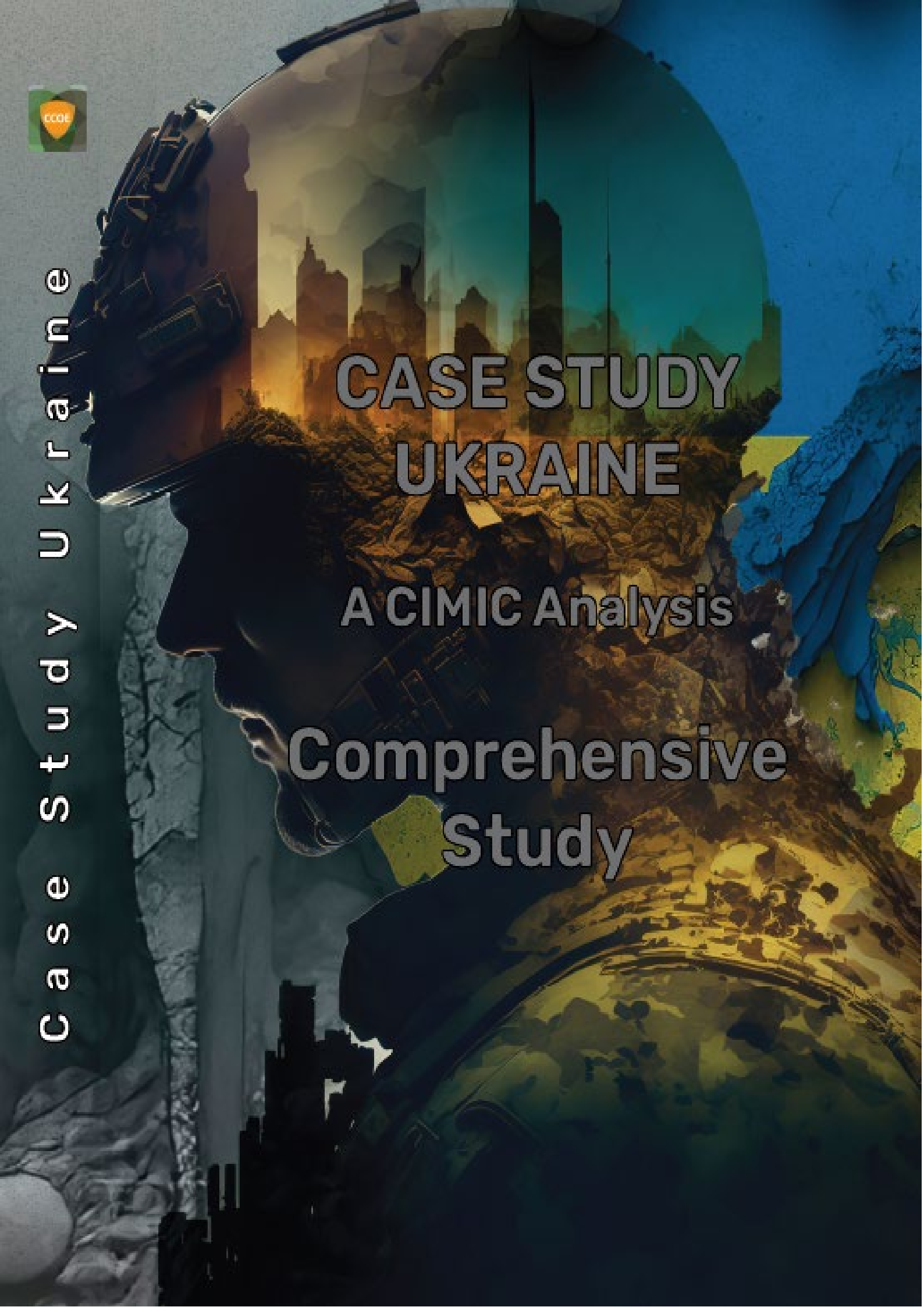
Case Study Ukraine
CASE STUDY
UKRAINE
A CIMIC Analysis
Comprehensive
Study

Impressum

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“Resilience is not strictly military or civilian but ‘a whole-of-government and whole-of-society responsibility.”

Mark Rutte

NATO Secretary General

12. November 2024

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Abstract

The Russian Federation's full-scale invasion of Ukraine since February 2022 has significantly altered Europe's strategic landscape and redefined NATO's approach to CIMIC. No longer a secondary support function, CIMIC has become a vital element for deterrence, crisis management, and national defence. Meanwhile, most Allies have revised or developed new national defence plans, often aligning with NATO's collective deterrence and defence strategies. These plans specify roles and authorities during crises and war (e.g., Germany's OPLAN DEU). The conflict shows that integrated CIMIC is vital for societal resilience, operational agility, and political credibility in prolonged conflicts. Since the 2016 NATO Warsaw Summit, resilience—society's ability to withstand and recover from shocks—has strengthened ties between civil society and armed forces. Strong Resilience through Civil Preparedness (RtCP) is key to collective security and bolsters NATO's deterrence and defence.

This case study explores Ukraine's evolution of CIMIC from support to a strategic tool vital for resilience, integrating civil, social, economic, and informational sectors into military strategies. Ukraine's adoption of NATO's Seven Baseline Requirements (BLR) and, in addition, the Financial, Social, and Information Resilience signals a shift that NATO may formalise, aligning with updates to the Resilience Guidelines and summit goals on deterrence and resilience. CIMIC now involves military, civil authorities, the private sector, and citizens, boosting situational awareness, governance, and public trust during conflicts. Ukraine illustrates that CIMIC is an active resource for resistance, recovery, and reconstruction, embedding resilience into operational procedures. This provides insights for NATO to embed CIMIC in deterrence and defence efforts, underpinned by resilience and civil preparedness, supporting crisis response and hybrid warfare readiness, while aligning strategic goals with local actions and informing Article 3 and NATO's Resilience Pledge.

As previously outlined, the findings confirm that CIMIC is a vital component of resilience planning, with Ukraine's experience highlighting its strategic importance for force design, operational planning, and resource allocation. Strengthening CIMIC across governance and operations by integrating civil engagement, infrastructure security, and information sharing is essential to NATO's defence and resilience. Formalising CIMIC within operational cycles, force development, and private-sector partnerships will enhance crisis response speed and coherence, placing CIMIC at the core of NATO's strategic resilience.

Today's rapidly changing security landscape demands a strong CIMIC that links military operations with societal stability, allowing NATO to effectively tackle hybrid threats across all domains. When properly funded and integrated into strategic planning, CIMIC evolves from just a policy component to a vital strategic tool, enhancing resilience both militarily and socially. The Ukraine conflict underscores CIMIC's essential role in strengthening national capabilities, deploying resilience strategies, and maintaining NATO's strategic edge. To stay ahead, NATO decision-makers should view CIMIC as a joint function to enhance societal resilience and democratic legitimacy during prolonged crises. Investing selectively in CIMIC personnel, analytical abilities, and institutional partnerships can bolster civil engagement, safeguard critical infrastructure, and facilitate transparent information exchange. This approach enables NATO to better tackle challenges, adapt to modern warfare, and achieve long-term stability.

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Document Layout Disclaimer:

In accordance with NATO AAP-32, the list of used definitions and abbreviations is shown in the back matter starting on page 80.

To enhance transparency, accessibility, and ease of reference, this document uses footnotes rather than endnotes. Footnotes enable readers to promptly access source information without leaving the main text, thereby maintaining continuity and clarity when examining referenced materials. The Harvard citation style is used in the footnotes, providing succinct author-date references. All detailed bibliographic information is provided comprehensively in the Back matter section at the conclusion of the document.

Terminology note:

For this study, the term Armed Forces of Ukraine (AFU) is used as a broad designation encompassing all branches of Ukraine's armed forces, including the Territorial Defence Forces (TDF). When specifically referring to the TDF, it pertains to issues that directly concern or are exclusive to the Territorial Defence Forces. This methodology is employed solely to improve readability and does not imply any conceptual or institutional separation of the TDF from the AFU as a whole.

Executive Summary

This summary highlights key findings from a study on CIMIC in Ukraine, summarising Lessons Learned and Best Practices from its wartime use as a vital tool for maintaining operations, legitimacy, and flexibility under pressure. It offers practical insights for NATO decision-makers at all levels on integrating CIMIC into deterrence and defence.

The Ukraine conflict demonstrates that modern defence depends on integrating civilian and military resources, not just combat capabilities. CIMIC helped Ukraine coordinate military operations with societal needs, maintaining governance, communication, energy, logistics, and population management during disruptions. Embedding CIMIC within national command structures improved crisis anticipation, infrastructure protection, and morale during ongoing hostilities. Ukraine's approach shows that CIMIC extends beyond liaison and coordination to ensure operational continuity and national cohesion, enabling government, armed forces, local authorities, and the private sector to function as an interconnected system. Through proactive civil environment assessments and decentralised decision-making, Ukraine's CIMIC network has protected critical services, mobilised communities, and involved volunteers and businesses in strategic defence initiatives. It has also supported rapid reconstruction efforts, enhancing resilience and deterrence.

Operationally, CIMIC contributed to protecting essential state functions, securing energy and communication infrastructure, and coordinating large-scale humanitarian efforts. Its partnership with the private sector has been vital, mobilising logistical networks, digital infrastructure, and financial mechanisms to boost national resilience. Additionally, CIMIC has played a key role in maintaining societal cohesion and combating disinformation, thereby strengthening Ukraine's political stability and international standing. CIMIC has effectively linked immediate crisis management with post-conflict recovery, emphasising the importance of civil-military coordination beyond wartime.

For NATO, this means CIMIC must become a lasting capability embedded into command structures, policy frameworks, and planning processes. This includes establishing formal partnerships with key industries, creating legal frameworks for resource sharing, and integrating CIMIC personnel at various levels of staff. Training should focus on large-scale conflict, hybrid warfare, and interagency coordination, including scenario-based exercises on infrastructure protection, civil data management, and psychological operations.

CIMIC is more than merely supportive; it is a joint function[1] that enhances operational effectiveness. The Ukrainian experience shows that success in modern warfare requires combining military precision with civil resilience. NATO's advantage depends on recognising CIMIC as a tool that enhances national will, societal function, and Alliance cohesion. Investing now is essential for the Alliance's capacity to withstand, respond to, and succeed in future conflicts.

[1] Joint Function is the framework that integrates manoeuvre, fires, information, and CIMIC, guided and managed by command, control, intelligence, and supported by sustainment and force protection. (AJP-3)

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Chapter 1 – Introduction

1.1 The Geopolitical Imperative: Article 3, Resilience, Deterrence and Defence

NATO's defence foundation is based on Article 3 of the Washington Treaty, which obligates the NATO member states to maintain and develop their capacity to resist armed attacks through ongoing self-help and mutual support. This emphasises the vital importance of civil preparedness and national resilience. Resilience, defined as the ability to prepare for, withstand, respond to, and swiftly recover from shocks and disruptions, is closely linked to deterrence and defence. Security relies on a layered approach that includes military, military-civilian, and civilian elements of resilience.

The 2022 invasion by the Russian Federation of Ukraine highlights NATO's need for comprehensive response strategies to manage shocks, hybrid threats, and attacks. It shows the importance of understanding how military operations impact the Civil Environment (CivEnv) and vice versa, as well as the role of civil factors in military readiness and Alliance resilience. NATO's defence relies not only on military strength but also on the resilience and political will of its member societies to endure sacrifices.[2]

Figure 1 below summarises the most significant civil-military consequences of the now-nearly four-year invasion, in chronological order.

Figure 1 - CIMIC Key Triggers

[2] Christie, E., & Berzina, K. (2022 July 20).

Therefore, CIMIC should be viewed not merely as an auxiliary support function but as a strategic instrument that directly contributes to the operationalising of Article 3 resilience, thereby becoming an integral component of the Alliance's deterrence posture.

NATO Allied Joint Publication AJP-3.19 offers a foundational doctrinal framework for engaging with the non-military sphere. CIMIC is characterised as a military joint function focused on integrating the understanding of the civil factors into the operating environment, thereby supporting, enabling, and executing Civil-Military Interaction (CMI) to achieve mission objectives. The document links policy with CIMIC implementation, emphasising the role of this function in NATO's primary operational activities. Regular assessment of the CivEnv is essential for gaining a comprehensive understanding of the operating environment, which is vital for successful mission execution. This evaluation should prioritise protecting critical infrastructure to ensure the continuity of government functions and daily life. Additionally, the CivEnv assessment is crucial for the government to oversee displaced populations, including refugees and internally displaced persons (IDPs), and to facilitate effective evacuation planning.

The Comprehensive Approach involves the coordinated integration of military and non-military actions to achieve quick, relevant results. AJP-3.19 emphasises the importance of synchronising with non-military actors (NMAs), whose capabilities are usually organised within administrative echelons that control the respective geographical area. Successful implementation requires active engagement, liaison, and collaboration beyond mere outreach. The CMI framework comprises four stages: outreach, engagement, liaison, and consultation[3].
The reliance on these interaction mechanisms underscores the need for military staff to operate effectively across the public and private sectors. The institutionalisation of these relationships, spanning political, strategic, operational, and tactical levels, is vital for making coordinated decisions, planning, and directing resources during a crisis.[4]

Today, CIMIC is a vital enabler for high-intensity operations and strategic deterrence. According to AJP-3.19, CIMIC principles apply across NATO's core tasks and campaigns. In large-scale conflicts, military capabilities alone cannot meet all demands; effective collaboration with civilian actors is crucial for deterrence and operations. CIMIC must evolve from an auxiliary support role to a central function. NATO’s deterrence strategy depends on maintaining civilian capabilities as outlined in the Baseline Requirements (BLR), with CIMIC managing civil factors to sustain national resilience, especially against hybrid threats that threaten societal cohesion. To implement the Comprehensive Approach, doctrinal focus shifts towards establishing rapid communication mechanisms and legal frameworks for resource prioritisation, ensuring integration across society to operate at the speed of relevance.

