural, geopolitical, and economic factors are intertwined, so the separate solutions to tackle them always fail because there is no such thing as selective resilience of the separate layer of society, the society can be resilient as a whole or not resilient at all.

Béné et al. (2012) emphasize the significance of social protection in the form of reducing vulnerabilities of society and suggest combining their 3D Resilience Framework, see Figure 2, with the Protection-Prevention-Promotion-Intervention framework, presented by Devereux and Sabates-Wheeler (2004), see Table 1.

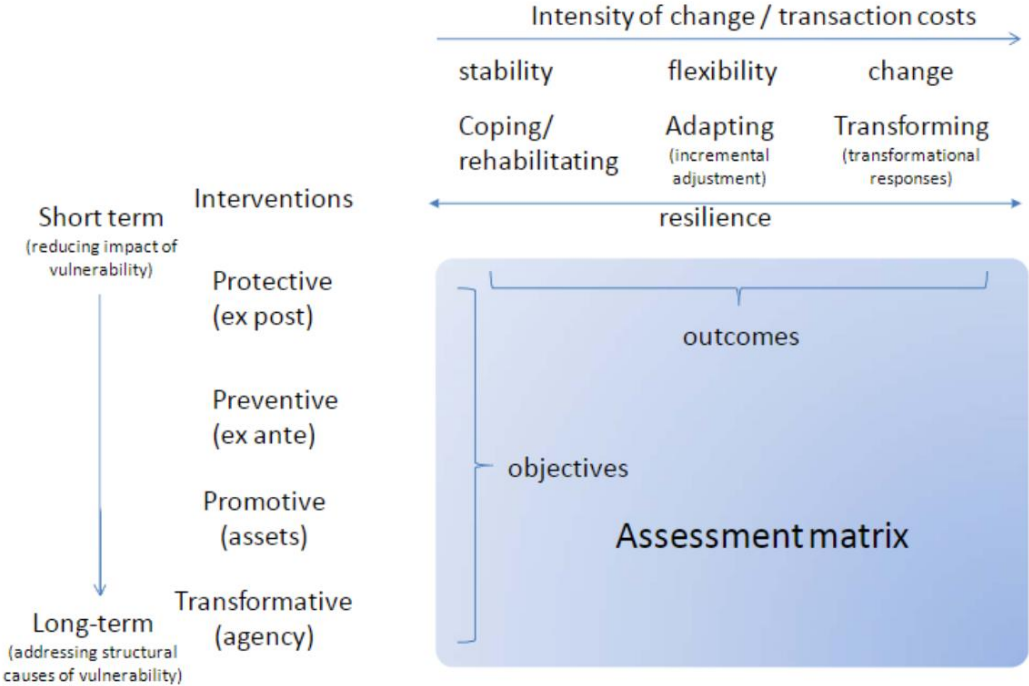
Table_1 Protection-Prevention-Promotion-Intervention framework

Protective measures	<i>Protective measures provide relief from deprivation. They are narrowly targeted safety net measures in the conventional sense –aiming to provide relief from poverty and deprivation to the extent that promotional and preventive measures have failed to do so. In particular, protective measures include social assistance for the 'chronically poor', especially those who are unable to work and earn their livelihood. This equates most closely to mainstream 'social welfare'. Social assistance programmes typically include targeted resource transfers – disability benefits, single-parent allowances, and 'social pensions' for the elderly poor that are financed publicly – out of the tax base, with donor support, and/or through NGO projects. Other protective measures can be classified as social services. These would be for the poor and groups needing special care, including orphanages and reception centres for abandoned children, feeding camps and provision of services for refugees and Internally Displaced Persons (IDPs), and the abolition of health and education charges in order to extend access to basic services to the very poor. In the Disaster Risk Reduction context protective measures also includes emergency feeding programmes, support for reconstruction, and restocking assets.</i>
Preventive measures	<i>Preventive measures seek to avert deprivation, and deal directly with poverty alleviation. They include social insurance for 'economically vulnerable groups' – people who have fallen or might fall into poverty, and may need support to help them manage their livelihood shocks. This is similar to 'social safety nets'. Social insurance programmes refer to formalised systems of pensions, health insurance, maternity and unemployment benefits, often with tripartite financing between employers, employees and the state. They also include informal mechanisms, such as savings clubs and funeral societies. Strategies of risk diversification – such as crop or income diversification – are also considered as preventive measures. More recently new forms of preventive measures in relation to climate change adaptation and/or disaster risk reduction are emerging such as crop and weather insurance and health insurance to protect health and livelihood assets (e.g. livestock).</i>
Promotive Measures	<i>Promotive measures aim to enhance real incomes and capabilities, and promote improved opportunities and livelihoods, which is achieved through a range of livelihood-enhancing programmes targeted at households and individuals, such as microfinance and school feeding. They might also include conditional cash transfers which incentivise investments in human capital by promoting demand for education and health and help address gender inequalities, public works (indirect) road, infrastructure, access to credit, asset transfers and livelihood diversification support programmes or micro-credit for livelihood promotion are also promotive social measures.</i>
Transformative measures	<i>Transformative measures seek to address concerns of social equity and exclusion, such as collective action for workers' rights, or upholding human rights for minority ethnic groups. Transformative interventions include changes to the regulatory framework to protect 'socially vulnerable groups' (e.g. people with disabilities, or victims of domestic violence) against discrimination and abuse, as well as sensitisation campaigns to transform public attitudes and behaviour and enhance social equity.</i>

Source: Devereux and Sabates-Wheeler (2004)

This framework offers a structural way to understand social protection interventions by categorizing them according to their goals and targeted vulnerabilities. As a result, we get four types: protective (addressing immediate needs after a crisis), preventive (reducing future risks), promotive (enhancing long-term resilience) and transformative (tackling systemic inequalities). Béné et al. (2012) have combined these four categories with the 3D Resilience Framework, which resulted in the assessment tool that allows a deeper exploration of how social programs contribute to resilience, whether they enhance resilience and through which dimensions. By using this framework researchers and policymakers can design and implement more effective programs which will allow communities to be better prepared to face future risks and adapt to changes when facing them. The special value of this framework is in the program's impact, focused on how the community manages risks and keeps adjusting to changes.

Figure_3 The Protection-Prevention-Promotion-Intervention 3D Resilience Framework



Source: Béné et al. (2012)

The vertical axis of the assessment matrix captures the program objectives and the horizontal axis reflects resilience outcomes. The framework was designed as a tool for assessing and strengthening social protection programs in the context of disaster risk reduction programs with a special emphasis on protection, prevention and promotion when in the outcome we receive is a transformed and resilient society. The immediate response and interventions are meant by protection. This is expected to minimize the stress and shocks of the vulnerable population in the affected areas. By prevention, proactive measures of building preparedness and capacity in reducing the probability level of disasters, are meant. Finally, promotion in the form of strategies which are expected to enhance the resilience-building capabilities of communities. Béné et al. (2012) demonstrated the practical application of this framework by analyzing four different programs: Oportunidades in Mexico, the Productive Safety Net Programme in Ethiopia, The Child Support and State Old Age Grants in South Africa and the CFPR-TUP in Bangladesh, tackling extreme poverty.

The analysis of the results of the programs showed that just providing cash in sufficient amounts can empower individuals to do more than just cope with challenges. The strongest evidence comes from the African case study when social transfers were used in different ways to improve

lives and contributed to the adaptation and transformation of society when facing climate risks and high levels of uncertainty (Béné et al., 2012). But along with it, the authors warn that resilience cannot be utterly neutral, enhancing resilience for one group cannot be performed in a vacuum. Policies which strengthen household resilience often have very wide impacts, potentially benefiting at the expense of others. When implementing institutional, economic, or social changes under the banner of building resilience, one can create inequalities and conflicts. When considering resilience as a concept for human development, particularly concerning poverty alleviation, it should be acknowledged that the poor should not be the direct target of resilience, though they are often perceived as the most vulnerable, but still exhibit high levels of resistance (Béné et al., 2012). Evans and Reid argue that the resilience of the poor very much depends on neoliberal governance systems (Evans & Reid, 2014, as cited in Humbert & Joseph, 2019). Zebrowski suggests that resilience is not about changing threats of security but rather reflects the evolving organizational structure of advanced liberal societies (Zebrowski, 2008, as cited in Humbert & Joseph, 2019).

There are many perspectives which connect resilience and contemporary neoliberal governance. This alignment originates from such shared characteristics as individualism, the responsibility placed on average persons and communities, and the empowerment of self-governing communities through awareness, risk management and adaptability (Joseph, 2018, as cited in Humbert & Joseph, 2019).

Béné et al. (2012) admit that building resilience can help individuals and communities to cope with challenges but it cannot guarantee the path out of poverty, since resilience is “poor-neutral”. Poverty and resilience are not mutually exclusive. Numerous social and anthropological studies demonstrate that resilience is often characteristic of low-income households, who have to survive and navigate challenging life circumstances. Arctic Resilience Report 2016 acknowledges the vulnerability of indigenous populations, especially those who live in the Arctic, and along with it points out their high resilience, for example, the resilience of the Sami people from Eurasia is seen as a testament to their societal strength and self-sufficiency (Arctic Council, 2016, as cited in Reid, 2019). Genetics admit their exceptional biological resilience as well. Still in the face of looming crises strengthening the resilience of the Indigenous population is crucial and anthropologists have to contribute their efforts to this (Reid, 2019). Neglecting resilience can have negative consequences as well as shifting resources from one approach to the other requires careful consideration and potential impacts on poverty alleviation must be evaluated (Béné et al., 2012).

However, Aven (2017) argues that it is quite a challenge to estimate the degree of a system's resilience, just like it is difficult to measure the level of resilience of the human body, whether it is quite resilient or highly resilient. But do we need to do it? Instead of measuring resilience, we should prioritize improving it, this is where risk analysis can be very helpful. Aven (2017) suggests using subjective probabilities, which can always be assigned, even in situations with high uncertainties on the condition they are supplemented with the strength of knowledge judgements.

2.4 Resilience and Risk Analysis Synergy

According to Aven, T., & Thekdi, S. (2018) economies, as well as societies, require robust resilience strategies to ensure continuous functionality and efficient recovery when facing ongoing disruptions. Risk assessment is seen as the most important component of an effective resilience strategy. As well as resilience-based approaches also help to address uncertainties and risks which come as unforeseen surprises, for which risk assessment is limited. Aven, T., & Thekdi, S. (2018) admit that some aspects of resilience are like boosting the immune system and can be independent of risk analysis, but if effective resilience strategies are set as a goal, then assessing and managing risks are necessary for making resilience the strongest.