[3] CMI includes outreach and engagement with non-military actors, civil-military liaison for contact and coordination, and consultation and collaboration to complement capabilities and synchronise activities. (AJP 3.19 Ed. B V1)
[4] CCOE. (2025, March).

1.2 The Evolving Resilience Paradigm and the 7 Baseline Requirements (BLR)

The framework for national resilience within NATO is defined by the Seven Baseline Requirements (7 BLR), agreed upon at the 2016 Warsaw Summit. The Ukraine conflict has questioned these requirements and revealed their critical yet limited scope in a comprehensive conflict involving systematic countervalue targeting. The 7 BLR serve as comprehensive national resilience targets that enable Allied nations to evaluate and enhance their level of preparedness for various crises and emergencies. These goals are structured around three principal functions

Continuity of Government – Essential Services to the Population – Civil support to the Military

that must be sustained and maintained even under the most severe and demanding conditions. All of these core functions will be examined more closely in the following chapter. Much more important is that these core functions are deeply interconnected; a disruption or failure in one area, such as energy supply, can trigger a cascade effect, leading to significant challenges in other critical areas like managing mass casualties, maintaining transportation logistics, and ensuring overall societal stability. This interconnectedness underscores the importance of a holistic, resilient approach to national preparedness, in which safeguarding one function supports the stability of others, thereby enhancing the nation's overall resilience and serving as a deterrent.[5]

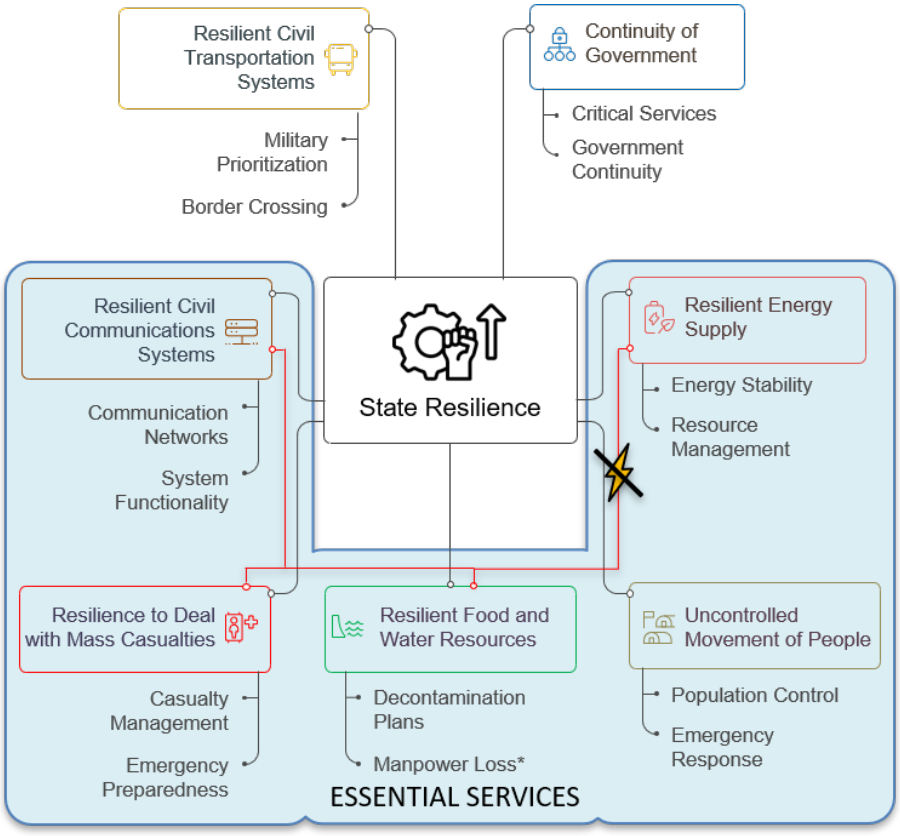

Figure 2 - 7 BLR

[5] Manpower loss refers to any reduction in the availability of SMEs to operate, maintain, repair and manage food and water supply systems at minimum service levels.

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Chapter 2[6] – Challenges to Resilience in High-Intensity Conflict

The Ukraine conflict demonstrates Russia's extensive use of a countervalue strategy, deliberately attacking civilian infrastructure such as cities and utilities to reduce public support and weaken societal cohesion. Rather than targeting military forces (counterforce targeting), Russia concentrates on non-military assets like hospitals and power grids to challenge government legitimacy. This hybrid warfare combines military actions with non-military tactics, such as disinformation campaigns, cyberattacks, and economic pressure, aiming to destabilise and blur the line between war and peace. Evidence of Russian influence operations across Europe, targeting infrastructure and institutions, highlights this persistent threat. The CivEnv assessment should examine how these attacks affect critical infrastructure and influence military operations, and explore potential mitigation strategies.

Historical aerial campaigns demonstrate that coercion increases costs and risks for civilians and seldom breaks the will of a nation's leaders. Nevertheless, adversaries regard societal resilience, the ability to withstand hardship and sustain morale, as a key vulnerability. The main weakness lies not only in physical infrastructure failures but also in the loss of public trust and morale, which CIMIC and others' efforts should address through effective communication and support for local authorities.

The Ukrainian Adaptation: Expansion of the Resilience Framework

In direct response to the requirements of large-scale combat against a peer adversary employing countervalue methods, Ukraine adopted NATO's 7 BLR in its National Resilience Concept[7] and formally expanded the framework. To the original 7 BLR, Ukraine added two essential areas of focus: Social Resilience (including Information Resilience) and Financial and Economic Resilience (as a kind of alignment with the EU Directive 2022/2557). This expansion offers a vital policy lesson derived from the conflict.

Social Resilience including Psychological Defence:

1. **Social Resilience:** The widespread use of information warfare highlights the need for formal mechanisms to boost societal resilience, including psychological resilience. NATO stresses countering disinformation by strengthening credibility and providing accurate, timely information to combat threats. Internal policies suggest resilience goals could be improved by explicitly integrating societal and cognitive factors alongside the Seven Baseline Requirements to prevent public demoralisation and sustain support during disruptions, like infrastructure failures.[8]
2. **Financial and Economic Resilience:** As modern societies are deeply interconnected in economic and financial areas, maintaining the stability of financial infrastructure and essential economic functions is crucial when facing hybrid attacks. Payment systems are a core component of financial and economic resilience because they enable government

[6] This report updates the CCOE case study 'Ukraine' (2024), drawing from & adapting content from that publication.
[7] Published September 2021
[8] Ukrinform. (2021, September 28).

services, commerce, salaries, and emergency support to continue even under disruption. Protecting these systems against economic coercion and cyber warfare targeting banking and financial infrastructure is therefore fundamental to a state's ability to sustain itself during extended conflicts.[9]

Human Security[10] as a Cross-Cutting Resilience Lens:

1. Ukraine's resilience in high-intensity conflict relies not only on infrastructure and service continuity but also on societal endurance, trust, and legitimacy. Threats and harms to civilians that induce fear, humiliation, displacement, or social fragmentation are resilience stressors with direct operational impacts.

2. NATO defines Human Security as an approach integrating protection priorities such as safeguarding civilians, addressing conflict-related sexual violence (CRSV), combatting human trafficking, protecting children in conflicts, and preserving cultural heritage when appropriate. These themes are considered cross-cutting factors that affect freedom of manoeuvre, sustainment, and societal cohesion, rather than isolated social topics separate from the Seven Baseline Requirements.

3. This BLR-based analysis pinpoints human security indicators, including detention abuse, displacement risks, and gender-based violence enabled by technology, serving as early warnings. These signals can trigger secondary effects, such as population displacement and morale decline, aiding CIMIC planning. The method offers a comprehensive assessment of systemic resilience across governance, movement, health, and information sectors.

The analysis highlights that resilience planning must go beyond mere compliance with individual BLRs, given their high interconnectedness, as shown in Figure 2, to effectively model systemic risk across the entire framework. This ensures resource allocation not only for repairs but also to prevent chain reactions across multiple domains.

At the 2016 Warsaw summit, NATO members committed to strengthening resilience by maintaining critical civilian and military capabilities and by promoting cooperation between the government and private sectors. In Ukraine, the *Law on National Resistance*, signed by President Zelenskyy on 29 July 2021, highlights resilience. The Territorial Defence Forces (TDF) serve as a crucial element, connecting civil and military sectors within the operational environment. The TDF, comprising full-time personnel across districts, includes military, civil-military, and civil units. Legislation established Voluntary Formations of Territorial Communities (VFTC), allowing Ukrainian nationals to join the TDF and resistance movements, thereby enhancing national stability and defence preparedness.

The following paragraphs, therefore, describe the situation regarding BLRs in Ukraine as outlined above.

[9] For Details, see Chapter 3.
[10] NATO (2024). *Human security.*

2.1 Continuity of government and critical government services

Situation

After the start of the Russian Federation's war against Ukraine, President Zelenskyy, in a video on social media, officially declared a state of martial law on all Ukrainian territory.[11] This provision has been continuously extended since the start of Russia's full-scale invasion.[12] The Law of Ukraine on the Legal Regime of Martial Law entered into force on 1 January 2022 following the last amendment. Article 3 states that, in the conditions of martial law, the President of Ukraine and the Verkhovna Rada (Parliament) of Ukraine act exclusively on the basis of this Article, within the limits of their powers and in the manner prescribed by the Constitution and laws of Ukraine.[13] The same applies to the Cabinet of Ministers of Ukraine, other state authorities, military command, military administrations, the Verkhovna Rada of the Autonomous Republic of Crimea, the Council of Ministers of the Autonomous Republic of Crimea, and local self-government bodies: they shall exercise the powers granted to them by the Constitution and other laws of Ukraine.[14]

To protect its national sovereignty and ensure the continuity of government, in 2022, Ukraine defined an action plan for the physical protection of its key officials and for delineating a clear line of presidential succession. Although the details of these plans are unknown and confidential, their existence has been disclosed as part of national resistance. In case of a full occupation, pre-emptively chosen Ukrainian leaders would be able to gain a more rapid acceptance than if the Kremlin attempted to impose a pro-Russian regime in Ukraine.[15] Furthermore, an official plan for presidential succession would allow the Ukrainian resistance to maintain public support and credibility.[16] This not only has a positive effect on the internal population but also has allowed for widespread support for Western governments and a pledge to stand with Ukraine.[17]

After the declaration of martial law, President Zelenskyy signalled determination by remaining in Kyiv and establishing a Supreme Command to coordinate national defence and continuity of government. Within this framework, military commanders direct urban defence, while mayors and local leaders mobilise citizens and sustain essential services when cities must operate under extreme pressure.[18] In affected areas, martial law shifted Civil and Military-Civil Administrations into Military Administrations, replacing local authorities to manage the defence and protection of critical infrastructure and civilians. [19] Wartime efforts face risks, such as high-profile corruption scandals, that erode trust and hinder mobilisation. Notable cases include

[11] Harding, D. (2022, February 24).
[12] Dmytriieva, D. (2025, July 25).
[13] *Law No 1647-III on Legal Regime of the Martial Law of Ukraine* (2000) (English), Section I, Article 3.
[14] *Law No 1647-III on Legal Regime of the Martial Law of Ukraine* (2000) (English), Section III, Article 8.
[15] This was already observed during the 2014 Russian operation in eastern Ukraine, where political control was maintained through rigged referendums and the appointment of individuals supporting pro-Russian interests into local governance structures.
[16] Kepe, M., & Binnendijk, A. (2022, March 17).
[17] Trebesch, C. (2023, February 21).
[18] Che-Chuan, L. (2022, September 14).
[19] CIVIC, (2023, October). p. 13.

defence procurement controversies that led to leadership resignations, fraud investigations, and overpricing. Bribery schemes in recruitment and the issuance of medical exemptions, leading to dismissals and investigations, also damage confidence. The detention of Ukraine's Supreme Court head over bribery raised concerns about corruption in the justice sector, affecting legitimacy during wartime. These incidents show that maintaining government and critical services requires resilient structures, transparent procurement, accountability, and anti-corruption efforts to sustain public trust and national resilience.[20]

Assessment

The Ukrainian government has effectively thwarted Russian political aims while preserving the country's independence. Maintaining government functions and services after the initial shock was crucial, and Ukraine has succeeded, with institutions at all levels continuing to operate and support the population. This greatly enhanced the possibility of society and the Armed Forces of Ukraine (AFU) to pose a solid resistance against the invading forces. The Ukrainian financial system continued operating, delivering salaries and pensions, and the postal service remained operational in vast parts of the nation despite attacks. Furthermore, the Ukrainian government has undertaken financial support measures for the population that, because of the war, remained unemployed and displaced.[21]

Providing active support to the population and maintaining key state functions operational are extremely important for countering aggression and maintaining the support of civil organisations. This also serves as an enabler for the armed forces' efforts to endure the ongoing massive attacks on logistics and infrastructure. The ability of a nation's armed forces to withstand an invasion requires the support and cohesion of the civil society in a whole-of-government and society approach. Ukraine has understood the importance of this point. It has actively taken steps to avoid a situation similar to what happened in 2014, when institutions resigned in front of the Russian Federation's hybrid aggression.[22] The government's stability depends on public trust and legitimacy. Russian aggressions (coercion, detention, torture, and sexual violence) directed at Ukrainian civilians in occupied regions undermine trust and legitimacy. Residents also face restrictions on services and legal rights.[23] Beyond immediate harm, such practices create strategic effects: fear, social fragmentation, suppression of civic participation, and diminished institutional confidence. [24]

The situation in Ukraine underscores the importance of a swift and effective response to threats against civilians. Therefore, CIMIC planning should actively demonstrate to vulnerable populations that the armed forces are alert to Russian aggression, helping to build trust. Recommended actions include transparent incident reporting and proactive support or referral for survivors, especially during detainee releases, cases of missing persons, or administrative changes that pose significant risks.