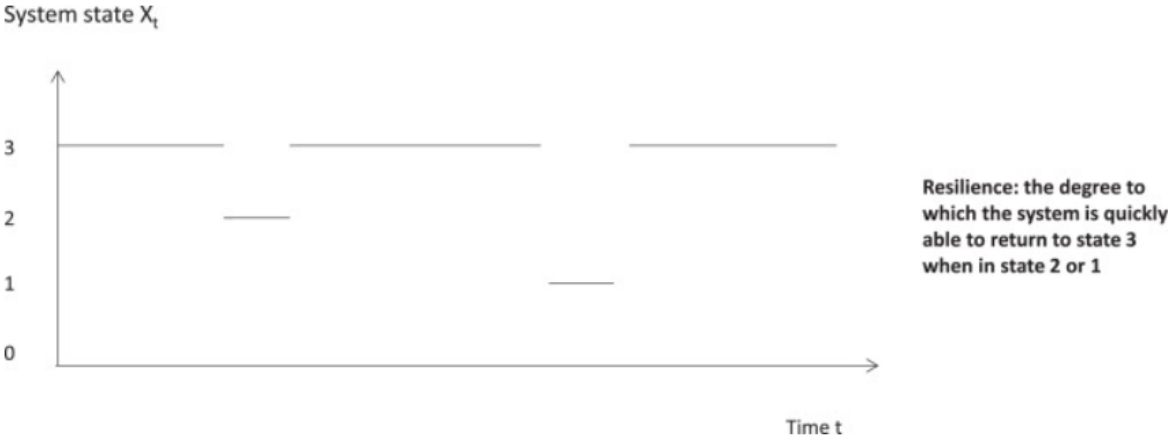
Resilience analysis cannot be supplemented only by the traditional quantitative risk assessment, because it is focused mainly on precise probability data, but it can benefit from the extended qualitative risk assessment of potential risk events, the process of recovery from them and associated uncertainties.

Aven, T., & Thekdi, S. (2018) set several objectives for such qualitative risk assessments:

- defining the type of events that could happen and identifying what is known and what is unknown
- differentiating known types of events from the unknown types of events as well as those that might come as a surprise
- assessing the probability of events with the help of subjective and objective probability interval
- strength of knowledge assessment
- assessment of unknown and surprising events

Aven, T., & Thekdi, S. (2018) argue that integrating such qualitative risk assessment considerations into resilience analysis helps to understand how the system recovers and resumes its normal functionality following a disruption, therefore it is worth integrating it into the risk management organizational procedures. Aven (2017) emphasizes that resilience analysis and management are especially fruitful for addressing uncertainties and the strength of knowledge, which the uncertainty comes from, especially when we deal with complex risks like climate change, economic instability and geopolitical tensions. With such complex risks, when the uncertainties are high and we cannot predict exactly what will happen and how things will unfold, it is fruitful to focus on building resilience proactively and raising preparedness for future risks. This is how Aven (2017) illustrates his ideas, see Figure 4.

Figure_4 Illustration of a resilient system: the system quickly returns to the normal functioning state (3) when in one of the intermediate states (1 or 2)



Source: Aven (2017)

According to Figure 4, the system functions as normal on level 3, because of different disruptions it can drop to levels 2, 1 and even 0. We can suppose that recovering from level 2 means recovering from a known event and recovering from 1 is getting to the normal state after the unknown events while recovering from 0 is recovering from unknown unknowns. The degree of resilience of the system is estimated by how fast the system recovers to the level after getting down to levels 2, 1, and 0, as well as getting to levels 1 and 2 after getting to 0 (Aven, 2017). Resilience analysis is supported by risk assessments, which determine what events will happen, what the consequences will be and how fast the system returns to level 3 after the event.

As an example of the event, when the system dropped down to level 1, the attack on the BP-Statoil-Algeria Sonatrach facility in Algeria on January 16th, 2023, is presented by Aven (2017). As a result, 40 people were killed and the Algerian army did not provide the expected protection, so the resilience of the system was very low and it could not return to its level 3, after the loss of many people.

Building resilience doesn't always require predicting every single event and its likelihood, but strengthening the system by understanding the potential threats, and focusing on surprises to understand areas where knowledge is limited or not enough, can make the resilience of the system stronger. If this approach had been implemented, it would have led to other outcomes. (Aven, 2017).

Therefore Aven (2017) concludes that resilience is difficult to measure, so we have to use a mixture of qualitative and quantitative judgements. Considering risk factors strengthens resilience management and its successful management. A risk-informed approach leads to more effective resilience management. Integration of risk considerations can enhance resilience management strategies. This approach relies on qualitative assessment, considering known and unknown factors, as well as the advantages and disadvantages of potential solutions. This gives the decision-makers enough information to balance the need for increased resilience and efficient resource allocation.

Bridging the gap between resilience and risk is essential because we cannot rely solely on the consequences and uncertainties of traditional risk assessment, highlighting knowledge and the lack of knowledge along with traditional probabilities far more important (Aven, 2017).

Chapter 3

Resilience in Large-Scale Emergencies

3.1 Societal Resilience to Terrorism

The resilience of societies in large-scale emergencies is the focus of the paper, so it is time to dwell on the interpretation of resilience in the context of adversities, such as terrorism. Resilience as a term was rarely found in terrorism research before the terrorist attack in the USA on 11th September 2001. However, Israel was trying to shed light on how communities survived and went on living in constant danger of terrorism (Jore, 2020).

The initial understanding of resilience since 9/11 was focused on the system's ability to withstand and manage the consequences of attacks with a priority on the protection of potential targets like transport hubs, governmental buildings and heavily populated urban areas, “materially and territory-focused” as Jore (2020) puts it into words. This type of resilience focus prevailed in Ukraine a few months before and after the full-scale invasion of Russia on the 24th of February 2022 until the Territorial Defence Forces were deployed (Bielieskov, 2023). Jore (2020) defines this as a second interpretation of resilience, which lies in the self-organization of businesses, governments, communities and individuals to face terrorist threats, having accepted them as persistent, to “expect the unexpected and respond to the threats”. Just like individuals and communities in Ukraine have learned to live since February 2022, working, continuing to educate kids, providing healthcare services and even gathering harvest in between the regular missile shelling (Schwartz et al., 2023). Organizations increase preparedness for terrorism risks by developing strategies to withstand the impact, adjust to circumstances and develop into a more secure and functional state. This way local actors actively participate in crisis response rather than fully relying on authorities (Jore, 2020).

The fourth definition of resilience according to Jore (2020) extends beyond the ordinary recovery after a terrorist attack, it transforms proactively and emerges in the improved condition. This is what Ukrainian society is expected to be after the war with Russia is over - strong and resilient, supported by a professional army, just like Israel builds its inner resilience to tackle terrorism.

Jore (2020) emphasizes the fifth definition of resilience as the most essential in terrorism study, developing psychological resilience from radicalization and cognitive resistance from extremist ideologies. However, simultaneously, the author warns about the applicability of resilience within terrorism studies due to the multiplicity of its definitions and emphasizes the need for further research.

3.2 Societal Resilience to Hybrid Threats

The same warnings the term Hybrid Warfare receives as well, having been a military jargon in past, but is widely used now to describe a wide range of security and defence threats, which the West started to face hybrid threats since the annexation of Crimea in 2014 (Reichborn-Kjennerud & Cullen, 2016). According to NATO (2023), it is a merging of military and non-military tactics, along with open and concealed warfare. Hybrid Warfare includes disinformation, cyber warfare, economic manipulation, and deployment of traditional and irregular armed forces. Blurring the distinction between peace and war is the main distinctive feature of Hybrid Warfare.

The recent couple of years have brought many new challenges into the political arena, and strengthening society's resilience in the face of new hybrid threats has become an urgent necessity if not the top priority. Despite warnings that such terms as “resilience” and “hybrid warfare” are receiving much criticism in the academic literature nowadays, they are widely used to discuss how society can survive, continue functioning and get stronger in the face of undescended acts of aggression, which are regularly performed to disrupt the rule-based international law. The Russian Federation and the People's Republic of China employ complex hybrid tactics such as political meddling, cyber-attacks, subversion, annexation and economic pressure, intentionally confusing and fostering uncertainty within the targeted society with the goal of destabilization and weakening (NATO, 2023). It has been a long while since the West got stuck in their understanding of traditional warfare, focused on traditional battles and physical force, while adversaries redefined their warfare into a broader context (Reichborn-Kjennerud & Cullen, 2016). According to NATO (2023), the strategy is to “prepare, deter and defend”, but in reality, they have to deal with tactic and strategic ambiguity, because Hybrid Warfare aims to avoid confrontation, making the initiation and end of hostilities unclear, using grey zones to mask military actions to achieve political goals, for example, “little polite green

men” who were involved in the annexation of Crimea in 2014. While traditional warfare is focused on using military force directly, Hybrid Warfare operates beneath an opponent’s threshold, using hidden military means and non-military tools (Reichborn-Kjennerud & Cullen, 2016).

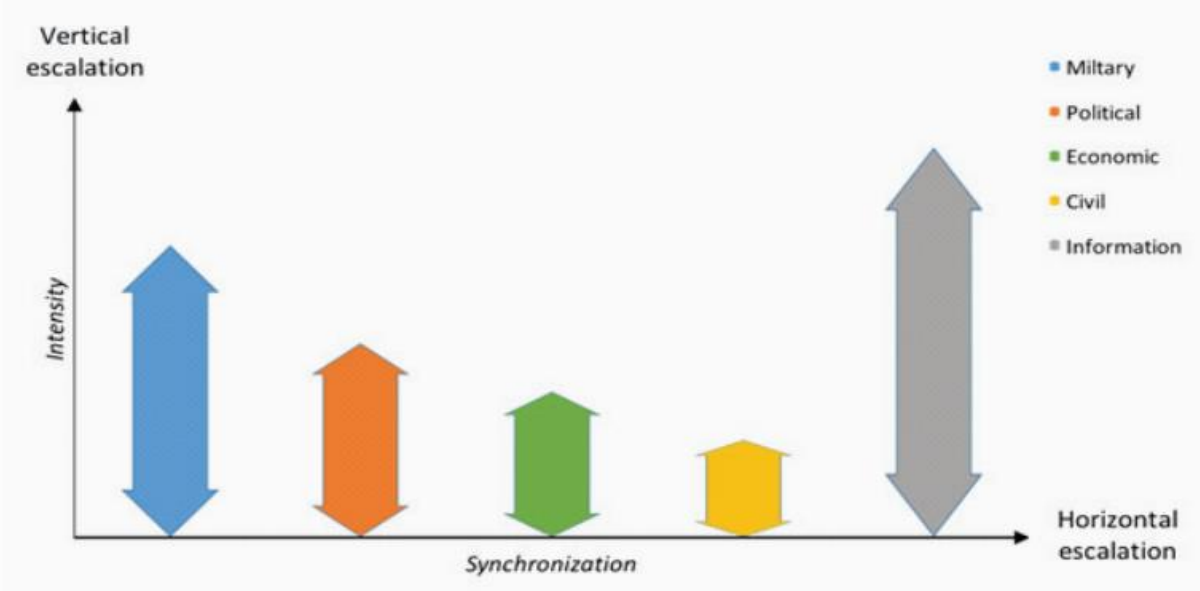
What are the risks for communities living in the areas where Hybrid Warfare takes place? Let's see from the recent example of the Russian invasion of Ukraine in 2022 when those Ukrainians, who lived close to the border with Russia got into the most vulnerable position due to the misinformation from the Ukrainian authorities, broadcasted via mass media channels (Zelenskii, 2022). Starting from the early morning of the 24th February 2022 communities in Ukraine were witnessing and experiencing horrible crimes against civilians which became evident after the Russian troops retreated from part of these territories one month later. The atrocities in Bucha, including rape, torture, murder and looting were part of the proclaimed “special operation” under the governance of Russian authorities, which was specifically directed at terrorising and demoralising the population for the sake of achieving military and political objectives (Baker et al., 2023).