[20] REUTERS, Polityuk P. (2025, December 12)
[21] Reznikova, N., & Panchenko, V. (2022, December). p. 19.
[22] Magnay, L. S.-Spark. D., & Butenko, V. (2014, January 28).
[23] OHCHR (2025a). *Report on the Human Rights Situation in Ukraine*
[24] OSCE (2024). *Sixth Interim Report on Violations of IHL and IHRL in Ukraine*

Conclusion

There are several lessons that NATO could embrace to enhance member states' resilience. First, establish a clear, transparent policy for the continuity of government that can be promptly activated in the event of an emergency. Secondly, NATO countries should undertake the necessary measures to keep services to the population active and operational – synchronised with defence efforts, pre-planned, and frequently exercised with all relevant stakeholders in a comprehensive defence/security approach (such as territorial entities and the state, provincial and regional authorities and agencies). This is important not only in extreme cases, such as an invasion, when armed forces need support in resisting an attack, but also in more ambiguous, hybrid aggressions that might undermine a state's activities. Maintaining the operability of a government is the most crucial step for enhancing the resilience of a state and, consequently, of the whole Alliance. Thus, NATO should undertake initiatives to establish tangible enabling capabilities (materiel and logistical support), coordination, and political tools within the NATO-level structure that could be provided to its members in emergencies.

2.2 Resilient Energy Supplies

2.2.1 Power Generation and Grid Systems

Situation

As of 2024, Ukraine's energy is mainly generated from gas and nuclear power, followed by oil and coal.[25] Coal had traditionally been the primary fuel, but in 2018 it accounted for 30% of the country's total energy sources, and by 2024 it accounted for 19%. In fact, the coal industry has been disrupted by the conflict because the heart of the heavy industry and coal mining lies in the Donbas and the eastern part of Ukraine, which is either under Russian Federation occupation or under fire.[26] The primary energy sources are natural gas (33%), nuclear power (22%), and oil (19%), followed by 10% from renewable sources.[27] Most of the gas and oil is imported, but the energy policy has already prioritised diversifying the energy supply since 2015.[28]

Until the 2010s, all of Ukraine's nuclear fuel came from the Russian Federation, but now it needs to be imported from other sources. It is worth noting that the largest nuclear power plant in Europe, the Zaporizhzhia Nuclear Power Plant (ZNPP), is located in Ukraine and came under heavy attacks in the first weeks of the invasion and is currently under occupation.[29]

In 2020, Ukraine transited more natural gas than any other nation in the world. Until the end of 2024, it remained the main transit route for Russian Federation natural gas sold to Europe, earning Ukraine about $3 billion a year in transit fees, making it the nation's most lucrative export service. Over 40 billion cubic metres of Russian Federation gas flowed through Ukraine

[25] Ritchie, H., Roser, M., & Rosado, P. (2022, October 27).
[26] Bloomberg Global Coal Countdown. (2025, February).
[27] Ritchie, H., Roser, M., & Rosado, P. (2022, October 27).
[28] Iryna, S. (2025, February 25).
[29] Dolzikova, D. (2025, September 4).

in 2021, about a third of Russia's exports to other European countries. However, on 1 January 2025, President Zelenskyy refused to renew the five-year-long gas transit deal, which had been signed before Russia's full-scale invasion of Ukraine.[30]

On the other hand, the Russian Federation has been continuously attacking the Ukrainian energy infrastructure. Since 2022, Russia has expanded its attacks each autumn into a sustained, large-scale, long-range strike campaign against Ukraine's power grid, with effects that peak during the winter heating season when electricity demand rises. The strikes have produced repeated, localised shutdowns and, at times, wider outages that interrupt critical services, including heating, water supply, sanitation, healthcare delivery, and economic activity. The campaign is conducted in waves and employs mixed strike systems, compelling Ukraine to maintain a high-tempo air-defence posture and to expend interceptors while operating sensors and crews under continuous strain. As air-defence stocks and readiness are pressured, coverage gaps can emerge, increasing the likelihood that subsequent strike waves penetrate and inflict additional damage. The June 2023 destruction of the Kakhovka Hydroelectric Power Plant (KHPP) dam in Kherson Oblast, widely assessed as attributable to Russian forces, demonstrates the energy–water nexus effects of such actions, causing major flooding in the Dnipro River delta and severe, long-term damage to urban centres and the environment along the river shorelines of the Oblast.[31]

International support provided Ukraine with tools that proved critical to maintain the energy supply online. International aid has been provided through the European Union (EU) Ukraine Energy Support Fund and the US Agency for International Development (USAID) Energy Security Project. With a total commitment of €6.6 billion at the end of 2023, over 20,000 generators, 1,200 transformers, and 6,700 solar panels have been provided for vital infrastructure.[32]

Assessment

The ongoing shortage of coal for Ukraine's coal-fired power stations, driven by the War in Donbas and the shutdown of one of the six reactors at the ZNPP, has resulted in nationwide rolling blackouts. This situation has compelled Ukraine to seek alternative energy sources and accelerate diversification efforts. The 2024 Ukraine Resilience Plan emphasises expanding nuclear generation as a key component of the country's energy security strategy. Despite significant risks, three Ukrainian nuclear plants remain operational. Additionally, Kyiv's long-term sustainability goals include prioritising green hydrogen and biomethane, as well as expanding solar and wind energy infrastructure.[33]

The destruction of the KHPP resulted in the loss of an important energy source and, in turn, triggered a water supply crisis with serious consequences for the populations of the Kherson Oblast and Crimea. It also disrupted the main water supply for the agricultural sector in the area, which, as shown during the grain crisis, is vital to several countries worldwide. Experts

[30] Santora, M., Higgins, A. H. and S. R., & Reed, S. (2025, January 1).
[31] BBC. (2023, June 8).
[32] ENSEC COE. (2025, September 2). p. 4.
[33] *Ibid*., p. 5.

later estimated that the damage to the KHPP amounted to approximately $14 billion, including the destruction of key infrastructure and the long-term environmental impact.[34]

Although the Russian Federation has continuously attacked Ukrainian energy infrastructure, the attacks have not been as effective as planned, as Ukraine has proven able to withstand their effects and to repair damaged structures quickly, bringing them back to operability in a short time. For instance, one year into the war, Energy Minister German Galushchenko reported that, thanks to the combined work of air defence systems and technical measures, the energy system's integrity had been preserved and the energy supply restored.[35]

As a result of the war, the AFU has experienced a rise in energy demand, making diesel and portable generators critical assets. Although these generators are subject to restricted deployment for security reasons, portable energy storage systems are used closer to the front and support trench-based electrical equipment.[36]

The Russian Federation's occupation of the ZNPP poses a unique problem, as a military presence of both personnel and equipment has been recorded, with attacks being staged against Ukrainian cities across the Dnipro River. Ukrainian forces are therefore unable to carry out significant counterattacks, as this would risk damaging the plant and potentially causing a radiological or nuclear accident. On the other hand, the Kremlin will likely soon expect the ZNPP to return to operation, posing the threat of imminent plant degradation, as Russia is unable to find qualified personnel for the necessary operations and maintenance. This would also pose significant difficulties regarding the lines of conflict and the Russian Federation's military presence in the ZNPP in the event of a ceasefire or peace agreement.[37]

Moreover, the primary concern regarding the occupation of the ZNPP was the changing energy production patterns, as the plant alone accounted for 23% of Ukraine's electricity output in 2021. In fact, in the first months of the war, energy consumption had already dropped by around 30% in comparison to the previous year.[38] However, while energy security was the primary concern for the international community, the focus has now shifted to nuclear safety at the ZNPP. This is because, to withstand recurring power outages, the plant relies on diesel generators for cooling, risking a fuel shortage that could cause overheating.[39] Moreover, with a splitting of the ZNPP-generated electricity proposed in US President Donald Trump’s 28-point peace proposal, the plant’s strategic value is further highlighted.[40]

Conclusion

Since the military depends on civilian energy networks, ensuring the security of critical energy infrastructures and supply chains is important. Ukraine understood this well, which is also why Kyiv has put effort into maintaining energy grids online, not only to ensure the resilience of the

[34] Pysarenko, O. (2025, June 6).
[35] Harmash, O. (2023, February 10).
[36] ENSEC COE. (2025, September 2). pp. 4-5.
[37] Dolzikova, D. (2025, September 4).
[38] Prokip, A. (2022, September 19).
[39] Gatopoulos, D., & Arhirova, H. (2025, October 1).
[40] Culverwell, D. (2025, November 26).

society but also to better support the armed forces in their resistance against the Russian Federation Armed Forces.

The destruction of the KHPP could significantly impact the military operations of both Ukraine and the Russian Federation. Consequently, this shows that armed forces must consider the possibility that civilian infrastructure might, depending on the situation, be an advantage or disadvantage to military operations and combat efficiency. On the other hand, given both its generating capacity and symbolic value as a national asset, the ZNPP remains a central pillar to Ukraine's energy supply. The plant is therefore central to Ukraine's capacity to withstand prolonged disruption and a key geopolitical lever in regional security dynamics.

Ukraine has undertaken several measures to diversify and secure its energy sources, elements that are vital for withstanding aggression. Although NATO is not an energy agency and primary responsibility still rests with member states, the Alliance can coordinate joint efforts to improve resilience and interoperability of allied energy infrastructure through standards, planning, information-sharing, and exercises. This approach is directly based on lessons from Russia's sustained attacks on Ukraine's power system, which highlight the operational value of redundancy, rapid restoration, and protection of critical nodes. Such efforts should be pursued alongside EU initiatives on energy security, solidarity, grid connectivity, and critical infrastructure and cybersecurity measures. Member states should bolster physical and cyber protection of grids while focusing on distributed and modular solutions (e.g., microgrids and mobile generation) and reliable, shorter supply chains for critical spares and repair capacity. At the same time, Allies should formalise arrangements for quick cross-border rerouting and mutual support to divert energy and maintain essential services during emergencies.

2.2.2 Heating Capabilities

Situation

In the context of the Ukraine conflict, ensuring reliable heating infrastructure is not simply a matter of comfort; it is a fundamental aspect of civilian resilience. Given Ukraine's severe continental climate, where many regions experience long winters with temperatures below –10°C, maintaining sufficient indoor heating is crucial for preventing humanitarian crises and uncontrolled population movements (see next chapter). Heating resilience thus serves as a vital pillar of Ukraine's overall energy security strategy and a key factor in societal stability during wartime. Ukraine's geographic location exposes it to harsh winter conditions across most oblasts, and it relies heavily on district heating systems powered by natural gas, coal, or electricity. Urban and semi-urban populations depend on these centralised networks, while rural communities often rely on solid fuels or local boilers. A failure in any of these systems during freezing periods can quickly make living conditions unbearable, threatening vulnerable populations and causing internal displacement.

The destruction of electricity and gas networks has therefore had disproportionate humanitarian effects. During the winter of 2022/23, following multiple waves of Russian Federation missile strikes, around 50% of the country's electricity infrastructure was

temporarily damaged, forcing millions to rely on improvised or alternative heating methods.[41]

Assessment

Ukraine's approach to maintaining heating under wartime stress has evolved toward decentralisation, fuel diversification, and rapid repair capabilities, all supported by international donors. Key resilience measures include decentralised generation and redundancy, with municipalities installing smaller modular boilers and mobile container units that can be deployed when centralised systems are disabled. Biomass and local solid-fuel boilers have become increasingly common, especially in western regions.[42]

Additionally, Ukraine has prioritised fuel security and stockpiling through underground gas storage, domestic coal extraction, and the use of liquefied petroleum gas. Biomass fuels and pelletised agricultural residues are also being mobilised to reduce dependency on imported fuels. Infrastructure protection involves hardening heating networks with physical measures, improved insulation, and backup electricity generation. Finally, municipalities have invested in rapid repair and temporary solutions, including modular mobile boilers and district-heating loops that can be restored quickly.[43]

Case Study I: Kyiv – Adaptive Urban Heating Networks

The capital's heating network, operated by Kyivteploenergo, serves over 3 million residents and exemplifies adaptive resilience. Following the 2022 air campaigns, 16 major heat-supply nodes were damaged. To prevent systemic collapse, city engineers implemented a "cellular" distribution model, isolating network segments so that localised failures would not cascade. The municipality also deployed 20 mobile boiler houses and expanded connections to decentralised renewable sources (including biogas and rooftop solar for auxiliary heating). Kyiv's strategy included large-scale public heating shelters, equipped with emergency power and water supply, allowing citizens to withstand temporary outages. These facilities became focal points for community support and crisis communication, demonstrating that urban resilience depends as much on social organisation as on technical redundancy.[44]

Case Study II: Kharkiv – Emergency Heat Restoration under Fire

Kharkiv, situated only 40 kilometres from the Russian Federation border, has been one of the hardest-hit cities. Repeated strikes in early 2023 damaged over 50 boiler houses and left 700,000 residents temporarily without heating. Within 10 days, local utility engineers, supported by volunteers and emergency units, reconnected more than 80% of the affected households.