According to NATO (2023), the main goal is to detect vulnerabilities in the defences of the countries-members of NATO and build their resilience to withstand threats. NATO assists in preparing citizens for large-scale emergencies through efficient communication and responds to chemical, biological and nuclear incidents. Baker et al. (2023) argue that in a situation when tensions between countries grow due to multiple conflicts, there exists potential for a direct clash between nations. Taking into consideration such factors as the ongoing war in Ukraine, competition between major powers in the Arctic region, aggressive actions aimed at claiming dominance in the South China Sea, and South Korea's repeated actions that heighten tensions, it is essential to assess the risks that civilians and civilian infrastructure are facing now. As usual, civilians become the first targets when Hybrid Warfare starts. It can be tragically exemplified by the attacks in Ukraine at the beginning of the full-scale invasion during February - March 2022, when civilian casualties and destruction of the civilian infrastructure, like hospitals, schools, and shopping centres had devastating consequences for Ukrainian communities.

Reichborn-Kjennerud and Cullen (2016) suggest a model which illustrates how Hybrid Warfare uses various tools of power, to attack vulnerabilities in the opponent's system with the goal of vertical and horizontal conflict escalation to achieve the expected result. The attacks are

orchestrated within the political, military, economic, civil and information spheres, being synchronized and intensified if required, see Figure 5.

Figure_5 Hybrid Warfare Model



Source: Reichborn-Kjennerud and Cullen (2016)

Applying this model helps to understand the 2014 events in Crimea and the subsequent war in eastern Ukraine, when Hybrid Warfare involved military and non-military tactics, which were intensified by informational campaigns, and psychological manipulation with the “language issues”, using various diplomatic strategies. In addition to the main tactics Russia actively manipulates historical facts, common roots, and news, targeting civilians directly through “brainwashing”. Deployment of military forces with a hidden identity, as happened in Crimea and Donbas region in 2014, supporting separatists has become the Russian style of Hybrid Warfare nowadays, which the democratic world has difficulty tackling (Dunay & Roloff, 2017).

Long before 2022, the majority of the Western countries could not detect the true intentions of Russia, having assessed they were exclusively about changing borders within the countries of the former USSR. But now, after its full-scale invasion of Ukraine, it has become evident that Russia's goal is to get ultimate power in the multipolar world order and it is high time to build the resilience of Western countries to the Hybrid Warfare tactics, which are already known and widely used by Russia (Dunay & Roloff, 2017). This leads us to a more complex scheme of

Russian Hybrid Warfare presented by Butler (2019) which gives a deeper and thorough insight as to how it is unfolding, see Figure 6.

Figure_6 Russian Hybrid Warfare



Source: Butler (2019).

Butler (2019) gives a deep insight into how the Russian Federation uses a multifaceted approach to achieve its strategic goals to avoid full-scale confrontation with the countries members of NATO by combining conventional and non-conventional methods, like disinformation campaigns, cyber-attacks economic pressure, deploying the proxy forces and manipulation with elections.

It requires the countries to stay alert. Hoeren (2024) states that the federal government of Germany is getting prepared for Russia's possible attack. The Bundestag's "Risikoanalyse für den Zivilschutz" includes a four-stage scenario of a Russian war against NATO and Germany,

with a special emphasis that such an attack would provoke "a fundamental change in the security situation for the whole of Europe":

The four-stage scenario according to Hoeren (2024):

- first stage - disinformation campaign, conducted via the mass and social media
- second stage - accumulation of Russian troops close to NATO's borders, deployment of the Alliance's border contingent as a response to it, increasing frequency of cyberattacks and sabotage with space satellites, attacks on nuclear reactors, chemical plants and cities water systems.
- third stage - targeted strikes using conventional and non-conventional weapons on the territory of Germany, the destruction of a sufficient number of space satellites
- fourth stage - breakthrough of Russian troops into the territory of Germany and following combat operations, conducted in the air and sea, clash between the countries growing into the "global conflict".

As it is evident from the risk analysis above, disinformation comes first, brainwashing with Russian propaganda is a very powerful component of the Russian military campaign and this risk should not be ignored in communities with a population of Russian origin who tend to gravitate to the Russian mass media.

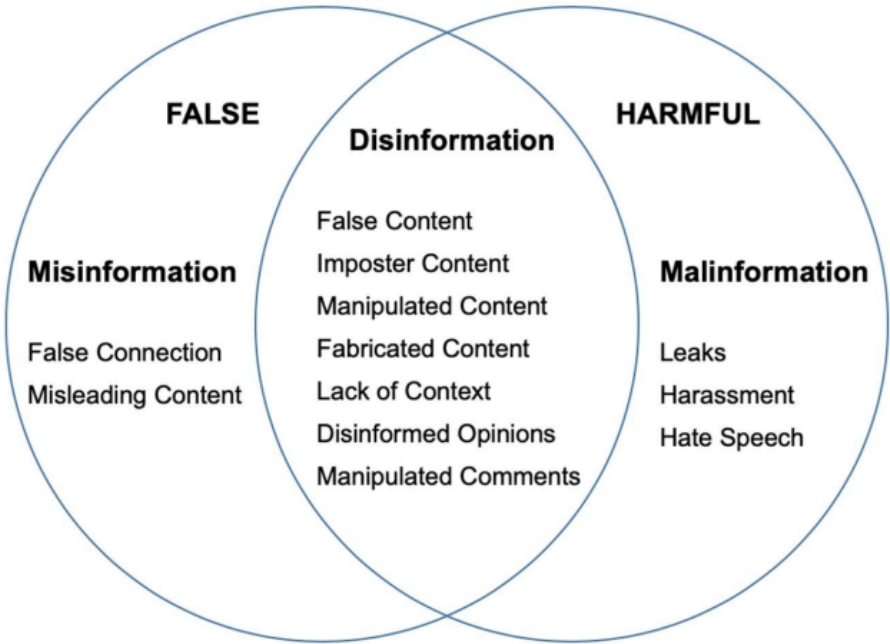
3.3 Societal Resilience to Disinformation

Humprecht et al. (2020) argue that online disinformation in the form of false or misleading facts spread for financial and political advantage contributes to the risks that modern democratic societies are facing nowadays. Disinformation, which prevails in social media, is amplified as a result of its spreading among users, without previous verification. Dragomir et al. (2024) suppose that online platforms spreading disinformation are only the tip of the iceberg, while the genuine sources are hidden and often act under the guidance of governments. Prior et al. (2015) state that people's level of knowledge plays a crucial role in how they filter and understand information. Consequently, people with deeper and broader knowledge are less likely to gravitate to the information to confirm their existing beliefs or assume their personal experience reflects the objective reality.

At the same time, communities with limited, controlled or restricted access to mass and social media are less resilient to disinformation (Humbert & Joseph, 2019). Previous soviet communities of the Iron Shield times and modern Russian communities with their limited access to mass and social media can be vivid examples of a society with low resilience to disinformation and high vulnerability to confirmation bias through propaganda.

Dragomir et al. (2024) suppose that success in fighting disinformation depends on the local media landscape, the quality of education within the communities and what is more important - the political climate. Herpen (2015) argues that Russian authorities adjust the old-school Soviet informational tools for the modern media environment by setting ultimate control over the media landscape. Capturing the media environment and broadcasting Russian channels was the first thing that was done after the invasion of Russian armed forces into Crimea, Donbas and Lugansk territories in 2014. Consequently, the local communities became the involuntary users of disinformation, black propaganda and constant denials of the crimes against humanity, performed by the Russian armed forces. Famous Putin’s narrative “It is not us” explaining the origin of “little green guys” in the Crimean Peninsula in the process of its annexation has become viral.

Figure_7 Social Media Information Types



Source: Partly adapted from Wardle & Derakhshan (2017, p. 5) as cited in Humprecht et al. (2020)

It is crucial to differentiate the type of social media information, see Figure 7. because only disinformation and malinformation are spread to cause intentional harm, while misinformation is spread without malicious intention. Disinformation is an intentional and strategic spread of false information, which is used to influence a wide range of audiences as a basis for certain political or military goals (Benkler, Faris, & Roberts, 2018; Marwick & Lewis, 2017 as cited in Humprecht et al., 2020). As mentioned above, the Russian Federation actively uses disinformation for manipulation within the targeted communities for promotion and justification for its military crimes. Therefore countries with a certain portion of Russian ethnic minorities in their population need to consider the risks of manipulation through disinformation (Herpen, 2015). Taking into consideration politics and governmental authorities, whose responsibility is to make legislative regulations on the problem of disinformation, often become the sources of disinformation themselves, Dragomir et al. (2024) argue that instead of reacting to disinformation with laws and restrictions, proactive strengthening of journalism would be a more fruitful approach. When tackling disinformation, strengthening the resilience of the media environment must be prioritized, because it is not that easy to manipulate a resilient media landscape. Humprecht et al. (2020) set strengthening social resilience first, arguing that it is more important to understand what makes society vulnerable to disinformation and react to these vulnerabilities first.

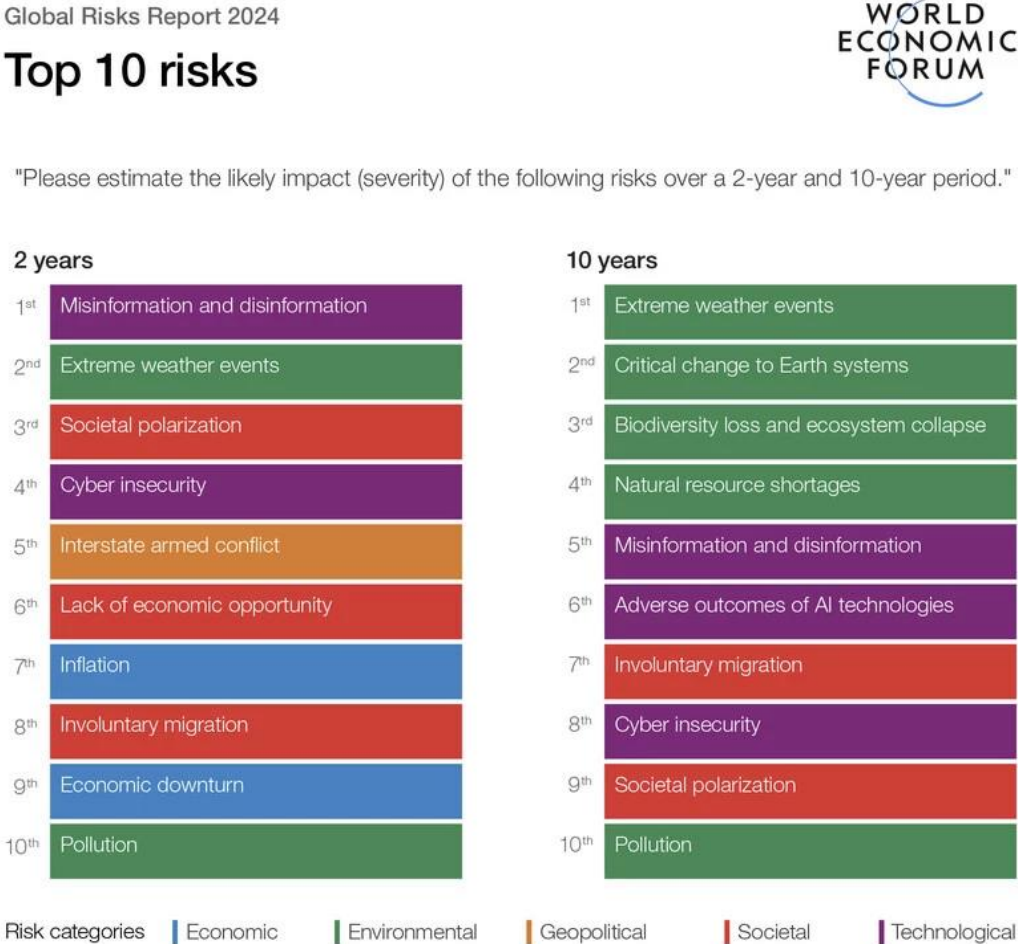
According to World Economic Forum (2024), disinformation and misinformation are estimated as the biggest short-term risks, expected to be faced shortly. Taking into consideration the complexity of the critical global world problems, there is an urgent need for new strategies for tackling the approaching risks. Disinformation along with the further polarization within societies amidst several armed conflicts are on top of risks for the next two years.