This swift recovery was achieved through pre-positioned modular equipment and international support from the EU Energy Support Fund and USAID, which supplied over 20,000 generators and 6,700 solar panels. The Kharkiv example demonstrates that resilience is possible even

[41] Rimutis, S. (2024 April).
[42] IEA. (2025 October 22).
[43] Rimutis, S. (2024 April).
[44] UNOPS. (2023 July 03).

amidst ongoing shelling, provided there is pre-crisis planning, spare parts redundancy, and decentralised maintenance capacity. [45]

Conclusion

Heating resilience directly impacts population stability. When households can heat their homes, even slightly, they are more likely to stay put, supporting community continuity and easing humanitarian demands. Conversely, widespread heat loss can lead to displacement as civilians seek safety and warmth elsewhere. From a policy perspective, reliable heating is both a humanitarian and strategic goal. It boosts morale, prevents secondary crises, and helps urban centres remain stable during stress. Ukraine's specific geography and climate make heating essential for resilience, preventing uncontrolled winter migration and social upheaval.

Overall, strong heating capabilities are vital to Ukraine’s energy resilience during wartime. The combination of decentralised generation, varied fuels, and modular emergency systems has allowed Ukraine to maintain basic heating even under severe attacks. Kyiv and Kharkiv demonstrate that with flexible governance, rapid engineering solutions, and international support, civilians can be protected from the immediate humanitarian impacts of energy conflicts.

2.3 Ability to deal with the uncontrolled movement of people

Situation

The intensification of the warfighting in Ukraine since 2022 has resulted in a massive increase in civilian casualties and the destruction of civilian infrastructure. Along with forced displacement, this has driven people to flee their homes in search of safety, protection and help. Since the beginning of the conflict, and as of February 2025, 6.9 million refugees have crossed the borders of Ukraine to seek shelter in neighbouring countries. Additionally, 3.7 million Ukrainian citizens have fled their homes, cities and regions as IDPs to safer parts of the nation. The civilian population of Ukraine, especially in areas that suffered from fighting and destruction, needs protection and support. Overall, according to the International Organisation for Migration (IOM), around 12.7 million people in the country (2 million of whom are children) need humanitarian assistance in 2025.[46]

The ability to manage the uncontrolled displacement of people has a twofold significance. First, it is essential to maintain, as much as possible, control over mass displacements from crisis territories and, thereafter, the evacuation of civilians and their temporary relocation to shelters. Civilian mass movements can hamper the freedom of movement and freedom of manoeuvre of military operations. Second, military operations can endanger the civilian populace, be it the local population, refugees or IDPs. It is therefore essential to deconflict civilian mass movements with military operations. CIMIC is to contribute by providing an up-to-date civilian situation report showing current IDP and refugee camps, establishing and maintaining liaison with civil authorities and non-military organisations dealing with displaced persons on the

[45] ReliefWeb. (2025 October 22).
[46] USA FOR UNHCR. (n.d.).

move, and assessing current and expected mass movements of IDPs and refugees. This task has been and still is carried out mainly by the TDF, whose objective, among others, is to maintain order and security within Ukraine, in cooperation with, or instead of, local administration. On the other hand, government support is also essential, which, in partnership with neighbouring countries and various agencies on the ground (such as Non-Governmental Organisations and International Organisations), monitors displacements and makes arrangements to support them.

Assessment

Given the urgency and scale of the humanitarian need, multi-agency community refugee assistance is being implemented to support host countries' efforts. For instance, the United Nations and Non-Governmental Organisations, together with other relevant partners, elaborated the Regional Refugee Response Plan (RRP) to assist host governments in ensuring safe access to territories for refugees and third-country nationals fleeing Ukraine, in line with international standards. By investing in socio-economic inclusion and maintaining cultural links to their home country, the RRP enables self-reliance, job matching, language acquisition, and access to information on international protection, legal status, and assistance.[47]

To ensure the physical safety of people moving within their territory, Ukrainian CIMIC elements assist civil authorities in providing first aid and identifying safe places and shelters. For instance, they identify evacuation routes and the facilities available to provide initial shelter to IDPs, while also allowing, where possible, cooperation between Military Administrations and humanitarian organisations.[48]

Alongside kinetic threats along movement corridors, large-scale displacement increases exposure to exploitation, including trafficking in human beings, as well as risks of gender-based violence that may be amplified during transit and shared accommodation settings.[49] These risks affect people's freedom of movement, undermine trust between communities and authorities, and weaken evacuation efforts. When indicators show rising exploitation risks, like unregulated transport, coercive screening, or patterns linked to detention, CIMIC reports can help provide early warnings and guide protective actions such as safe transport, information sharing, and referrals. [50] This reinforces the need to integrate Countering Trafficking in Human Beings/GBV-aware risk screening into CIMIC, in coordination with competent national authorities and humanitarian protection actors, applying do-no-harm principles to avoid re-traumatisation or evidence loss.[51]

Moreover, since around 62% of IDPs were displaced for at least two years, their financial resources have been spread thin, which has negatively affected their ability to afford food, healthcare, and accommodation. The government has therefore been implementing

[47] UNHCR. (2025). pp. 11-12.
[48] CIVIC. (2023, October). p. 15.
[49] UNODC (2022). Conflict in Ukraine
[50] OSCE (2024). Protecting people fleeing Ukraine
[51] UNFPA (2024 Q4). *Ukraine Regional SitRep #26*

assistance programmes, even amid the country's internal financial struggles.[52] These programmes comprise allowances distributed not only to IDPs but also to employers and families who host them, thereby facilitating their employment and placement. To coordinate the distribution of financial aid, the Ministry of Defence and the Ministry for Reintegration of the Temporarily Occupied Territories regularly update a list of regions and communities affected by the conflict. It is important to note that IDPs can also benefit from financial support from various international donors, including the Ukrainian Red Cross Society, the International Committee of the Red Cross in Ukraine, the Norwegian Refugee Council, the World Food Programme (WFP), and the IOM.[53] Moreover, alongside the broader patterns of uncontrolled civilian movement, Ukrainian authorities have also confronted a growing challenge linked to military service avoidance and desertion. This concerns not only personnel who leave their units, but also eligible male citizens who relocate within the country or depart abroad before being called up, thereby avoiding conscription. Together, these behaviours add to irregular mobility pressures and strain the state's ability to enforce obligations, maintain accountability, and sustain manpower generation.

Conclusion

The military plays an essential role in dealing with the uncontrolled movement of people, especially in permissive environments directly threatened by the hostile military. They provide the initial response during evacuations, escort displaced people to safer places, and identify safe locations to host them. This happens principally in permissive environments, which risk being jeopardised by preplanning and by exercising these activities with the governmental organisations in charge, supporting humanitarian organisations, and the hostile military. Although it is undisputed that the primary goal of the armed forces is to fight the battle and win the war, it is not to take over the task and mission of governmental/non-governmental humanitarian organisations.

The armed forces must enhance their preparedness to deal with such situations by preplanning and exercising these activities with the relevant governmental organisations and supporting humanitarian organisations. This should also be achieved by pre-emptively identifying safe places, shelters, and possible evacuation routes, as well as by considering the amount and type of material to be allocated for such operations. Even though the armed forces provide the initial response, in the medium- to long-term humanitarian agencies and civilian institutions usually manage humanitarian crises and should take over. Therefore, coordination between the military, institutions, and organisations must be enhanced to ensure that the switching process occurs as efficiently as possible.

[52] The New Voice of Ukraine. (2022, June 22).
[53] Reznikova, N., & Panchenko, V. (2022, December). p. 19.

2.4 Resilient food and water resources

2.4.1 Food

Situation

The food situation in Ukraine, especially in rural areas, deteriorated significantly after the Russian Federation's attacks. Damage to civilian infrastructure, including the presence of landmines, unexploded ordnance (UXO), and restrictions on the movement of people and goods, prevents farmers from ploughing, harvesting and selling their crops and livestock products. In addition, damage includes partial or complete destruction of machinery and significant losses of equipment, storage facilities, livestock, and perennial crops. To evaluate the damage, the situation, and the need for humanitarian aid and other resources, the UN Food and Agriculture Organisation (FAO), based on its latest 2022 report, conducted a nationwide rural household survey in Ukraine, investigating 5,230 households across the nation. The analysis is part of a series of complementary assessments aiming at providing a comprehensive understanding of the impact of the war on Ukraine's agriculture sector and identifying possible programming and policy responses. The key findings of this survey are impressive: in rural areas, one out of four respondents reduced or completely stopped their production. This translates into a substantial decrease in household income, forcing most families to spend more than 50% of their income on food alone. In oblasts on the frontline, the average expenditure on food items is 75%, resulting in decreased spending on health care, veterinary care, fertiliser, and feed.[54]

Assessment

Until March 2022, Ukraine produced enough food to feed 400 million people worldwide, including 40% of the world's seed oil, 10% of the world's grain, and 13% of the world's corn.[55] However, following Russia's invasion, initial estimates suggest that, so far, Ukraine has sustained $80 billion in damages to its agricultural sector and 7.5% of its total cropland. As a consequence of occupation or proximity to active combat zones, Ukraine has lost almost half of its wheat production, which has been especially impacted because of the concentration of harvest areas in the south and the east, where conflict is more prominent.[56] Overall, this has led to a WFP estimate that around 11 million people in Ukraine in 2023 have been affected by food insecurity.[57] In 2024, the Ukraine Humanitarian Needs and Response Plan identified 7.3 million people in Ukraine as moderately or severely food insecure.[58]

Food insecurity is also deeply linked with landmines and explosive remnants of war, with Ukraine now being the most heavily mined country in the world. In fact, 28,000 square kilometres of land designated for cultivation have been abandoned across Ukraine, and

[54] Food and Agriculture Organization of the United Nations. (2022, December).
[55] Masterson, V. (2022, April 13).
[56] Doran, T. (2025, February 3).
[57] Bryant, E. (2023, February 24).
[58] WFP (2024, November 22)

landmines have also reduced the value of the country's exports by almost $9 billion per year.[59] Consequently, the WFP has been cooperating with FAO and demining organisations to survey Ukrainian land for mines, clear it, rehabilitate soils, and finance the purchase of seeds and equipment to restart agricultural production in the Kharkiv and Mykolaiv regions.[60] Demining efforts have also been undertaken directly by Kyiv, with three official centres active as of November 2023, run by the Ministry of Defence, the State Emergency Service of Ukraine (SESU), and the State Transport Special Service.[61]

All dimensions of food availability, access, and stability have therefore been affected, which has a strong impact on overall food security, especially in the Middle East and Africa.[62] For instance, until 2020, Eritrea, Egypt, Benin, Sudan, Djibouti, and Tanzania imported more than 70% of their wheat from Ukraine or Russia. However, within only one year of conflict, Russia's Black Sea blockade, occupation of Ukrainian territories, and active fighting, along with increased food prices, have caused a shortage of around 30 million tons of grains in Africa.[63] In response to rising food insecurity in the region, in November 2022, President Zelenskyy announced the "Grain from Ukraine" humanitarian initiative within the WFP framework. Therefore, it has been estimated that, in less than two years, the country has helped more than 16 million people in both Africa and the Middle East.[64]

Conclusion

International cooperation is essential to ensuring that food supplies remain accessible. Nations must therefore prepare contingency plans to avoid the situation described above. Furthermore, CIMIC, acting in a supporting and deconfliction role for the CivEnv task, plays a crucial role in facilitating civilian aid in conflict zones or regions facing food insecurity. This includes support to humanitarian actors such as "Action Against Hunger"[65] as well as "The HALO Trust"[66]. CIMIC elements must anticipate that such situations will arise and be prepared to intervene in close coordination with relevant stakeholders. CIMIC support to reconstruction, food distribution, and land rehabilitation should be integrated into broader contingency planning.

2.4.2 Water

Situation

Although Ukraine appears geographically to be a region particularly rich in rivers and lakes, in reality, it is water-scarce. Among European countries, Ukraine ranks 17th in terms of water availability, due to the high level of pollution of surface water, which makes it unusable for consumption and cultivation. In Ukraine, the largest water users are the energy, metallurgical,

[59] Dunais, N., Jensen, S., Clarke, E., Meryon, R., Kirk, H., & Giugovaz, M. (2024, September 10).
[60] Ukraine: World Food Programme. (n.d.).
[61] Riquier, M., & Garbino, H. (2023, November 16).
[62] El Bilali, H., & Ben Hassen, T. (2024).
[63] Bychkovska, Y. (2024, April 5).
[64] Martyshev, Dr. P., Bogonos, Dr. M., Litvinov, V., & Nazarkina, R. (2024, December 13).
[65] International NGO focused on food security, nutrition and emergency response
[66] The HALO Trust (Hazardous Area Life-support Organisation) is an international NGO focused on clearing mines and explosives to restore land for safe use.

and agricultural sectors.[67]

The territory of Ukraine is composed of water bodies to the tune of only 4%, with a slight additional percentage of lakes, ponds, rivers, canals, and reservoirs. These wetlands have been drained by enterprises and affected by the war, despite being critical for the overall balance and biodiversity of Ukrainian water.[68] It is also relevant to add that the country's irrigation and drainage (I&D) sector had already been deteriorating before Russia's 2022 invasion. This is due to I&D systems developed during Soviet times that were later broken up, leading to their subsequent breakdown. Despite these challenges, both drainage and irrigation play a central role in the production of potatoes, rice, tomatoes, cereals, and beef, thereby being critical to Ukraine's production capabilities.[69]

Assessment

With Russia's full-scale invasion of Ukraine, the country's infrastructure has sustained significant damage – an estimated $740.2 million – in relation to its water resources. Damage has been caused by targeted attacks on irrigation systems and dams, along with vandalism of water structures, and placement of mines, as well as active fighting in proximity to critical infrastructure. Furthermore, following the destruction of the KHPP, the Ukrainian irrigation and water sector reported $716.8 million in damage, a 95% increase as of February 2023.[70]

Consequently, the country has lost around 10.4% of its water resources, leading to the shutdown of hundreds of enterprises and threatening water security for agriculture and industry in the South.[71] As a result, only 65% of consumers in the country have access to water supply services, leading Ukrainian legislators to amend their law *On Humanitarian Aid* to allow the receipt of humanitarian aid from donors for water supply.[72] Water pollution and targeted attacks on critical infrastructure also made it harder for the Ukrainian population to access safe drinking water. Indeed, the WHO Water, Sanitation and Hygiene Cluster estimated that, in 2024, almost 10 million Ukrainians were in need in essential water supply and sanitation services.[73] Consequently, water cleaning facilities and the development of modern water infrastructure play a key role in strengthening and ensuring the country's overall resilience.

Conclusion

Resilient water infrastructure mainly falls under civilian oversight, managed by municipal utilities, regional authorities, and commercial providers. In Ukraine, the combined impacts of wartime attacks and structural problems, such as ageing infrastructure and pollution, increase the risk of water service failures. CIMIC does not plan or carry out water infrastructure protection. Nor does it guarantee that water services will always stay uninterrupted. Its role is to act as a civil liaison, monitor effects on the water system, and provide the civil assessment

[67] Kaminska, A. (2025, July 20).
[68] Honcharova, K. (2025, May 18).
[69] World Bank Group (2023).
[70] *Id.*
[71] Snizhko, S., Didovets, I., & Bronstert, A. (2024).
[72] WAREG. (2024, November 5).
[73] World Health Organization. (2025b, April 3).

team with a quick analysis. This analysis covers vulnerabilities, interdependencies, and civilian needs. It helps prioritise actions and avoid conflicts between civilian requirements and military operations. CIMIC also coordinates access, movement, security measures, and resource distribution, such as engineer capacity, power, transport, and force protection. This ensures urgent repairs and emergency water supplies are carried out without disrupting key military activities. Without CIMIC's support, decisions could be made with an incomplete understanding of the civil sector, increasing the risk of delays, misprioritisation, and cascading problems. These include local water outages, worsening hygiene and public health, overwhelmed hospitals, CASEVAC support, and rising public dissatisfaction. This situation can be especially problematic during intense attacks or prolonged disruptions.

2.5 Ability to deal with mass casualties

Situation

Access to health services has been hampered by military action, including damage to infrastructure, loss of personnel, security problems, mass population displacement, increased costs of health inputs, and the population's reduced ability to pay for health care. The need for routine health services has changed as a result of population movements, with varying regional effects.

Despite the precautions taken by the government and all the external support received, due to the ongoing hostilities, mines, and ammunition remnants in former combat areas hamper access and endanger humanitarian workers. The provision of humanitarian aid is extremely limited in areas under the control of the Russian Federation Armed Forces, where volunteers are assisting. Few attacks directly targeted aid agencies, but collateral damage to humanitarian infrastructure and goods occurred; humanitarian workers were killed and wounded on both sides of the frontline. The World Health Organisation (WHO) has strongly condemned acts of violence against health centres, which are violations of the IHRL.

It has been estimated that, in its first year alone, the war has caused around $1.4 billion in damage to the Ukrainian health sector, especially in the Donetska, Kharkivska, and Luhanska regions. Primary Health Care centres and hospitals are amongst the most targeted facility types, with more than 1,200 public health facilities being attacked out of almost 10,000.[74] As a consequence of these attacks, the WHO Surveillance System for Attacks on Health Care (SSA) has verified 204 deaths and 696 injuries among health workers and patients between February 2022 and October 2024.[75] In large-scale, high-intensity conflict, casualty evacuation is a cross-system activity that connects military coordination, national emergency medical services, hospital surge capacity, and patient flow management. For CIMIC, this necessitates establishing pre-arranged civil–military interfaces and agreed information requirements to ensure continuity of care when the health system faces stress[76].

[74] World Bank. (2023). p. 85.
[75] WHO. (2025, January). p. 3.
[76] JATEC CASEVAC Workshop (2025)

Assessment

Access to health facilities and transportation remains the most problematic issue for people in Ukraine, as the situation remains critical for those who are living in temporarily occupied territories and active combat areas.[77]

Indeed, the SSA has reported that 65% of Ukrainian households encountered at least one barrier to receiving healthcare, especially concerning the cost of medicines. Workforce shortages pose another barrier, since only 17% of doctors and 7% of nurses can serve 30% of the population in rural areas. Overall, this has led 68% of the adult population in Ukraine to report worsened health conditions since the beginning of the war.[78] These conditions demonstrate that outcomes are shaped not only by physical access to care but also by the quality of CIMIC across the evacuation chain. Dedicated coordination roles and interoperable information flows are required to match casualties to available civil and military treatment capacity, minimise hand-off losses, and maintain a shared understanding of constraints and priorities.

At the same time, despite these challenges, the WHO states that the Ukrainian national health system remains functional and resilient. To maintain the resilience of health care facilities, international aid has been crucial. Supporting countries and organisations have supplied resources, helping to keep hospitals and other health facilities operational. For example, the EU funded the creation of modular primary healthcare clinics as an emergency response measure. Additionally, the WHO distributed over-the-counter health kits to remote regions and provided essential equipment to mobile medical teams on the ground. Finally, by the end of 2024, with EU financial support, the WHO is coordinating with the Ukrainian Ministry of Health to evacuate 5,000 Ukrainian patients to Europe.[79] Mass-casualty settings also shift triage from a purely clinical decision to a governance issue. Scarcity-aware triage frameworks, consistent documentation, and access to remote clinical consultation can support more coherent decision-making across mixed CIMIC pathways and help preserve legitimacy and public trust when resources are insufficient to provide optimal care.

The AFU is intended to carry out an assessment of the CivEnv to inform the population about areas affected by military activities. Additionally, the AFU shares information with local authorities to identify cases of civilian deaths and injuries, with the ultimate aim of recognising trends and causes of harm to the population. This enables them to propose recommendations to military authorities to improve responses and prevent and reduce civilian casualties.

Mass-casualty planning must include survivors returning from detention, civilians, and Prisoners of War, who may suffer from complex injuries related to torture, sexual violence, and severe psychological trauma. Reports show detention-related abuse, including sexual violence, remains common in this conflict, emphasising the ongoing need for confidential, survivor-centred care, specialised referral systems, and coordination with protection and

[77] WHO. (2025, March 3). p. 2.
[78] WHO. (2025, January). pp. 3-7.
[79] *Ibid*. p. 8.

accountability bodies. [80] For CIMIC, this is not a purely medical issue: it affects population trust, information willingness, and the perceived legitimacy of response, and therefore should be reflected in arrangements with health authorities and humanitarian protection actors.[81]

Displacement and the humanitarian burden are intertwined with ongoing attacks on Ukraine's health sector. WHO documented 2,215 healthcare attacks from February 2022 to January 2025, including the destruction of over 300 medical facilities and damage to more than 2,000. A national survey of 617 Ukrainian health facilities revealed issues with shelter protection and maintaining service continuity amid continued threats. Additionally, mass-casualty management is complicated by the high number of wounded soldiers- estimated at 370,000 to 390,000 since Russia's full-scale invasion- many requiring specialised treatment and long-term rehabilitation support.[82]

Conclusion

CIMIC must contribute to preventing and responding to mass casualties by identifying and locating safer areas for the population and organising evacuation routes from combat-affected areas, based on an in-depth understanding of the civil environment, including the status and redundancy of local health systems. To do this effectively, CIMIC teams should quickly and systematically assess factors in the operational area that increase civilian risk, such as exposure along movement corridors, proximity to critical sites, and deterioration of emergency services, while maintaining ongoing coordination with civil authorities, humanitarian, and health organisations.

Due to the persistent threats to medical facilities, medical support may need to operate through dispersed, protected, or subterranean treatment sites, which CIMIC should consider in planning movement, liaison, and CIMIC tasking. Additionally, the continuous influx of wounded personnel strains medical facilities and rehabilitation services, making improvements to shelters, continuity-of-care measures, and emergency treatment plans crucial. Swift treatment and recovery of injured soldiers are essential, as they impact operational stability and national morale.

In addition, the Ukrainian experience highlights that effective CASEVAC is an enabling condition for broader CIMIC objectives. Embedding casualty-evacuation coordination into national resilience planning through predefined CIMIC roles, interoperable patient-flow information, and legally/ethically robust triage arrangements reduces secondary displacement pressures, sustains societal confidence, and strengthens overall continuity of essential services.[83]

[80] OHCHR (2025). 43rd *Report on the Human Rights Situation in Ukraine*
[81] OSCE (2024). *Eighth Interim Report on Violations of IHL and IHRL in Ukraine*
[82] Factually. (2025, October 28).
[83] JATEC CASEVAC Workshop (2025)

2.6 Resilient Telecommunications Networks

Situation

Since Russia's full-scale invasion, Ukrainian telecommunications have suffered losses in various sectors. This includes a total of 19,000 hours of disrupted connectivity being reported in the first year of the war alone, as well as 25% of all cell tower stations and 25% of fixed broadband network facilities in the country being damaged or destroyed by the end of 2024.[84] A complete and exhaustive evaluation and estimation of the destruction and recovery needs will not be possible until the full liberation of the occupied regions. However, by the end of 2023, the World Bank had estimated that over $2 billion in direct damage had occurred.[85] On the other hand, indirect losses to the Ukrainian digital sector are estimated at around $19 billion.[86]

Despite the damage, thanks to efforts to maintain the nation's internet connectivity, Ukraine's overall communication resilience has been maintained through the strong and continuing commitment of mobile operators Kyivstar, Vodafone, and Lifecell, as well as the State Commission for Special Communications and the National Commission of Electronic Communications.[87]

Assessment

Since the start of the war, Ukraine's public and private sectors have been involved in repairing telecommunications and critical networks. To increase the resilience of its telecommunications system and the availability for military purposes, Ukraine has taken several measures, including:

- Diversification of telecommunications infrastructure, which has included building new fibre optic cables and satellite networks to connect to international networks. Furthermore, a new level of diversification and cooperation was reached when, in March 2022, Kyivstar, Vodafone, and Lifecell introduced national roaming, allowing Ukrainian phones to connect to any working operator in a given area. Later on, rival companies also began sharing fuel and generators, therefore allowing for network continuity.[88]

- Strengthening cybersecurity, as cyberattacks have been a significant threat to its telecommunications infrastructure. For instance, it is now standard across Ukraine's internet service providers to implement two-factor authentication and an incident response team.[89] Furthermore, heightened protection of critical data against cyber and physical attacks on telecommunication infrastructure has been ensured by a change in data protection regulation. This allowed the government to accept cloud services

[84] Frąckiewicz, M. (2025, June 21).
[85] Desmarais, A. (2024, April 23).
[86] Harmash, O. (2024, October 10).
[87] NCEC. (2025, October 13).
[88] Desmarais, A. (2024, April 23).
[89] Frąckiewicz, M. (2025, June 21).

provided as free humanitarian assistance by companies such as Microsoft and Amazon and subsequently move its data storage and processing abroad.[90]

- Cooperation with international partners to increase the resilience of its telecommunications infrastructure. This has included cooperation with the EU and NATO to develop joint cybersecurity initiatives and establish international communication channels in a crisis. Furthermore, between March and April 2022, USAID and Elon Musk's SpaceX donated 5,000 terminals to Ukraine.[91] This enabled emergency internet connectivity and bolstered communication capabilities, with allied governments and organisations later paying for the delivery of the satellite terminals.[92]

- Redundancy and backup systems, as Ukraine has been working to ensure that it can continue to operate in the event of disruptions. This has included the use of backup power systems, redundant network infrastructure, and geographically dispersed data centres. Indeed, to ensure minimal disruption, Ukraine relocated various businesses and assets, such as IT companies and data centres, away from potential sources of danger. However, as relocation does ensure safety, military air defence capabilities also come into play against kinetic threats.[93] Furthermore, by distributing Starlink terminals to rural villages and frontline outposts, the country has equipped itself with a widespread satellite safety net.[94]

Conclusion

Overall, although Ukraine's telecommunication networks have notable strengths, addressing existing challenges is vital for enhancing resilience. Protecting against Russian Federation attacks on telecommunication infrastructure, along with investments in modernisation, cybersecurity measures, and regulatory reform, are crucial priorities. Progress in network resilience is essential for supporting economic growth and societal connectivity. Continuous efforts to strengthen infrastructure, cybersecurity defences, and regulatory frameworks are necessary to face future challenges. Additionally, fostering collaboration between government agencies, telecommunications companies, and international partners can boost resilience efforts and ensure uninterrupted communication, even during unforeseen disruptions.

Ukraine enhanced its telecommunications resilience and prepared for future threats by proactively addressing challenges. Since these networks rely on transnational systems, their operation necessitates international cooperation, with NATO playing a vital role in supporting member states and coordinating collective responses to crises. The Alliance's effectiveness is essential for maintaining system stability.