As the saying goes, the one who owns information owns the whole world. For the sake of shaping public opinions, authorities employ different conveying information tactics. According to Entman (2004), when communicating issues to the public, governmental authorities can emphasize certain aspects of information and downplay others. Such framing of information is done to influence public perception and is often performed to provoke strong emotions, such as anger and, fear or on the contrary to make the rate of worries and concern lower. By framing information in a specific way, the public can get more or less a perception of the same issue. The public often looks for information to confirm their bias. In the Ukrainian context, the public bias about the absurdity of the possible full-scale invasion from the side of the Russian Federation was confirmed by the communication of the Ukrainian authorities, when despite the

warnings from the world authorities, the probability of the full-scale military invasion of Russia in Ukraine was denied till the last day before it happened (Zelenskii, 2022).

Russian authorities frame the warfare and war hostilities they conduct on the territory of Ukraine as the process of the denazification of Ukraine and the prevention measures from the risks of expansion and aggression of NATO (Putin, 2022). This raises the question of misinformation and disinformation which takes first place in the Global Risk Report 2024, see Figure 8.

Figure_8 Global Risk Report 2024



Source: World Economic Forum Global Risks Perception Survey 2023-2024.

Edelman (2022) reveals the same level of disinformation and misinformation risks when in the result of the trust survey the majority (76%) of people from 27 countries confirmed their worries

about receiving fake news. Two-thirds of those who answered blamed reporters and politicians for misleading the public. Such low trust, when “disinformation is used as a weapon”, is considered a huge threat to democracy.

Fighting against misinformation requires cooperation between governments, media and social groups, who have to find ways to work together. However, it is crucial to ensure the independence of social groups and media from the governments to hold them accountable for their deeds (OECD, 2022). Encouraging democratic debates in a healthy and open informational environment is expected to lessen the risk of damage to democracy. Disinformation cannot be excluded completely, it will always exist in different portions, so the goal is to make the communities informed instead of putting restrictions on the freedom of speech. A person with appropriate knowledge is always better at avoiding risks (March, 1997).

Having inherited the Soviet Union KGB techniques, Russia became the biggest centre of disinformation campaigns, which are defined as part of its Hybrid Warfare strategies (Bartha, 2020). Main Russian disinformation narratives include goals about weakening the public’s trust in the EU, stirring up negative feelings about immigration and refugees, turning the societies against NATO, increasing criticism of the US president, portraying Ukraine as a fascist country and a state that doesn’t deserve to exist, undermining liberal values and human rights, as well as organizations that support them (OECD, 2022). As it emerges from this, being resilient to disinformation means the capability of a state, society or individual to resist the attempts to mislead them with the help of social and mass media channels. To avoid this Bartha (2020) suggests a multi-pronged approach, which includes:

- updating laws to counter disinformation
- making media ownership transparent
- educating people of all ages to consume information critically
- supporting independent groups, fighting with disinformation
- strengthening quality control for news programs
- convincing state leaders about the risks of disinformation to societies

On Hungary’s negative example, Bartha (2020) shows what happens when the above-mentioned approaches are not implemented - the country appears vulnerable to disinformation. Hungary’s media landscape was centralized and ultimately controlled by the state authorities, which allowed the ruling party to amplify its messages to the public, publishing them from 100 different sources of information, echoing Russian propaganda narratives. Hungarian news agency MTI doesn't fabricate news itself, it echoes opinions from Russian politicians and media

known for the spread of disinformation, which gets aligned with the Hungarian government's agenda which comes from the close collaboration of the governments of these two countries.

So, building resilience in a triangle of media, government and independent social groups, as OECD (2022) suggested, is ineffective when the government supports spreading disinformation through media and keeps ultimate control over it. Something must be done without the involvement of the state actor. Bartha (2020) argues that supporting journalists' unions and strengthening their self-regulation and professional standards can be effective in this case, as well as activists' assistance for the public in the identification of disinformation and preventing it from further spreading. Disinformation often includes various pictures, which can be easily checked by the reverse Google search of these pictures, knowing such a simple tool will give the public time to analyze the news and the possibility to check the source of information and if it is trustworthy. In the situation when disinformation is showering the public, it is worth teaching individuals to create their own "information bubble", to decrease social media consumption time, giving preference to one or two sources of information which are trustworthy.

Bartha (2020) emphasizes that along with strengthening societal resilience to disinformation, there must be conducted effective work with the political stakeholders, because not all of them are interested in the result of the spreading of disinformation and not all of them get political gains from it, so finding allies in the government can be fruitful for combating disinformation.

Living in a world of technology development which brings enormous informational pollution, societies are in a constant race to fight disinformation. Sources of information get multiplied in geometric progression and soon people will have to distrust everything they see online for the first time, assuming pictures, videos and audio are potentially fake. This can lead to risks of further division and conflicts within societies. Along with the approaches to improving society's information literacy we need new and improved approaches to how to keep them resilient to various sorts of information disorders. History has shown that disinformation campaigns, propaganda and brainwashing have been intensively used before the conflict starts manifesting itself. Disinformation is used as a strong platform for the start of Hybrid Warfare with the further aim of changing the political world order. Manipulation of world history, language and cultural issues has always been a very fertile ground for society's doubts, where seeds of disinformation grow fast.

Chapter 4

Discussion

Following the core objective of the thesis to investigate society's vulnerabilities in the face of large-scale emergencies and the purpose of finding evidence-based strategies for strengthening the resilience of vulnerable communities, facing global threats, it is seen as essential to delve deeper into the history of civilian vulnerabilities in the armed conflicts, to receive critical foundation for further analysis. Contemporary analysis of civilian vulnerabilities based on historical context is expected to give effective suggestions for building societal resilience in times of global threats.

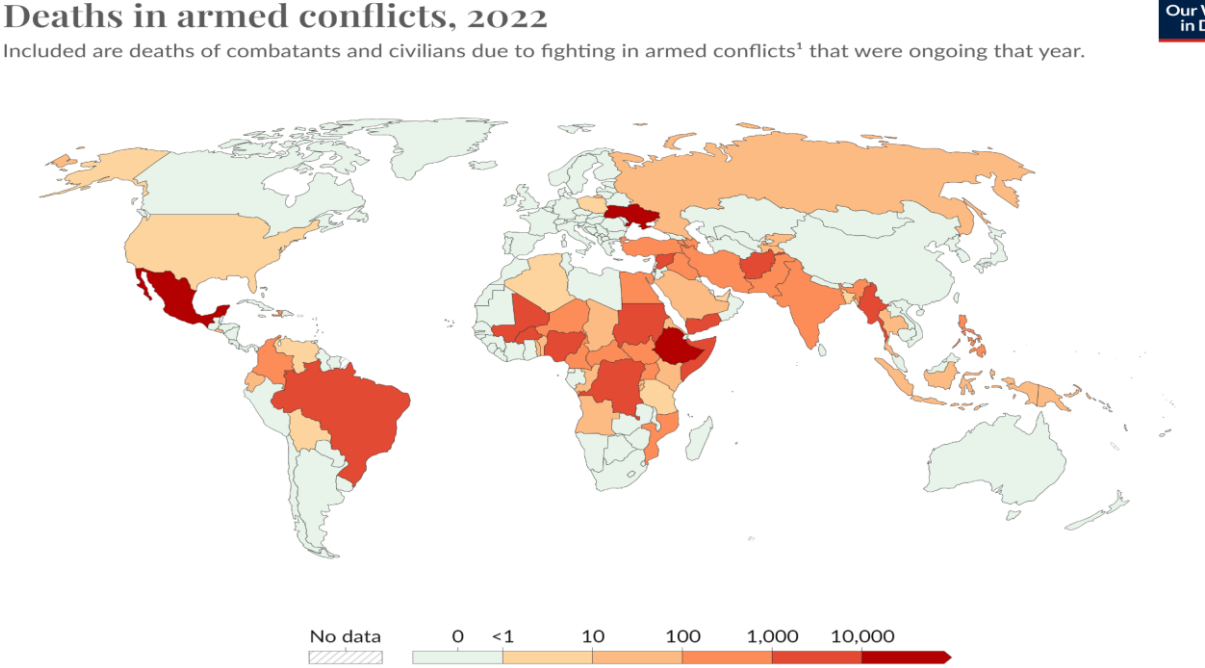
4.1 Civilian vulnerabilities in armed conflicts

Throughout the ages, mankind has faced pervasive risks of wars and various military conflicts. Historically there have been periods of relative peace with occasional large or small-scale clashes, which faded or erupted with a larger scale and severity. While the risks of war always fluctuated, depending on geopolitical tensions, economic situations and competition for resources, the potential for deadliness of civilians in any conflict remained high and always dwarfed those of combatants. Wars always brought chaos, destruction, displacement, malnutrition and long-term psychological trauma to civilians, these factors influenced civilian vulnerability and made the figures of civilian casualties elusive. In addition, a higher risk of violence, sexual crimes and more limited access to necessities have been constantly felt by vulnerable groups of the population, like women, kids, elderly people and people with disabilities, those, who must have been protected by the International Humanitarian Law. However, the complexity of modern war conduction hinders the possibility of safeguarding persons who do not take direct part in the military conflict. Civilians and civilian infrastructure are often used as targets in bargaining or serve as shields by terrorists.

According to Roser et al. (2016), 37 million combatants have died in the process of war since 1800. Still, the number of civilians, who died during the war and as a result of the war, suffering

from hunger, disease, and physical and psychological wounds is quite difficult to count, see Figure 9.

Figure_9 Deaths in armed conflict



Data source: Uppsala Conflict Data Program (2023); Natural Earth (2022)

Source: Roser et al. (2016)

Since 2014 the whole world has been witnessing unprecedended Russian-Ukrainian military conflict, which started from Russia’s 2014 annexation of the Crimea peninsula and seizure of part of the southeastern Ukrainian territory and unfolded into a full-scale invasion in 2022, which has already taken and continues to take a huge number of people's lives. While the exact number of losses among military personnel is known but classified, losses among civilians grow with every missile attack and are difficult to estimate due to the limited access to the territories under the Russian occupation. According to Statista Research Department (2022), the Office of the United Nations High Commissioner for Human Rights informed about 30 457 civilian casualties since the beginning of the Russian invasion of Ukraine till February 15, 2024, however, it was noted that the real number of casualties can be sufficiently higher, 10 500 civilians of this number have been killed and the deadliest month was March 2022, when more

than 3 900 casualties were estimated. Once again, it should be mentioned that these figures are underestimated and the true number of casualties is sufficiently bigger.

As we can see from the report, the risk of civilians being killed or injured is higher at the beginning of the conflict, when indiscriminate attacks on densely populated areas are always a goal for establishing control over the new territories. On the example of the massacres in Bucha, Irpin, Hostomel and Mariupol we can see the scale of genocide that was performed during the couple of weeks after the Russian invasion of Ukraine on 24th of February 2022. Right after the withdrawal of Russian military forces from the north of Ukraine brutal evidence of war crimes became evident. According to Wilkinson (1977), destabilization and bringing fear to society is the main goal of terrorism, by showing what might happen to communities if they refuse to be submitted. Fear is used as a very powerful tool, “kill one to frighten thousands”. The greater part of the terror acts is committed not only to make people discuss and worry about what happened to others but also to show that the same can happen to them (Boin et al., 2016). Russian military forces are known for using such techniques in their hybrid warfare, based on this evidence European Parliament adopted a resolution acknowledging the Russian Federation as a state, sponsoring terrorism (TARCZYŃSKI, 2022).

Civilians are always the most vulnerable at the start of any conflict rather than in the process of it. While local military forces and governmental authorities are getting somehow prepared for the possible outbreak, having access to various data intelligence sources, civilians are usually kept ignorant or even misinformed with the aim of avoiding panic. In this situation with a lack of knowledge, uncertainties are always high due to the lack of information about potential threats or dangers, as a result, communities are more likely to put themselves at risk. In addition, when seeking information, communities get easily manipulated or deceived with disinformation, which may distort their decision-making process. Consequently providing communities with information is essential.

When a potential threat is approaching communities always look for their authorities to comment on it, to explain what is happening, how the situation is expected to unfold and what steps are suggested for them to keep safe and minimize the damage of the threat. Communities' safety and security depend on the fast and professional reaction of their authorities, and on strategies they use to deal with a high degree of uncertainty. World leaders successfully tackle the threats of climate change, which occasionally come in the form of earthquakes, hurricanes, floodings, as well as riots and demonstrations which refer to “known unknowns”. There exist definite scenarios with procedures to follow, which are shaped by regular training and exercises.

But when it comes to the situations of “unknown unknowns” which come as a total surprise, messy emergencies with fast escalation, bringing many threats to public life, authorities have to implement strategic decisions and bear their full responsibility for them. Tackling such situations means dealing with chaos, causing panic in communities within the most affected areas and mobilizing capacities for building resilience (Boin, 2016).

The morning of the 24th of February 2022 was characterized by uncertainty, urgency and enormous threat, which put at risk the existence of Ukraine as a country and the physical existence of its citizens. After military forces of the Russian Federation launched the missile attacks and broke through the border it became evident that Ukrainian authorities had to make fast decisions, orchestrating them on tactical and operational levels. Civilian society though was left somehow on its own trying to manage its issues with relocation from the warfare areas under constant shelling. The famous “no panic” strategy of the Ukrainian authorities (Zelenskii, 2022) left communities vulnerable to the threat, which resulted in enormous losses among civilians, the exact number of which is hard to estimate now. Russian invasion risks were intentionally downplayed by the Ukrainian authorities (Khurshudyan, 2022), many lives could have been saved if they had prioritized the early preparedness of the population for the health of the economy, which might have lost 7 billion dollars in case people had been warned and fled (Sly, 2022). So, in the conditions of the absence of immediate assistance from the authorities, Ukrainian communities started to express remarkable resilience by self-organizing for defence and mutual support.

4.2 The Phenomenon of the Territorial Defence Units in Ukraine

Throughout history, Ukrainian society has always been marked by a high level of resistance. Recent experiences with the Russian invasion and annexation of the territories in 2014 have taught the communities to recover from the shock and return to life, feeling stronger and enduring challenges on their own. Throughout history, we find examples of this special ability of Ukrainian communities to stand up and fight. The self-organized Territorial Defense Units played a crucial role in hampering the Russian invasion goals. The small-scale units, which consisted of average people, managed to slow down the pace of the Russian militaries by using guerilla tactics and providing intelligence data to the Ukrainian militaries. The phenomenon of self-organized Territorial Defense units served as a moral incentive not only for local

communities of Ukraine but for the whole world, giving an example of how resilience was tempered. Average people with weapons in their hands successfully confronted the Russian professional militaries, while elderly people, ladies and kids took care of provision and material support.

The Ukrainian Territorial Defense model has proved its effectiveness. Having been organized under the National Resistance Law (Zelenskii, 2021) this model allowed mobilizing the large force for widespread resistance in the shortest time possible, omitting bureaucracy. In just two days after the beginning of the Russian invasion of Ukraine on 24 February 2022, 50,000 people joined the Territorial Defense Units, and in less than 3 hours the mobilised were ready to defend the country (Bielieskov, 2023). The national resistance model with its widespread deployment had a severe influence on the enemy's forces, having caused significant casualties and military equipment losses, hindering their ability to advance deeper into Ukrainian territory. According to Zarembo (2022), at that time there were up to 80% of the Ukrainian population was involved in defending their homeland against the enemy by participating in logistics, humanitarian help, informational and intelligence support and guerilla warfare.

Getting back to the 3D Resilience Framework (see Figure 2) we can see how absorptive, adaptive and transformative capacities successfully work together as main components of Ukrainian resilience. Based on the knowledge about the first Russian invasion in 2014 and risk assessments of the second Russian Invasion, the urgent need for local protection measures became evident, so the National Resistance Law was issued. According to Zelenskii (2021), “the creation of the system of national resistance in Ukraine is a strong signal to all that our country will defend itself, prevent the events of 2014 and that the defence of Ukraine for us is a nationwide affair”. It has taken a couple of years for a society to transform and finally to have a reason to use this model successfully. As it was noted by Mitchell (2013) what is meant by strengthening society's resilience is giving society tools and skills to deal with risks and then to receive benefits from this experience in future. The Ukrainian Territorial Defense model is a very suggestive example which deserves further research, evaluation and wider implementation.

4.3 The Nova Kakhovka Dam Breach Case

One more bright example of Ukrainian resilience refers to the rescue operation after the destruction of the Kakhovka Hydroelectric Power Plant by the Russian military forces on the 6th of June 2023, which turned into a true genocide and ecocide on the territory of Ukraine. According to Additional Protocol I of the Geneva Conventions it is forbidden to destroy “objects indispensable to the survival of the civilian population” (United Nations, 1977). Special emphasis is placed on dams, the destruction of which leads to tremendous damage to the ecology and population, therefore they should not be engaged in any sort of conflict. The United Nations (2023) was impressed with the remarkable resilience that Ukrainian society has shown in that abhorrent situation it had been put into and defined it as a top priority to ensure Ukrainians with survival and rebuilding assistance efforts from its side. But it takes sufficient time to turn bureaucratic decisions into real deeds, time which could have cost the lives of those Ukrainians who were sitting on the roofs of their flooded houses in the occupied territories, begging for drinking water and food. Volunteers were the first who started the rescue operations, average people on the fishing rubber boats, who evacuated people, domestic animals and pets from the zones, trying to escape from regular shelling of the Russian Army Forces, see Figure 10.

Figure_10 Evacuation of civilians from the flooded territories after the breach of the Nova Kakhovka Dam



Source: European Commission (2023)

This early direct involvement of volunteer assistance in providing help with evacuation helped to reduce the casualties of civilians significantly and was a vivid example of how resilience is built in the early stages without the support of complex bureaucratic systems and showed its high effectiveness. When governmental and international assistance arrived, average Ukrainian citizens had already mobilized their resources and organized the rescue of people and animals from the flooded areas, which estimated 600 square kilometres and 68 per cent of this territory were under Russian occupation, see Figure 11.

Figure_11 Areas for evacuation

Villages and towns worst hit by flooding



Source: BBC research



Source: BBC News (2023)

As can be seen from Figure 11, the scale of the flooded territories under evacuation, the ongoing warfare and the mined areas allow us to categorize the event as the unknown unknowns for the communities who were ignorant and became hostages of the situation. However, the event can be categorized as known unknown for the Ukrainian authorities, who had been aware of the intentions of the Russian Federation to blow up the dam after they had kept it mined since April 2022 (Prokip, 2023). Following Béné et al. (2012) Protection-Prevention-Promotion-Intervention Framework in Figure 3, we can assume that protection and prevention proactive measures in building preparedness of the Ukrainian communities living in the affected areas would have been vitally important. Ukrainian authorities should have thought of reducing the

level of high probability of the disaster and its negative consequences. Getting back to Figure 4 we see that during the first few days after the breach of Kakhovka Dam on the 6th of June 2023, due to the efforts of the local resources the system was able to recover to level 1 after having dropped to 0 level, having faced the tremendous disaster. Despite the high level of existing risks in the area of Kakhovka Dam, initial intervention measures provided by authorities were not enough, so the immediate response with a focus on rescuing people, and domestic animals, giving them shelter and first aid was performed by self-organized local volunteering groups. With time, the community resilience was raised to level 2 after further governmental and international assistance, which was quite limited due to the floating mines, ongoing warfare and the occupied status of the territories under the flooding. According to the United Nations (2023), limited access hindered the risk assessment as well and experts had to rely on remote sensing and data analysis. But despite the access limitations, the report emphasized the urgency of tackling the situation, and immediate as well as long-term remediation efforts to mitigate the damage.

According to the Unified Register of Persons Disappeared Under Special Circumstances, there are currently 37.961 persons who have been given this status. These are military, civilians, and children, the number of whom is estimated at 2.124 (gov.ua, 2023). It should be noted that the Unified Register includes information after having been notified about the missing person, so the real quantity of the disappeared people, about whom the Unified Register was not informed, remains unknown. Since the beginning of Russia's full-scale war against Ukraine, 10.233 civilians have died, and another 19.289 have been injured. More than 100 Ukrainians die in Russian captivity, including one child. The number of refugees from Ukraine reaches 6.3 million worldwide, and 80 % of them want to return to Ukraine (Statista Research Department, 2022). Could these numbers be less? Could there have been fewer civilian deaths and casualties if the public had been warned and prepared before the possible full-scale invasion of Russia into Ukraine? These are the questions which are always in the air, but remain unasked and unspoken officially, due to the special circumstances Ukraine has been living through since 24th of February 2022.

Specifically for this research, interviews were conducted among 100 Ukrainians, who survived the full-scale invasion of Russia into Ukraine. Due to the sensitivity of the information people responded in conditions of absolute anonymity, they preferred not to disclose their names or any other personal information but shared their pain, their voices were trembling and sometimes they could not hold back their tears. Along with the answers to the planned questions, there

were always stories from those who survived Russian occupation but had to bury their killed neighbours in the yards of their houses, stories about staying in basements with kids for days without access to food and water, next to the dead bodies of people who were killed or died from injuries. Every word revived their suffering and was a reminder of the countless victims who are still haunted by the brutality of war in the form of nightmares and phobias. Can the approximate numbers of statistics give the real picture of tragedies that people came through?

4.4 Analysis of Interviews

The sample included 100 interviewees, who were physically present on the territory of Ukraine at least five months before the full-scale invasion of Russia in Ukraine in February 2022 and at least four months after it. The study included adults between 18 years old to 80 years old, who agreed to share their information on conditions of full anonymity.