[90] Stupp, C. (2022, June 14).
[91] Reuters. (2022, April 6).
[92] Aebi, S., Hauri, A., & Kamberaj, J. (2024, March). p. 28.
[93] *Ibid*. pp. 31-32.
[94] Desmarais, A. (2024, April 23).

2.7 Cyber Domain Implications for Resilience and CIMIC Functions

Situation

Since 2014, and increasingly since the full-scale invasion in 2022, Ukraine has endured persistent, state-backed cyber operations. These actions are a vital element of Russia's hybrid strategy, closely coordinated with kinetic strikes, disinformation campaigns, and economic pressure. Governmental and independent cyber agencies have documented a broad spectrum of attacks on ministries, local administrations, critical infrastructure, financial institutions, media organisations, and telecommunications providers.[95]

Cyber operations targeting Ukraine aim to achieve four primary objectives: compromising governmental command and control, disrupting critical public infrastructure, diminishing public trust in institutions, and impairing the capabilities of the AFU by targeting dual-use civilian systems. Techniques employed include deploying destructive malware, infiltrating industrial control systems, executing large-scale distributed denial-of-service attacks, and disrupting satellite and mobile communication networks.

From a resilience and CIMIC perspective, the cyber domain has thus become a decisive front where the integrity of government functions, critical infrastructure, and civil-military information flows is contested daily. This directly affects several NATO Baseline Requirements (BLRs) for resilience already analysed in this section.

Assessment

Cyber operations against Ukraine have produced operational, societal, and psychological effects that underscore the need to treat cyber resilience as a core component of national preparedness and CIMIC functionality.[96] Within the Political–Infrastructure–Information domains, national governments, ministries of digital transformation, cybersecurity agencies, and interior and defence ministries must integrate cyber resilience into Baseline Requirements implementation by establishing minimum standards for all critical sectors, conducting regular interministerial risk assessments that consider hybrid kinetic-cyber interaction, enforcing incident-reporting obligations, and embedding digital continuity, including offline decision-making tools and resilient communication pathways, into continuity-of-government frameworks.[97]

In the realms of Military-Information-Infrastructure, responsibilities are typically divided among various entities, including CIMIC, defence IT/CIS authorities, national Cyber Emergency Response Teams, and operators of critical digital platforms. These often operate under different legal and governance frameworks. This fragmentation makes it challenging to achieve a clear picture across all stakeholders, covering data, communications, IT services, and physical infrastructure. It slows the pace at which CIMIC can turn cyber incidents into understandable reports on operational impacts and civil vulnerabilities. Each nation primarily

[95] CCCS, (2022 June 22)
[96] CCCS, (2022 June 22)
[97] NATO (2024)

focuses on protecting and maintaining the continuity of systems supporting CIMIC, including classifying assets by importance, segmenting networks, enforcing strong authentication, using resilient hosting solutions (including trusted or sovereign options), maintaining geographically separate backups, and rehearsing manual backup procedures.

NATO provides coordination and helps nations build resilience, but its cyber efforts are mainly defensive, focused on safeguarding NATO networks and supporting alliance operations in cyberspace. When specific effects in cyberspace are needed to help operations, these are voluntarily provided by nations under political oversight. Such effects aren't part of NATO's standing capabilities and are often time-sensitive because many offensive tools and access points can quickly become unusable.[98]

At the Infrastructure–Political–Social interface, critical infrastructure operators, municipal and regional authorities, CIMIC staffs, and emergency-management agencies must jointly design redundancy around essential civil-military dependencies, ensuring multipath communication networks, stockpiles of replaceable digital components, and mirrored databases located in physically separated and independently powered sites, thereby enabling evacuation procedures, humanitarian logistics, and crisis-coordination mechanisms to function even under severe digital degradation.[99]

Strengthened public-private and international cooperation across the Economic–Information–Infrastructure–Political domains is equally essential, requiring telecom providers, cloud operators, cybersecurity companies, ministries of digital transformation, and organisations such as the EU, NATO Cooperative Cyber Defence Centre of Excellence, and partner states to institutionalise shared resilience mechanisms that guarantee rapid technical support, enable scalable international assistance and emergency failover, and expand information-sharing frameworks to include CIMIC-relevant civil actors and humanitarian networks.[100]

Finally, the Military–Information–Social domains demand that NATO J9, national CIMIC commands, cyber defence organisations, operational-level headquarters, civil-protection agencies, and NGOs embed cyber expertise directly into CIMIC planning and exercises by assigning cyber liaison officers, training CIMIC personnel to operate in low-connectivity environments, incorporating realistic cyber-physical degradation into routines, and adopting an integrated cyber-CIMIC SOP that defines responsibilities, reporting thresholds, and escalation mechanisms to ensure coherent civil-military decision-making under contested digital conditions.[101]

[98] ENISA (2024)
[99] ENISA (2024)
[100] Kvartsiana, M. (2023)
[101] NATO (2025) AJP-3.19

Conclusion

Cyber operations targeting Ukraine demonstrate that the digital domain is crucial for national resilience and CIMIC effectiveness. Attacks on energy, telecommunications, civil registries, transport, and related apps highlight three main points: essential digital services are closely tied to CIMIC coordination; adversaries time cyberattacks with kinetic strikes to maximise disruption; and resilience relies on clear roles, redundancy, and rapid cross-sector cooperation.

Incorporating cyber resilience into national Baseline Requirements involves defining responsibilities across digital transformation, defence, and interior ministries, supported by national Computer Emergency Response Team(s). Key measures include mandatory standards, risk assessments, incident reporting laws, and continuity plans with offline procedures and secure backup communications to safeguard vital state functions. Protecting national and multinational essential IT networks and services requires that defence organisations and relevant public authorities, and system owners classify decision-support tools, crisis hotlines, e-government portals, and displacement platforms as high-value assets and secure them through segmentation, strong authentication, sovereign cloud hosting, distributed backups, and continuous monitoring. CIMIC should also maintain manual backup procedures to ensure the continued operation of essential systems.

Building redundancy in CIMIC dependencies, especially for telecommunications, energy, registries, and transport, is vital. Operators and regional authorities must guarantee multiple communication routes, fibre, mobile, satellite, and radio, and maintain mirrored databases for registries and warning systems. Pre-positioned ICT equipment and evacuation plans tailored for degraded information environments enhance operational continuity during cyber disruptions. Public-private and international cooperation are essential for cyber resilience. Telecoms, cloud providers, and cybersecurity firms should be integrated into national response strategies. Partnerships, cross-border assistance, international cloud failover arrangements, and expanded information-sharing networks strengthen the system's capacity to absorb and recover from cyberattacks affecting CIMIC.

Embedding cyber expertise within CIMIC ensures rapid translation of cyber incidents into civil effects and priorities. Cyber liaison officers, joint exercises, low-connectivity training, and clear SOPs defining responsibilities and escalation procedures support CIMIC in maintaining coordination in contested or degraded digital environments. The Ukrainian example illustrates that cyber resilience is fundamental to supporting the civil environment, crucial to national defence. Improved governance, protection of critical digital assets, redundancy in key networks, effective public-private collaboration, and CIMIC teams capable of functioning under degraded conditions all contribute to government continuity, civilian protection, and enhanced CIMIC cooperation in modern conflicts.

2.8 Transportation System

2.8.1 Air

Situation

Airports hold great strategic importance during a conflict. According to the Great Circle Mapper, Ukraine has 68 airports. Just hours after Russian Federation troops invaded Ukraine, airlines were advised to "exercise care" within the Russian Federation as fuel costs increased, Ukraine closed its airspace, and has maintained its closure “due to critical safety risks." According to the European Union Aviation Safety Agency, Ukrainian skies, as well as the airspace of the Russian Federation and Belarus within 100 nautical miles of Ukraine's border, may raise concerns. During the first day of the invasion, Ukraine’s Central Military Command reported that the Russian Federation Armed Forces bombed several airports, including Kyiv Boryspil, Nikolaev, Kramatorsk, and Kherson.[102] Already in the early stage of the invasion, 12 out of 19 civilian airports were either damaged or destroyed, including those at Dnipro and Odesa, which had recently undergone infrastructure updates.[103] Overall, this has led Ukraine to estimate that, by July 2022, infrastructure damage would be around $95 billion, of which $5 billion would be to airports and air navigation equipment.[104]

Assessment

In the current situation, the once-vibrant and bustling air transportation system has been forcibly repurposed primarily to support military needs amid the ongoing conflict. This transformation, dictated by the pressing demands of warfare, has effectively sidelined the system's civilian and commercial functions. The destruction of airports and airfields significantly reduced the capacity to handle goods, including humanitarian assistance. It has also dealt a severe blow to Ukraine's ability to handle not only military logistics but also the flow of essential goods, including crucial humanitarian aid desperately needed by affected populations. The limited availability of civilian air transport capacity forces the transportation of auxiliary and supply goods by alternative means, such as rail and landlines.

Conclusion

The destruction and closure of airports in Ukraine have immediate and far-reaching consequences, impacting civilian air transport, humanitarian aid delivery, economic activities, and overall logistics. The situation highlights the interconnectedness of military and civilian infrastructure and emphasises the importance of international responses to tackle both immediate challenges and long-term infrastructure resilience. If the attacks cease, the situation must be reassessed, and the reconstruction of civil infrastructure should be initiated in close cooperation between military and civilian entities. A system is needed to coordinate the use of available capabilities for humanitarian assistance and military support.

[102] Critical Threats. (2022, February 28).
[103] International Transport Forum. (2022, December 22). p. 2.
[104] The National Council for the Recovery of Ukraine from the Consequences of the War. (2022b, July).

2.8.2 Water

Situation

Before 2022, Pivdennym Chronomorsk, Mariupol, Odesa, and Mykolayiv were Ukraine's most important ports, accounting for more than 90% of the country's seaport freight turnover. In particular, the port of Mykolayiv had a critical role in Ukraine's grain exports, 98% of which flowed through the Black Sea ports. However, since the start of the invasion, grain exports in the area became a Russian Federation target of sea mines as well as missile and drone attacks to port infrastructure. Ukraine lost control of the port of Mariupol in May 2022, with the port of Mykolayiv becoming inoperative and Chornomorsk, Pivdennyi, and Odesa only operating at partial capacity.[105]

To address the reduced flow of goods to Ukraine, the European Commission launched the EU-Ukraine Solidarity Lanes in May 2022. The project invested around $2.2 billion to provide alternative roads, rail, and inland waterways.[106] Furthermore, in July 2022, due to US and Turkish intercession, Russia and Ukraine introduced the Black Sea Grain Initiative. This initiative ensured partial safety for Ukrainian exports going through the ports of Chornomorsk, Odesa, and Pivdennyi. As a result, in one year, Ukraine managed to export around half of its usual pre-war grain and foodstuffs.[107]

However, because Russia suspended the deal in July 2023, attacks on Ukrainian port infrastructure resumed, leading to the launch of a Black Sea corridor alternative in August of that same year. This alternative corridor allows ships to travel through the Danube River ports of Izmail and Reni, thus allowing Ukraine to export foodstuffs to Africa and the Middle East.[108]

Assessment

The new maritime corridor has been coordinated by the Marine Search and Rescue Service, the State Border Guard Service, and the Ukrainian Sea Ports Authority, with the Navy neutralising drifting mines to allow safe passage for the vessels. As access is highly regulated, it is prohibited for vessels flying the Russian Federation flag or for those subject to sanctions. Despite the Russian Federation's attempts to destroy ships or intimidate ship owners, almost 10,000 commercial vessels have transited through the corridor in 2024.[109] The Ministry for Development of Communities and Territories of Ukraine reported that "last year, in the Odesa region alone, air raid warnings were issued more than 800 times. The total time during which port workers were forced to interrupt operations and stay in shelters exceeds 32 days. Despite these conditions, the logistics process did not stop and ensured stable exports." As a result, since the beginning of the operation, 120 million tons of cargo have been processed, with over 15 million tons of grain processed so far in 2025.[110]

[105] Bandura, R., Timtchenko, I., & Robb, B. (2024, April). p. 2.
[106] European Commission. (2025, October 1).
[107] United Nations. (n.d.).
[108] Bandura, R., Timtchenko, I., & Robb, B. (2024, April). p. 3.
[109] ForwarderLaw. (2025, April 25).
[110] Ministry for Development of Communities and territories of Ukraine. (2025, May 12).

Moreover, in recent years, inland waterways have gained strategic importance in Ukraine's transport infrastructure, with the Dnipro and Danube rivers being revived as major freight corridors. Indeed, amid rising maintenance costs and war-related risks on overland routes, inland waterways have emerged as a cost-effective, environmentally friendly, and strategically advantageous alternative.[111]

Conclusion

The Ukrainian waterway situation reflects a vital component of the transportation infrastructure. The blockade of Ukrainian seaports, particularly affecting grain shipments, reveals significant vulnerabilities in maritime trade routes and emphasises the need for strategic diversification. Addressing these vulnerabilities requires a multi-faceted approach, including diplomatic efforts, infrastructure resilience, and exploration of alternative transport routes to enhance economic security and mitigate international risks. However, in the current situation, the use of seaports and the Black Sea as a sea line of communication will foreseeably be denied by the Russian Federation fleet.