In answer to the first question “Did you receive enough information from your authorities as to the possible Russian invasion before it happened?” 88 out of 100 interviewees answered that they lacked the necessary information and guidance from the local authorities about what should have been done in case of military invasion, they were not aware of the location of the bomb shelters, meeting points for evacuations and help centres, nor were they informed of their existence. 63 out of 100 responders mobilized their resources despite risks to their safety and helped others to get prepared for local defence or evacuation. 12 interviewees answered they had relied on “fate” and did not care, 8 people received information about the possible military invasion from their friends from abroad and moved to Poland on their own a few days before the full-scale invasion, having had trusted their gut feeling. the sample did not include people with disabilities, but responders shared shreds of evidence about disabled and partially impaired people who were trapped in their apartments, either alone or with their family members, who could not leave them and faced sufficient difficulties with evacuation. Kids, elderly and disabled people from the affected areas of Ukraine, who had been living close to the border with Russia, were put in a situation of high risk to their health with the start of the full-scale invasion. Having been poorly prepared and even misinformed by the government (Zelenskii, 2022), the population of Ukraine entered the absorption phase of building its resilience with enormous losses of civilians. According to Mitchell (2013), strengthening societal resilience means giving the society tools and skills to tackle risks, so that to receive benefits from this

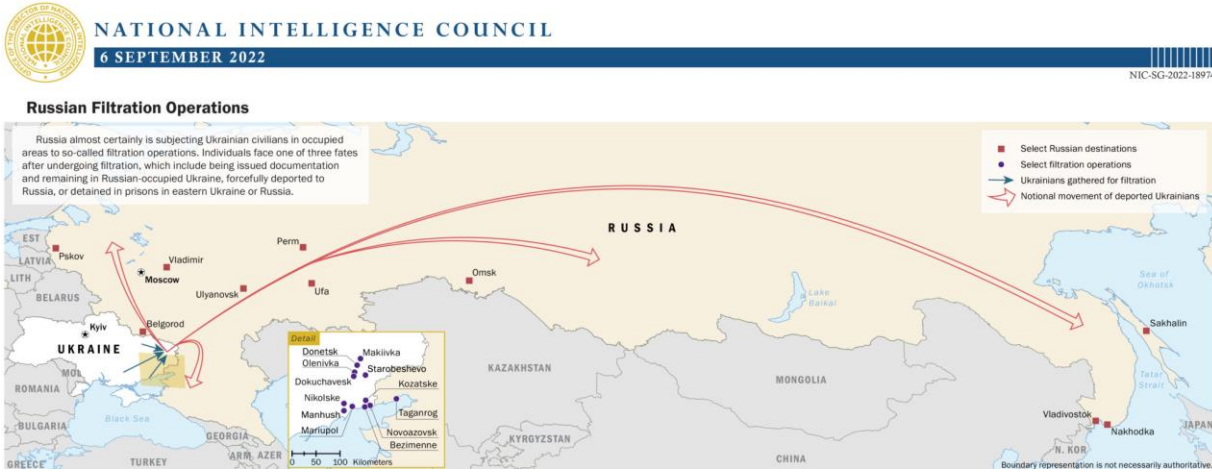
experience in future. In the Ukrainian scenario, the first stages of societal resilience were built with the absence of the above-mentioned assistance, but on the pure national spirit of consolidation, unity and desire to help each other facing the warfare risks. Volunteers, average citizens and non-governmental organizations were delivering water, food and organizing evacuations from the occupied territories to the territories of different countries and unfortunately including the territories of Russia, as it happened with Ukrainian children who were forcibly transferred to the Russian territory (Ioffe & Umland, 1 C.E.). Ukrainian civilians were put into a survival model and had to face a hard choice - either to stay on the territory of warfare or to trust volunteering strangers in relocation to a safer place. The survey, conducted for the research, shows positive experiences, when respondents felt grateful to those who helped them to move to safe places, as well as those who had to come through the Russian filtration camps, where they were strip-searched for nationalistic tattoos, contacts and contents of their smartphones, abused and tortured (U.S. Department of State, 6 C.E.).

4.4.1 Unlawful Deportation of Ukrainian Kids Case

There are several stories about Ukrainian kids, who were abducted from their families under the guise of rehabilitation at the summer camps on the territory of the Russian Federation, where they had to go through the reeducation process, which denied their identity, roots, and mother tongue. It required enormous attempts for the governmental and non-governmental agencies to return several Ukrainian kids to the territory of Ukraine, but the greater number of Ukrainian kids remain on the territory of the Russian Federation and the quantity remains unknown.

Due to Ukraine - Russian length of the border, which before the first invasion in 2014 was estimated at 2,295.04 kilometres, from which 1,426 kilometres was a land border and 321 was a sea border, the risk for civilians living in the areas close to the Russian border had to be estimated as high. Based on the experience of the first invasion in 2014 and using the strength of knowledge, based on pieces of evidence as for high probability of a full-scale invasion in 2022, the protection and prevention measures according to Béné et al. (2012) in correspondence to the 3D Resilience Framework (see Figure 3) should have been implemented. After the occupation of part of the southeastern territories of Ukraine in 2014 and further occupation as a result of the full-scale invasion in 2022, the risk of forced evacuations increased sufficiently, see Figure 12.

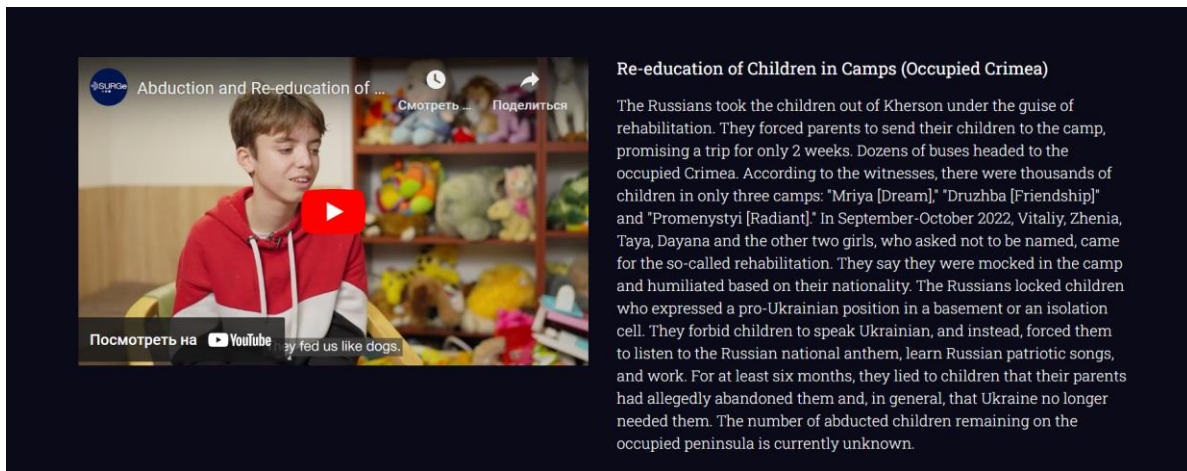
Figure_12 Areas of forced evacuations of Ukrainian citizens from the territories, close to the Russian border



Source: U.S. Department of State (6 C.E.)

Warrants were issued for Russian President Vladimir Putin and Russia’s Commissioner for Children Rights Maria Lvova-Belova, for the unlawful deportation of Ukrainian children, which was defined as a war crime. More than 700,000 children have been unlawfully displaced from the territory of Ukraine since the 24th of February 2022, most of them were separated, adopted and re-educated under Russian propaganda, where various sorts of manipulation and disinformation techniques were used to grow hatred towards their homeland. Only 395 kids managed to return to Ukraine by the 1st of August 2023, being deeply hurt and devastated (International Criminal Court, 2023). Disinformation in the form of Russian propaganda was widely used for the reeducation of the displaced Ukrainian kids, when they were made to listen to the “patriotic” lectures at schools, to percept information about the “heroes” of the Donetsk and Lugansk self-proclaimed republics Mälksoo (2022). Such “brainwashing techniques” have shown a very powerful effect on the majority of the population of Russia inside and outside the country, which results in justifying the goals of the military operations, which the Russian Federation has been conducting. As well as justifying the abduction of Ukrainian kids by rehabilitation goals, see Figure 13.

Figure_13 Stories of the abducted children, who were successfully returned to Ukraine after unlawful relocation



Source: Mälksoo (2022)

4.4.2 Resilience Preparedness Ratio in a Civilian Contest

Preparedness and resilience are never as stable, they are intertwined by reinforcing each other. When communities face crisis, preparedness measures are implemented to build resilience in these communities and a strong resilience foundation raises preparedness for risks in future.

Could Ukraine have avoided civilian losses if protection and prevention measures had been implemented based on the strength of knowledge, stemming from the intelligence information that Ukrainian authorities started receiving from foreign sources as early as October 2021? Instead of protection and prevention measures, they were playing the guessing game, assessing the invasion capabilities of Russia and choosing to misinform the population about the potential threats until these threats appeared to be inevitable on the morning of the 24th of February 2022.

Consequently, the most vulnerable part of the population of Ukraine, living in the north, northeast, east and south-east were first to suffer from the warfare. According to the Protection-Prevention-Promotion-Intervention Framework by Devereux and Sabates-Wheeler (2024) vulnerable groups of the populations, like orphanages and disabled groups of people are to be first to receive protection and prevention measures, especially when it comes to disaster risk reduction context. With the absence of timely protection and prevention measures from the Ukrainian authorities, the vulnerable groups of the Ukrainian population were put into a

situation where they had to accept the assistance of Russian authorities, trying to survive the warfare under the Russian occupation and propaganda. At the same time when civilians were trying to survive the missile shelling and atrocities, performed by Russian soldiers, Ukrainian authorities provided the population with strategic communication through social media, promoting national heroism, unity and the fight for justice. Ignoring the potential hazards, civilians were encouraged to use their smartphones to report the movements of the Russian troops and their positions, but again they failed to inform about losing the status of protected according to Geneva Conventions in case their actions were interpreted as direct involvement in the warfare (Phythian & Strachan-Morris, 2024).

Analysis of the interviews, conducted for this study, shows that in answer to the second question “What would you do before the 24th of February 2022 if you had the information about the full-scale invasion of Russia in Ukraine you have now?” 67 out of 100 interviewees answered that they would have left for a safer place (the western part of Ukraine or abroad) sufficiently earlier and their relocation would have been safer, better planned and less challenging in case of early warning from the authorities. The rest answered they would have stayed and tried to manage the situation in the places depending on personal reasons. 32 of 100 interviewees answered they would not have made a mistake by leaving Kyiv and getting to the small cities and villages in the north, like Gostomel, Bucha and Irpin, where they had found themselves defenceless facing all those atrocities of the Russian Army during the first days of the full-scale invasion. 22 of 100 interviewees answered that their elderly relatives would have survived if they had had more time to organize their evacuation. 13 out of 100 said they would have chosen another route rather than the highway Kyiv-Zhytomyr, which was called later “Safari Highway ” where Russian soldiers were shooting passenger cars at a shooting range at the end of February - beginning of March 2022. 17 interviewees thank God for having left Mariupol city earlier before the full-scale invasion but are sad to admit they still cannot get in touch with some of their neighbours, relatives and friends, who have been considered missing since March 2022. The majority of the interviewees admit that they underestimated the information about threats, which was spread by some social channels and in addition, they were misled by the absence of clear instructions from the Ukrainian authorities as to the risks for civilians living in the areas of the possible warfare as well as reassuring messages from the President of Ukraine before the Russian invasion.

Analysis has shown sufficient drawbacks in the preparedness information campaign in Ukraine, which resulted in enormous civilian loss. Ukraine has been facing Hybrid Warfare, orchestrated

by the Russian Federation, which influenced its political, economic, civil and information spheres. Disinformation was spread by the Russian authorities when it was stated they were not going to invade Ukraine, but these statements were in contrast to the actual and evident accumulation of military troops in the eastern and northern parts of Ukraine. Along with the manipulation of language issues, historical facts, common roots and “brainwashing” schemes, it was quite complicated for the Ukrainian authorities as well as for the majority of the democratic countries of the whole world to assess risks and predict the true intentions of the Russian Federation. For the sake of avoiding panic and keeping the economy of Ukraine on a firm level, Ukrainian authorities preferred not to disclose information about the potential risks for civilians connected with the high probability of Russian invasion.