2.8.3 Road

Situation

The national, regional, and communal public roads in Ukraine compose a network which is almost 170,000 kilometres long. However, around 90% of these roads have not undergone any repairs in the 30 years prior to the Russian Federation invasion, meaning that their durability and surface evenness do not meet modern standards. This problem is further exacerbated during the spring and autumn mud seasons, when thawing ground and heavy precipitation severely degrade road conditions and limit vehicle mobility. Furthermore, out of the 28,500 roads and railway bridges accounted for in 2023, more than a third are in critical condition, with an average age of over 60 years.[112]

As most of the country's road network dates back to the Soviet era, the government began investing in its repair after becoming closer to the EU around 2014. Consequently, around 10% of Ukraine's roads were repaired between 2016 and 2019. After this time, President Zelenskyy announced that roads would be repaired under the Big Construction initiative, which led to the construction or repair of over 14,000 kilometres of roads in about two years.[113] Indeed, by August 2023, more than 25,000 km of roads and at least 350 bridges and bridge crossings had been destroyed or rendered unusable.[114] To ensure the resilience of the Ukrainian road network, within two years of conflict, more than 2,000 kilometres of highways and national roads have undergone emergency repairs.[115]

[111] The Center for Transport Strategies. (2022, January 5).
[112] Aebi, S., Hauri, A., & Kamberaj, J. (2024, March). p. 22.
[113] Bandura, R., Timtchenko, I., & Robb, B. (2024, April). p. 3.
[114] Aebi, S., Hauri, A., & Kamberaj, J. (2024, March). p. 23.
[115] World Bank. (2023, December). p. 132.

Assessment

Roads are clearly the first escape routes for the civilian population, which is why they were immediately targeted for the attempted seizure of Kyiv in order to prevent the evacuation of civilians, forcing the government to surrender under the pressure of the frightened people.

However, despite constant attacks by the Russian Federation Armed Forces, Ukraine's critical road system is significantly operational. Ukrainian CIMIC TDF and civil administration systematically deconflicted the use and occupation of the road network for evacuation efforts while simultaneously identifying strategic choke points to impede the advance of Russian Federation forces. This aims to streamline traffic flow for safe civilian evacuation routes while strategically obstructing key avenues of approach for the Russian Federation military. By delineating clear evacuation pathways and pinpointing critical junctures for defensive measures, this system enhances both civilian safety and military preparedness. However, using available road networks for both military and civilian transport carries the risk of mutual influence and restriction.

Conclusion

Ukraine's road infrastructure is a critical component of its transportation network, with high relevance on the Ukrainian side as the Line of Communication to ensure Freedom of Movement and the speedy deployment of AFU, as well as for civilian traffic in both directions. Transport of goods and help to the one and movement of IDP in the opposite direction.

On the other hand, the road network is crucial for the Russian Federation forces to advance. However, it can be assumed that the attacks on the road network will continue due to its importance for military transport and the morale of the population. In addition, to ensure deconfliction between civilian and military use, continuous civil–military exchange and joint deconfliction are required.

2.8.4 Rail

Situation

Since Russia's full-scale invasion of 2022, Ukraine's transport and logistics system has been relying on the country's rail network as its backbone. Indeed, Ukraine possesses around 1,500 railway stations and a rail network of around 20,000 kilometres, making it one of Europe's most extensive.[116] The country's railway density surpasses the European average, connecting major cities and crossings with other countries.

However, the network has been suffering heavy losses, with almost 10,000 kilometres of railway tracks and more than 40 stations having been damaged, destroyed or lost by 2024.[117] At the same times, with rail freight volumes falling by almost 50%, Ukralinytsia – the country's state-owned rail company – has proposed a 41.5% increase in freight tariffs for 2026.[118] To

[116] Railways. UkraineInvest. (2025).
[117] UAnews. (2024).
[118] Interfax-Ukraine. (2025, November 5).

adapt, the country has begun efforts to repair and modernise its infrastructure, with new rails being supplied and rebuilt through international efforts. For instance, Ukraine has been working to adapt its railway infrastructure to European gauge standards, also in view of its prospective EU membership.[119]

Assessment

Rail transportation is of utmost importance for the rapid evacuation of the wounded from war zones, thanks to the establishment of ambulance trains. Additionally, although it is not yet able to sustain it, rail transportation has become strategically crucial for grain transport due to limitations in maritime transport. In summary, the railways are clearly one of the most efficient means of supplying troops on the front lines, distributing humanitarian aid in war zones and ensuring the transport of goods to the people in need. Rail-based evacuation capacity is therefore not only a transport issue but also a patient-flow management challenge. CIMIC mechanisms should link rail evacuation planning to real-time visibility of receiving capacity and onward movement options, enabling prioritised routing, deconfliction, and continuity of care during surge events. The ability to promptly evacuate the population by train is an essential factor for the armed forces, as civilian evacuation could require significant CIMIC involvement.

Conclusion

Ukraine's rail network remains a vital artery for transportation, supporting both military and civil purposes. Efficient coordination between military and civilian authorities is essential to ensure that the needs of both civilian and armed forces are met. Despite attacks, the rail network is facing challenges from ageing infrastructure and funding constraints, before the war. Still, its functionality and connection to the Trans European Network for Transport need to be ensured with donor support, such as the European Investment Bank.

2.9 Societal-, Information-, Financial- and Economic Resilience

2.9.1 Societal Resilience

Situation

Despite the lingering effects of historical conflicts, economic instability, and political tensions, Ukrainian society shows resilience against ongoing attacks. The threat to Ukrainian independence and sovereignty has strengthened national unity and hope, even though distress and perceived threats remain high. This resilience is mainly built through a strong sense of community, cultural heritage, and solidarity. In this context, civil society organisations play a vital role in supporting resilience by offering networks and promoting social cohesion.

At the same time, societal resilience can weaken when civilian harm is deliberately used to instil fear, shame, and social division, including through CRSV and other abuses related to detention, with impacts that extend beyond individual victims to families, communities, and the overall capacity to resist or cooperate with authorities. The resilience of Ukrainian society is

[119] World Bank Group. (2025, January 22).

evident in its ability to withstand external pressures and maintain national unity. Upholding national values, promoting inclusive policies, and rebuilding trust between citizens and institutions after years of corruption are crucial for nurturing societal resilience in Ukraine.

The AFU play a key role in sustaining societal resilience. Their success on the battlefield fosters national identity and cohesion, and their support for the population significantly contributes to restoring trust in national institutions. Furthermore, their direct involvement in community development projects, such as rebuilding infrastructure and providing medical aid, fosters a sense of solidarity and mutual support among civilians, strengthening the bond between the military and the people.

Assessment

Ukraine's resilience to Russia's war came as a surprise to politicians, experts, and the general public worldwide. While many scholars point to national unity, an increasingly salient component of this debate is resilience at all levels. Ukraine demonstrated its preparedness to absorb shocks, adapt to new circumstances, and stay robust without losing the ability to fulfil its basic functions.

Simultaneously, societal resilience declines when civilian harm is deliberately used to foster fear, shame, and social splitting. In Ukraine, monitoring groups have recorded CRSV and other abuses connected to detention, affecting civilians among others. These impacts extend beyond individual victims to their families, communities, and the overall capacity to resist or cooperate with authorities.[120] These patterns highlight how human security indicators serve as both measures of societal stress and early warnings of rising repression and displacement in occupied or contested areas. For CIMIC, using these indicators helps better understand situations, improve resilience assessments, and foster more credible, protection-focused engagement with local actors.

A valuable contribution to the country's societal resilience lies in the spread of volunteer and charitable activities as a form of engagement. Consequently, in 2022, around 35% of Ukrainians participated in volunteer activities, compared to only 5% the previous year.[121]

Furthermore, Ukraine has made significant progress in its long struggle against corruption since the beginning of the invasion. The Ukrainian authorities have taken several steps to address the issue, including establishing a new anti-corruption architecture, embracing digitalisation, and conducting ambitious reforms in key sectors such as government procurement, banking, and energy.[122]

Conclusion

Ukrainian societal resilience is evident in its ability to persevere amidst not just military attacks by the Russian Federation. Ukrainians exhibit resilience through solidarity, innovation, and civil

[120] OSCE (2024). *Sixth Interim Report on Violations of IHL and IHRL in Ukraine*
[121] Reznikova, N., & Korniievskyi, O. (2024). pp. 123-124.
[122] Lough, J. & Lutsevych, O. (2024, February). pp. 7-8.

engagement. Nurturing this resilience requires continued support for civil society, inclusive policies, and international collaboration. Upholding democratic values, fighting corruption, and promoting social cohesion are essential for fostering long-term resilience in Ukraine and could serve as a blueprint for other nations.

2.9.2 Information Resilience

Situation

The weaponisation of information has been part of the Russian Federation's hybrid operations in Ukraine since 2014. The rapid rise in internet coverage and social media consumption makes the current invasion different. Ukraine is "the most wired nation ever to be invaded," with 75% of its population using the internet and 92% having access to 4G mobile networks.[123]

In the wake of Russia's full-scale invasion of Ukraine, Moscow's communication strategy was analysed, and the conclusion was reached that the country had started to signal its intentions through "a massive propaganda campaign." Although Putin's inflammatory language had already been noted, the "craziness of his narrative" led the US government not to take the threat seriously. [124] However, in the weeks before the invasion, Western news outlets started reporting on Russian Federation troop movements along the border with Ukraine, suggesting that an incursion was being prepared. As a response, less than two weeks before the invasion, the Ministry of Foreign Affairs of the Russian Federation published a piece under their website sections *Articles, Rebuttals, Examples of manifestations of Russophobia* and *Published materials that contain false information about Russia*. In this article, they attempted to control the narrative by denouncing the "collusion between the Western governments and media aimed at fanning tensions over Ukraine by means of a massive and coordinated fake news campaign designed to serve their geopolitical interests, in particular, to divert attention from their own aggressive actions".[125]

Following its invasion, the Russian Federation unleashed a full-scale propaganda campaign, relying on a mix of official state media sources, anonymous accounts on social media, and its paid army of internet trolls to flood comments sections and discussion forums on news websites and online sources. The disinformation narratives have broadly sought to demoralise Ukrainians in their defence efforts, exploit societal splits and sow new divisions, and poison trust in the independent media and public institutions. [126]

In the newly occupied regions in the south and east, the Kremlin's propaganda agents, together with local collaborators, actively promote the messages of Ukraine's inevitable defeat and mission to defend locals against the "far-right nationalists and neo-Nazis" in Kyiv. While denazification is only one of the arguments leveraged, the Russian Federation propaganda has also been relying on dehumanisation, anti-Semitism, and anti-Western sentiments as part

[123] The Economist. (2022, April 2).
[124] Medzerian, D. (2023, December 8).
[125] The Ministry of Foreign Affairs of the Russian Federation, (2022, February 11).
[126] U.S. Department of State. (2025).

of its narrative.[127]

Assessment

Ukraine has mastered the information war and successfully established its own narrative. This process consisted not only of a "rally 'round the flag" effect driven by the increased popularity of President Zelenskyy and his government, but also of broader support for the AFU. AFU has put effort into improving its image among the population and establishing a good relationship with civilians, recognising that this is a key element that enhances the effectiveness of the armed forces and the population's cohesion in withstanding the invasion.

Furthermore, the IT Army of Ukraine[128] provides critical aid in countering not only Russian Federation cyberattacks but also media propaganda. Composed of Ukrainian and international volunteers joining forces with the Ukrainian Ministry of Defence, the IT Army of Ukraine primarily relies on Telegram and related online platforms to communicate and coordinate; its presence on X/Twitter has been inconsistent due to account suspensions.[129] Its activities range from exposing information to disrupting the Russian Federation's communications and networks, aiming to "block enemy media propaganda and convey the truth about the war to their audience".[130]

A growing concern for information resilience is technology-facilitated gender-based violence (TFGBV), such as online harassment, sexual intimidation, doxing, and coordinated attacks that can silence voices and distort the information landscape. [131] This digital harm can deepen fear and lead to self-censorship, especially among women in public roles and displaced people. It can also feed disinformation efforts aimed at eroding trust and social bonds. To build resilience and ensure effective CIMIC engagement, communication must be protection-sensitive and aware of referral needs, so that information doesn't unintentionally put individuals at greater risk..[132]

Conclusion

Exposing and countering the Russian Federation's media influence and pro-Russian Federation narrative to gain sympathisers has been a leitmotif for Ukraine in recent years. It is therefore of paramount importance that Ukraine continues to invest in its information and social resilience to prevent the Russian Federation, as well as other competing nations, from increasing their influence. Furthermore, they should work to maintain a positive view of the armed forces to increase trust between civilians and the military, thereby strengthening their resilience.

[127] Treyger, E., Williams,H., & D'Arrigo, A. (2025, May 23).
[128] Two days after Russia's February 2022 invasion, Ukraine's Digital Transformation Minister announced a volunteer IT Army on Twitter. Over a year, it expanded to nearly 200,000 volunteers carrying out cyber operations against Russian companies and infrastructure.
[129] Council on Foreign Relations, (2022, February).
[130] The official website of the IT Army of Ukraine. (n.d.).
[131] UN Women (2024). *Violence against women in the online space*
[132] UNFPA (2024 Q4). *Ukraine Regional SitRep #26*

2.9.3 Financial and Economic Resilience

Situation

The Russian Federation's full-scale invasion of Ukraine happened while the country was bouncing back from the financial difficulties brought by the COVID-19 pandemic. At a moment of nearly-found economic stability, this was disrupted again by attacks on infrastructure, civilian and military deaths, and mass displacement. As a consequence, in the first year of the war alone, Ukrainian Real Gross Domestic Product (GDP) dropped by 29% while inflation rose to 26%.[133] As a counter strategy, the Ukrainian Ministry of Finance introduced key financial measures, including managing public debt, optimising budget expenditure, and issuing Wartime Bonds. By avoiding monetary financing, inflation was kept at around 5% in 2023, while GDP increased by 3.6% 2024.[134]

At the beginning of the invasion, export values dropped consistently due to damage to production facilities – especially in minerals, metallurgy, and agricultural goods – while service exports have proven more resilient. Moreover, mobilisation, displacement, and conscription have reduced the number of adults available to work by about 5 million between 2021 and 2023. Combined with businesses being closed or damaged, this turned the labour market into a challenge for Ukraine's economy.[135]

However, Ukrainian institutions and society have been able to adapt to the new situation by promptly shifting from a peacetime to a wartime economy, enabling the nation to resist and adapt to the new circumstances. After the 2022 retreat of the Russian Federation Armed Forces, only some regions in the east and south remain occupied, while the rest operate under a different war perception.[136] Nevertheless, economic conditions remain challenging as the widespread destruction prevents people from conducting everyday life, and missile attacks spread terror and damage to territories that are not on the front line.