So according to Logan et al. (2022), when we define the system, we speak about the resilience of this system, so in our case, we speak of the resilience of the Ukrainian system. When we define an event, we speak of the resilience of the system to this event. In our study, the full-scale invasion of Russia in Ukraine on the 24th of February 2022 is defined as the event in which we analyze the resilience of the Ukrainian system. When we define the consequences of the event, we speak of the resilience to the consequences, in this study, we examine the resilience of the system to the loss of the civilian population. By emphasizing the uncertainties about the consequences of collective choices, decisions and events, we show what determines risk, in our case, it is disinformation and hybrid threats, widely used by the country aggressor and misinformation from the local authorities. When we speak of inherited resilience, we take into consideration, what we receive from the treatment of risk in the form of adaptation and transformation of the system, which reduces the probability of risks in future, so in the Ukrainian case we receive the improved transformed national system with self-organized small communities, ready for rescue and defence operations. Despite the initially low preparedness, civilian and military loss, and quite obscure future risk picture, the Ukrainian system, based on national identity keeps on growing and strengthening.

4.5 The Role of Volunteers in Societal Resilience

Special emphasis should be given to the role of volunteers in strengthening the resilience of the Ukrainian system, they have been active inside of Ukraine, as well as outside the country in the majority of countries of the whole world. They are functioning alone or in groups of several

people, accumulating funds, organizing charity events and buying all that stuff that is urgently needed for Ukrainian soldiers on the frontline. Such assistance is very valuable because it is fast, directed at satisfying the exact urgent needs of affected civilians and the soldiers on the front line and helps to avoid the long bureaucratic procedures. Fundraising for military needs is usually organized by the average people, journalists and warfare analysts, representatives of the military troops and even kids through social media nets, such as Telegram, Facebook, TikTok, Instagram, etc. Fundraising of the most popular Telegram channel [vanek_nikolaev](#) is usually covered within a few hours due to the high trust among militaries and civilians.

A special contribution to the resilience of the Ukrainian system is made by the Ukrainian diaspora abroad. Much has been done by the people with Ukrainian roots, who have been living in different countries other than Ukraine for a long time, as well as foreigners, who support Ukraine. Ukrainsk Forening I Rogaland organizes regular events for fundraising for military needs as well as provides communication assistance to wounded Ukrainian soldiers, who are receiving rehabilitation in Norway.

With the start of the full-scale invasion of Russia in Ukraine, there were long lines of volunteer passenger cars on the border with Poland, suggesting their logistic help for refugees. Average citizens of the EU countries brought clothes and food to the refugee centres and helped with their first needs.

Volunteering assistance plays the role of first aid after a missile strikes in public places when people lose their shelters and all their belongings, see Figure 14.

Figure_14 Volunteers give help after the missile strike on the high rise in Dnipro city



Source: IMAGO (2023)

Average citizens get self-organized and assist people with blankets, clothes, food and open the doors of their homes for those who lost everything as a result of the missile strike. Such gatherings have always been very characteristic of Ukrainian society since ancient times when people with different views, feelings, and positions about what was going on and who was the reason for it, gathered under the common goal - to provide help where it is needed. Innate resilience has always been a defining characteristic of Ukrainian society and served as a strong foundation for the Ukrainian system's ability to withstand a full-scale invasion. According to Mälksoo (2022), despite of high rate of stress, feelings of danger and low level of life, Ukrainian society demonstrates a high level of resilience and hope, which shows that war plays a transformative role in national awakening, which resulted in national unity, solidarity, cohesion and self-organization, which made the strong foundation of the resilience of the Ukrainian system. Volunteers contribute greatly to the cohesion of the society and their capacity building. By fostering and encouraging the volunteering culture, a more resilient and secure future can be built. By providing conditions for educational centres, and organizing meetings and workshops the volunteering culture can develop and give fruitful results in future.

4.6 Origin of the Innate Ukrainian Resilience

Both Russia and Ukraine's allies underestimated the innate national resilience within Ukrainian society. Russia's initial plan to capture Kyiv within three days was a clear example of a huge mistake, based on a miscalculation of the role of the national identity, which even Vladimir Lenin acknowledged and cautioned against it in 1917 (Lenin, 1917). Similarly, Ukrainian allies, who are very supportive now, used to be initially hesitant to provide military assistance to the full extent (Fedyk et al., 2023). But Ukrainian resilience, based on the national identity has been tempered since the Orange Revolution in 2004, later on during the Revolution of Dignity in 2013 and the first invasion of Russia in Ukraine in 2014. So societal resistance and self-organisation was not a miracle, it has been tempered and strengthened during many years of Ukrainian history. So when speaking about tempered resilience, we mean the inherited resilience of the Ukrainian system, which resulted from the treatment of risks in the past and transformed the system to such an extent that it was prepared for facing similar or even more serious risks in future. It would not be possible to describe the long and complicated process of transforming the Ukrainian system by choosing ordinary risk management language, because it deals mostly with known risks. In contrast, the Ukrainian system faced risks which were unknown not only to Ukraine but to the whole world. The resilience approach has a broader perspective, where uncertainties and complexities are acknowledged and when we speak of tempering resilience, we mean receiving tools and skills from the system to benefit from it in future. The inherited resilience of the Ukrainian system is not something that is taken for granted, it cost lives and injuries of civilians, participating in the Orange Revolution, Revolution of Dignity and the first invasion of Russia into Ukraine.

Ukraine's resilience can be viewed as a continuous cycle of adaptations and transformations. The system has been moving through a dynamic process where it had to absorb challenges, adjust its responses and transform itself in response to the new threats. These changes have always been interconnected and reinforced each other, contributing to the system's strength. Unlike the human immune system, which learns from vaccinations about the potential of future diseases, Ukraine has been confronting real-world threats for years until Ukraine's resilience system was tested in the face of the full-scale invasion.

The Revolution of Dignity in 2013 and the first invasion of Russia in Ukraine in 2014 put Ukraine at risk of losing its existence as a sovereign independent country. By this time the Ukrainian Military Forces were artificially weakened by the governancy of the former president of Ukraine Victor Yanukovich, who was a puppet of the president of Russia Vladimir Putin. Having been influenced politically and culturally by the neighbouring country, Ukraine became vulnerable before the first Russian aggression in 2014. It lost control over part of its territories of the Lugansk and Donetsk regions and the Crimean peninsula. Having started the defensive operation, it became evident that Ukraine was too weak to resist the enemy, so despite wide criticism (Powirska, 2022), along with much criticism about negative points, Minsk Agreements I and II gave time for Ukraine to restore military strength and raise preparedness for the future risks.

The resilience of the Ukrainian system has been intensively strengthened during the last 7 years after the first invasion of Russia in 2014. The imperialism appetite of the Russian Federation became evident, so there was no other way, but to get stronger, while having a common border with such an aggressive neighbour. Since the Russian language as a common language and Orthodox Faith as the common faith have often been used to justify the annexation of Ukrainian territories, Ukrainian authorities set a national goal “Ukrainian Army, Ukrainian Language and Ukrainian Faith” which meant rebuilding the system with an emphasis on rebuilding all the systems according to these national principles.

4.7 Reconstruction of the Ukrainian Armed Forces as a Part of Building Resilience.

Ukrainian experience has shown the vital role of strong armed forces in fostering societal resilience. A more secure and stable future for the society with investments in defence capabilities. In addition, the tight cooperation between the civilian and military sectors can bring positive results during the crisis.

After long years of intentional neglect of the Ukrainian Army by the pro-Russian president Viktor Yanukovich, it was very expected that in 2014 Ukraine could deploy only 6.000 combat troops out of 130.000 military personnel and its defence budget was less than 1% of GDP since the year 2009 (Osborn et al., 2014). The first step was the restoration of conscription, which saturated the Ukrainian Army with fresh forces. After the first invasion of Russia in Ukraine in

2014, Ukraine relied primarily on volunteer forces, existing on donations and supported by the Ukrainian military. However, these groups often faced challenges due to a lack of coordination and timely information, so they mostly lost on the frontline, like what happened with the Ilovaisk tragedy when, they failed to hold the enemy, got surrounded in a cauldron and were massacred (Viacheslav Shramovych, 2019).

There was too little time for building a professional contract army, so Ukrainian authorities started mobilisation waves of the Ukrainian civil society until a new Strategic Defence Bulletin was introduced in 2016. It outlined the four-year plan for the Ukrainian Armed Forces' modernisation to meet NATO standards. President Petro Poroshenko presented it as a historic transformation of the Ukrainian Armed Forces, which reflected Ukraine's aspiration for closer ties with NATO and accepting the support of the public in the conflict. Unfortunately, the military funding and reforms sufficiently ceased with the start of Volodymyr Zelenskii's presidency. Ukraine had to resume mobilising civilians into the Ukraine Armed Forces with the beginning of the full-scale invasion of Russia in 2022. And again volunteering groups in the form of Territorial Defence Forces were first to face the enemy's attacks. Unfortunately, they underwent sufficient losses during the first few weeks, when they had to confront the well-equipped professional army of the Russian Federation. Despite losses, the Territorial Defence Units continued defending communities and developing their warfare skills and experience. When the war is over, there will be more possibilities to make a thorough analysis of their contribution to societal resilience. It gives us a vivid picture of the resilience of the Ukrainian system, which is developing in a spiral way, facing the same mistakes over and over again.

A remarkable point in Ukrainian resilience history was the development of the Special Forces of Ukraine as an agile and adaptable force, which started functioning in 2016, thankful to the military reform. Having been known as SSO, they enrol true professionals in their elite units, trained to perform exclusively complicated and clandestine tasks, see Figure 15. Their work is anonymous and one can find neither the names of the operators nor the details of the operations, which have been conducted, only the enemy loss can serve as a sign of the successful operations performed by SSO units.

Figure_15 SSO of Ukraine



Source (Chernov & Hinnant, 2023)

Ukrainian Armed Forces have been building their resilience to correspond to the challenges of modern Hybrid Threats they have been facing. Their experience is valuable not only for Ukraine as a country, which is trying to resist the aggression of its neighbour at this moment, but it is equally important to those countries, who have been living in a situation of relative peace during the last decades. Ukraine has valuable experience in combating Hybrid Threats, disinformation in the form of Russian propaganda and regular terror attacks in the form of missile shelling of civilian objects. It has been already more than two years since the full-scale invasion of Russia in Ukraine in February 2022 and eight years since the first invasion of Russia in Ukraine in February 2014, that Ukrainians have been living and functioning under the conditions of warfare on the territory of Ukraine. Along with the development and strengthening of the military component of the Ukrainian resilience system, civilian society has been acquiring valuable experience in how to resist threats of different origins, how to adjust to the insecure environment and continue functioning in it, and how to recover the balance after the crises. Societal resilience is the pivotal point in increasing the Ukrainian resilience system, contributions of the average civilians were the core element which crashed the success of the Russian full-scale invasion during the first few weeks after it was started, see Figure 16.

Figure_16 A woman from the Kyiv Territorial Defense leading a child by the hand through a pedestrian crossing near the Kyiv railway station



Source: uainfo.org (2022)

It did not take long for the Ukrainian society to get self-organised and start defending their territories - the entrances to the big and small villages, and cities were equipped with fortified block posts and checking points, which raised the local security level. Every single citizen became a sentinel and was on high alert when encountering strangers, especially those speaking with a foreign accent. The bomb shelters were supplied with water and blankets to satisfy the needs of kids, elderly people and people with limited physical abilities. Regular patrols were performed under the conditions of cooperation between military and civilian sectors to maintain order and deter potential threats.

The societal component of the Ukrainian resilience system is a remarkable phenomenon, which can be used as a fruitful fundament and example for building resilience in the countries of the EU, as well as Scandinavian countries, especially those, which have common borders with the Russian Federation and consequently are under a high risk of Russian aggression nowadays. Civilians, who are traditionally considered vulnerable to the risks of terrorism, disinformation, warfare and other hybrid threats, turn into powerful transformation agents under the condition of cooperation with the military sector and create a fruitful fundament for absorbing shock after the crisis, adjusting to the new life circumstances and creating a new and resilient community.

Ukrainian experience shows how communities can be self-organised, and cooperate with the military sector, becoming a leading force in post-conflict recovery.

4.8 National Language in Building Societal Resilience.

Language has always been an element of culture and a tool for communication. People use language to share information and identify themselves as a nation. But along with it, language can be used as a weapon and a reason for military aggression, like what happened in 2014 when the Russian Federation justified the annexation of Crimea and part of the Lugansk and Donetsk territories by the necessity to defend the Russian-speaking population living on those territories (Iaschenko, 2023). Employing disinformation techniques, there have been created myths about Ukrainians as Nazis, who are persecuting Russian-speaking people, their traditions and their faith.

After gaining its independence in 1991 Ukraine has developed as a bilingual country, where communities felt free to use both Russian and Ukrainian languages for communication and those who used the Russian language did not necessarily identify themselves as ethnically Russians (Matviyishyn, 2020). The Russian language was used in the Ukrainian governmental and educational institutions, as well as in the scientific field. After disinformation, spread by Russia in 2014 about the suppression and atrocities of Russian speakers, living on the territory of Ukraine it has become evident that Ukraine has to grow its resilience in the field of culture and language. The 5th President of Ukraine Petro Poroshenko has chosen the direction of the development of national identity, where “Ukrainian Armed Forces, Ukrainian language and Ukrainian Faith” are the core principles of national resilience (Poroshenko, 2023). Having seen the huge discrepancy between the Ukrainian reality and the disinformation, spread by the Russian media in the Russian language, the number of communities of Russian speaking communities in Ukraine decreased sufficiently, and more and more people preferred not to use the language of the country's aggressor and avoid watching Russian TV channels, which spread propaganda.

Ukrainian language as an element and a very strong fundament for community resilience is used now as an identification of aliens not only on the front line of warfare but among civilians as well and the young generation acquires natural resistance to the Russian Language as a means

of communication. So the oppression of the Russian Language in Ukraine as an artificially created reason for the military aggression in 2013 became a reality and the Russian language was not welcomed any more and even banned not only in Ukraine, but in Ukrainian diaspora abroad.

The Ukrainian language has become an essential component of the Ukrainian resilience system, which embodies national identity and morale, helps to resist manipulation, disinformation and propaganda, spread by the Russian authorities and serves as a sign of opposition to Russian aggression.

4.9 Orthodox Church of Ukraine (OCU) in building Ukrainian resilience.

Faith plays an essential role in fostering community resilience. With spiritual guidance, emotional assistance and compassion it is easier to come through the crisis times. Religious institutions serve as centers of gathering, where people feel safe, and united under common goals and views. Though religious neutrality and the separation of church from state has been widely advocated in Ukraine Fedchyshyn (2020), some of the churches were entangled with politics, having been influenced and supported by Russian religious centres and conducting Russian propaganda on the territory of Ukraine. Based on evidence that the Ukrainian Orthodox Church of the Moscow Patriarchate may be supported and financed by the Russian authorities, the risk of its alignment with Russian political goals has become evident (U.S. Department of State, 2022). The justification of the Russian aggression and pro-Russian narratives, which were conducted at these churches undermined Ukrainian identity and there appeared urgent necessity to differentiate the Orthodox Church of Ukraine from the Ukrainian Orthodox Church of Moscow Patriarchate. Following these conditions, the autocephalous status was granted to the Orthodox Church of Ukraine by the Patriarchate of Constantinople under the initiative of the 5th president of Ukraine Petro Poroshenko (Ecumenical Patriarchate, 2019).

The creation of OCU adds to the strengthening of national resilience in the humanitarian dimension serving as a generator of social consolidation. Religious independence of the Ukrainian church is a historical event which added to the sense of national unity and identity, especially during the time of military aggression from the country, whose church justifies it. During the ongoing war conflict, the OCU gives Ukrainian communities comfort, and moral

and spiritual assistance, guiding people through historically challenging times (Higgins & Mazhulin, 2023).

In addition to spiritual assistance, OCU serves as a very powerful communication centre which is countering the spread of Russian propaganda and disinformation. Ukrainian society faces an enormous amount of information, directed at destabilization and subversion, to sow doubts about Ukrainian history and legitimacy. There is a special need to analyze and explain this information to the public. Conducting sermons exclusively in the Ukrainian language, OCU priests directly address communities, communicating information, that the Ukrainian communities encounter, building trust and promoting critical thinking. When countering Russian propaganda spread by Russian priests, who are aligned with the Russian authorities it is essential to delegitimize their statements with the help of OCU priests, who carry the relevant authority and weight for the public.

In contrast to the alienated conservative Russian Church of Moscow Patriarchate, OCU is more open to communities, encourages dialogue and discussions for different social matters, is more engaged in local groups of various ages, and corresponds to their interests and needs. Communication plays a vital role in strengthening the community's resilience. In challenging times societies expect explanations from the authorities as to what happened, what steps are being implemented for their safety and security and what the plan is. The first invasion of Russia into Ukraine in 2014 showed the huge discrepancy between the morals of the Russian church of Moscow Patriarchate and the Ukrainian reality, many Ukrainians felt their faith was betrayed when the Russian Orthodox Church justified military aggression. The full-scale invasion in 2022 Ukraine has been religiously resilient, fully supported by OCU's spiritual guidance. With years it grows trust and respect of Ukrainian communities, serving as a physical and moral shelter for people in Ukraine and Diaspora abroad. Taking into consideration the facts that the Russian Federation is constantly looking for ways to influence public opinion, the service of Russian priests in Scandinavian countries as well as in the countries of the European Union can be acknowledged as a risk of spreading disinformation and propaganda, therefore mitigating measures should be implemented to safeguard the communities, especially those living under the conditions of religious freedom.

Chapter 5

Conclusions

Ukrainian resilience is a multifaceted phenomenon, constantly evolving under challenging conditions. Considering the ongoing geopolitical changes and regular threats from the Russian Federation, the way how Ukraine is building and strengthening its resilience deserves special attention from scholars and their further study. Ukrainian experience suggests a vivid case study of how resilience has been built under circumstances of existential risks. The survival of Ukrainians as a nation as well as the existence of Ukraine as a country, along with the well-known and accepted facts from its history and culture were put under doubt by the aggressive neighboring country and used to justify the invasion.

Ukrainian society has faced the most unpredictable and complex risks in history. Having received minimum warnings from the leaders, local communities had to tackle the unforeseen and unpredictable threats previously underestimated by the governmental authorities. Based on the innate national resilience level, the civilian population of Ukraine, which had been considered vulnerable, showed their potential as a surprisingly resilient system, which can absorb shocks of military invasion, regular missile shellings, flooding and atrocities, conducted by the enemy forces, and go on functioning and getting stronger every day. The world could witness the birth of a new level of Ukrainian resilience, based on the national idea, where National Armed Forces, Language and Faith became the strong foundation for its transformation and further development.

Following the results of the interview, conducted for this study and considering the case studies, having been analysed in the main part, the vital necessity of empowering civilians with clear values becomes evident. Clear values based on national ideas could turn communities into powerful resilient systems, which can face modern risks. Since the nature of risks nowadays is constantly changing and evolving, getting more unforeseen and unpredictable, and the governmental authorities often lack a certain level of diplomacy and proficiency to be able to tackle them, it is essential to enhance the resilience of the local communities and use their expertise, proficiency and dedication, stemming from the national idea. Civilians represent people of different professional backgrounds, medical workers, retired militaries, engineers and ITcians, who are eager to learn and contribute to the common goal. Ukrainian experience has

shown how fast they get self-organized and self-mobilised in case of emergency, and how effective and valuable their assistance is during the first few hours after the disaster. This valuable resource cannot be underestimated.

The result of the study shows that the politics of societal resilience require a new level of understanding. We live in an unstable and complex world where a person cannot feel secure, relying exclusively on himself and governmental authorities. Collective actions and responses are necessary when facing risks, which are compound, interconnected and cascading. Ukrainian society was the first of the former USSR countries to have successfully shown its resistance and dedication based on national ideas. The first few weeks after the full-scale invasion of Russia in Ukraine in February 2022 have changed the world's perception of Ukraine from a hopeless victim to a strong resilient actor in the military conflict. Despite of numerous losses that Ukraine is having now, it has gained a huge amount of experience, which is valuable for most of the countries of the rest of the world, considering the existing complicated geopolitical tensions.

The civilian population of Ukraine, which suffered from the Russian aggression was the focus of the study. Based on the results of the interviews and according to the objectives of the thesis, Ukrainian society's resilience in the time dimension before the full-scale invasion of Russia in Ukraine on the 24th of February 2022 and after it has been analysed. The results have shown Ukrainians as a society with a high rate of innate resilience, which was a decisive factor in keeping the national resistance on a high level during the first few weeks after the full-scale invasion. Special attention was given to the factors which weakened resilience - lack of transparency and misinformation from the governmental authorities. Together with the high public trust it hampered the preparedness of the communities for the military aggression and resulted in enormous losses. On the other hand, the initial low preparedness of the civilian communities served as an enhancing factor in strengthening resilience, when the communities showed their ability to self-organise and self-mobilize in the situation of emergency. Local Territorial Defence Forces as well as volunteering groups showed their efficiency and professionalism in tackling various sorts of emergencies with their resources.

Through the lens of the risk resilience framework absorptive, adaptive and transformative components of the Ukrainian resilience system have been identified stemming from events from its history and the implementation of strengthening resilience measures starting from the first invasion of Russia in Ukraine in 2014.

Based on the Breach of the Nova Kakhovka Dam case study the fluctuation in the Ukrainian resilience system has been detected from 0 to level 1 with the help of the rapid evacuation assistance of the local resources and later from level 1 to level 2 after the involvement of governmental and international assistance.

More consequences of the governmental authority's lack of preparedness have been shown by the interview data analysis and the case study about the unlawful deportation of Ukrainian children from the eastern territories of Ukraine. In addition to this case study the problem of the governmental authorities' misinformation was mentioned and its negative impact as follows from the interview analysis.

In the result of the study the early preparedness measures, provided by authorities, their adequate communication and the involvement of local resources in the form of communities, are defined as the most successful in strengthening societal resilience. As the additional measures, which bring long-lasting positive effects on societal resilience, the national factor in the form of national language, faith and armed forces are suggested. The Ukrainian example has shown that we have to take a broader outlook on the system of societal resilience and make sure that we do not miss every single chance to make it stronger. The risk resilience framework is very suggestive in this aspect. Before we had been concentrating mostly on risks we wanted to prevent and consequences we wanted to mitigate, but now, in times of geopolitical tensions, we have to admit that the risk prevention policy is not successful any more, due to the complexity and interdependency of risks the society is facing. Such risks cannot be prevented, but societies can grow their resilience to them by using positive examples of other countries, like Ukraine. Strengthening resilience is a long process, but it can bring fruitful results in the form of a transformed society, which takes the shortest time possible to handle the disruption, adapt to the new reality and continue functioning at an even higher level of resilience.

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