Assessment

The ability of Ukrainian institutions and society to quickly shift from a peacetime to a wartime economy demonstrates a commendable level of adaptive resilience, which has been crucial in helping the nation cope with the challenges of the ongoing conflict.

International cooperation has also been instrumental in allowing Ukraine to access critical financial resources. With the Ukraine Facility, the EU has pledged over €38 billion to Ukraine between 2024 and 2027, through a combination of loans and grants to support the country's "recovery, reconstruction, and path towards EU accession."[137] Furthermore, in 2023, the International Monetary Fund launched a $15.5 billion, four-year Extended Fund Facility

[133] Danylyshyn, B. (2024, February 27). p. 2.
[134] Ministry of Finance of Ukraine. (2025).
[135] OECD Economic Surveys. (2025, May 6). pp. 19-23.
[136] Petrov, N. (2024). p. 1.
[137] European Commission. (n.d.).

programme, of which more than $10 billion had already been provided as of April 2025.[138]

Moreover, in 2024, the EU Council agreed on an exceptional macro-financial assistance loan of up to €35 billion as part of a broader €45 billion G7 loan mechanism. The loan foresaw repayments to be covered by future revenues generated from immobilised Russian Federation sovereign assets under the Extraordinary Revenue Acceleration initiative.[139] As of October 2025, the EU is also considering the loan of $217 billion in frozen Russian Federation assets to finance Ukrainian defence efforts, as well as its government programmes and budget deficit. Acting as a loan, the money would be later "repaid to Russia if it agreed to compensate [Ukraine] for the destruction caused by the war."[140]

Conclusion

The assessment highlights the urgent need for a comprehensive strategy centred on post-war economic recovery, reconstruction, and rehabilitation. Prioritising the rebuilding of infrastructure, restoring everyday life, and tackling widespread economic challenges should be at the forefront of recovery efforts. Given the scale of economic decline and extensive destruction, international support and collaboration will be crucial to an effective recovery. In this context, CIMIC tasks focus on CMI, supporting the civil assessment by identifying critical economic vulnerabilities and dependencies, to align military priorities with civilian recovery efforts. Collaborative efforts involving international organisations, humanitarian agencies, and donor nations will be vital in addressing both immediate needs and long-term reconstruction.

The following chapter, therefore, concentrates solely on the need for ongoing Western financial support, the methods by which it is provided, and the transparency and oversight measures required to maintain it.

[138] Ministry of Finance of Ukraine. (2025).
[139] Council of the EU. (2024, October 9).
[140] Temnycky, M. (2025, October 23).

2.10 Summary

Regarding the 7BLR in Ukraine, CIMIC leads efforts to support the AFU by aligning military requirements with civilian capabilities and assistance, ensuring continuous operations under pressure. Using the 7BLR as an operational resilience framework, CIMIC helps coordinate military activity with the needs, capacities, and limitations of civilian communities and essential services. The conflict demonstrates that resilience in high-intensity war is shaped by the interaction between military operations and the civilian system: gaps in any BLR can quickly lead to operational friction, while effective civil–military coordination can minimise cascading disruptions and maintain societal functioning.

Within this approach, CFI provides the analytical function by mapping BLR-relevant civil capabilities, critical infrastructure, dependencies, vulnerabilities, and indicators, and by assessing likely cascade effects across sectors to produce commander-usable civil assessments that support prioritisation and mitigation. CMI provides the coordination function by maintaining liaison with civil authorities and essential service providers, facilitating information exchange and deconfliction, and aligning military activity with civilian continuity measures where authorised. Together, CFI and CMI translate civil realities into operational priorities and coordinated action.

The war in Ukraine has demonstrated that resilience functions as an operational enabler, not merely a matter of national civil policy, and that forces require established mechanisms to assist decision-makers in understanding and managing civil dependencies quickly;
practically, this means:

(1) **Confirm** the 7BLR is used as a common planning reference for high-intensity conflict scenarios and is embedded in relevant planning products, exercises, and assessment processes.

(2) **Verify** that standing CFI/CMI interfaces with ministries, regulators, utilities, Emergency Services, and key private-sector operators are established and routinely used in peacetime, not only activated ad hoc in crisis.

(3) **Validate** that minimum civil information requirements and indicators are defined, agreed, and can be shared rapidly and securely.

(4) **Test and refine** deconfliction procedures for scarce enablers and for access/movement to restore essential services under threat, including decision rights and escalation pathways.

(5) **Review** national and host-nation support plans against an assumption of persistent, multi-domain disruption that will stress restoration capacity and generate cross-sector cascades, and update gaps identified through exercises or real-world incidents.

Chapter 3 – The Financial Dimension of CIMIC Functions

3.1 Situation

This chapter situates Ukraine's wartime economy within a long-run macro-fiscal trajectory and connects that trajectory to the instruments, actors, and operational logic that enable CIMIC effects. It clarifies how macro-level financing flows, donor conditionality, and market adaptation set the parameters within which civil–military cooperation and private-sector integration can produce stabilisation outcomes.

3.1.1 Finance

The Ukrainian economy from 2010 to 2025 passes through three distinct phases: a period of relative macroeconomic normalcy before 2014, the 2014–2021 period of hybrid conflict and structural volatility, and the post-2022 transition to full-scale wartime mobilisation. Nominal GDP is expected to reach around $209.7 billion in 2025, slightly exceeding the 2021 pre-war level. However, this recovery remains mainly nominal, driven by inflation dynamics, external financing, and the accounting treatment of defence outlays rather than a genuine return to pre-war productive capacity.[141] Actual output and tradable capacity remain significantly constrained by destroyed or degraded infrastructure, logistical challenges, and the displacement of human capital.

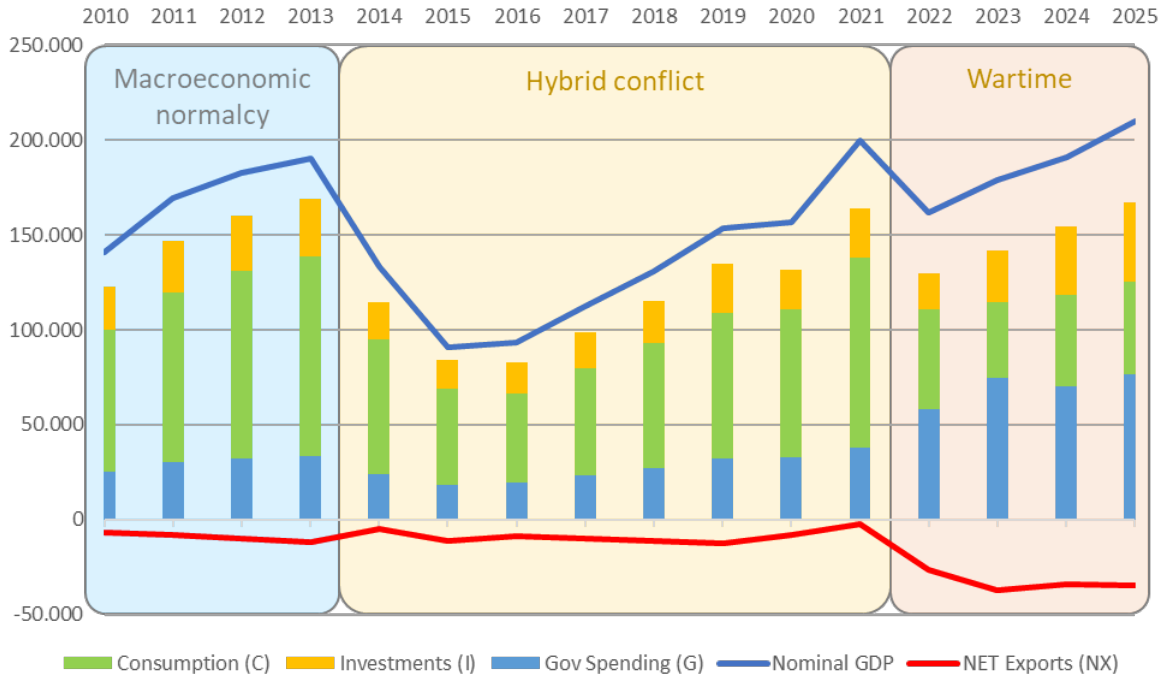

Figure 3 - Ukraine GDP Development (Mio US$)

The fiscal configuration represents a paradigmatic wartime state: the consolidated deficit expanded from an already elevated from 4% of GDP in 2021 to roughly 19% in 2023, with

[141] IMF. (2025).

projections around 21% in 2025 (excluding grants).[142] In absolute terms, this implies an annual financing gap of $40–45 billion, contingent on timely donor disbursements and the availability of concessional lending windows. Debt ratios continue to climb, with medium-term scenarios breaching 100% of GDP in the mid-2020s absent restructuring, exceptional grants, or windfall resources.[143]

The macroeconomic mechanics of the wartime economy are reflected in the expenditure breakdown of GDP and the external accounts. Net exports remain a consistent drag, driven by import-heavy defence, repairs, and humanitarian spending; current account deficits widen accordingly and are offset by official flows rather than market funding.[144] This state-dependency is neither accidental nor purely temporary: it is a deliberately engineered stabilisation architecture designed to maintain minimum state functionality and social resilience under prolonged kinetic pressure.

Official financing flows, principally the IMF's programme envelope, EU budget support via the Ukraine Facility, World Bank operations, and the European Bank for Reconstruction and Development (EBRD) investment platform, constitute the system's backbone. As of 2024–2025, the EU and Member States have extended multi-year budget support on the order of tens of billions of euros, while NATO Allies and partners collectively sustained large military and financial packages that shape macro-stability expectations.[145] The credibility of these flows is a core variable in sovereign risk, exchange rate pass-through, and inflation expectations. Any delay in tranche disbursement immediately transmits to domestic arrears, import compression, and project execution delays, including CIMIC-relevant works.

3.1.2 CIMIC Cooperation Effects

CIMIC acts as the operational interface that transforms sovereign-level commitments into localised stability effects. In practice, Multilateral Development Banks (MDBs) and EU-funded programmes restore critical services, electricity, water, heat, and transport in liberated or contested areas. Since 2022, the EBRD alone has approved over €8 billion for operations focusing on energy security, municipal services, transport fleets, and private-sector working capital, often delivered through risk-sharing instruments and sovereign-backed arrangements lines.[146] CIMIC elements facilitate physical access, sequencing, and security for these investments, and produce civil-environment assessments that donors depend on for fiduciary assurance and targeting.

Two roles are conceptually separate yet work together. First, CIMIC acts as an investment absorber, coordinating with utilities, authorities, and partners to ensure materials, equipment, and specialists reach key points in the network. Second, CIMIC provides detailed governance intelligence, comprehensive reports on damage, needs, local capacity, and corruption risks, which boost donor confidence in disbursements and condition the release of subsequent

[142] World Bank. (2025, October).
[143] Kyiv School of Economics. (2025, January).
[144] European Parliament. (2024).
[145] Delegation of the EU to the USA. (2025, August).
[146] EBRD. (2025, September).

tranches.[147] This dual role places CIMIC squarely within the accountability chain of the wartime fiscal-investment complex.

3.1.3 Private Sector Integration

The private sector is no longer a mere supplement to defence; it has become a key driver of innovation. Ukrainian firms and start-ups have accelerated defence innovation cycles for Intelligence, Surveillance, and Reconnaissance, Unmanned Aerial Systems, Electronic Warfare, logistics, and cyber to encompass weeks or months, a pace that conflicts with traditional acquisition timelines. The doctrinal implication for CIMIC interaction is significant: liaison and outreach are inadequate when the focus for capability development resides within agile, commercially funded ecosystems.[148]

NATO logistics and contracting doctrine (e.g., AJP-4.6) already recognises the importance of coordination across civilian contractors, financial controllers, and military clients, yet LSCO conditions in Ukraine show that purely *ad hoc* contracting creates frictions, misaligned incentives, fragmented accountability, and latency at critical nodes.[149] To operationalise resilience, pre-negotiated basic ordering agreements (BOAs), standing service contracts for transport and energy, and legal priority rules for military use of civilian infrastructure are necessary, in line with the Baseline Requirements for national resilience.[150]

3.2 Assessment

Moving from description to analysis, this section assesses structural vulnerabilities and adaptive capacities that determine whether macro-financing results in lasting resilience. It highlights debt sustainability, conditionality compliance, institutional capacity, market signalling, and the practical challenges posed by deep private-sector integration.

3.2.1 Financial Vulnerabilities

The main vulnerability is numerical: a primary deficit in the mid-teens of GDP and an overall balance below –20% of GDP in 2025 suggest that domestic revenue cannot support core non-interest operations, let alone large-scale reconstruction.[151] When assessed on a grants-excluded basis, usual in IFI reporting to prevent non-contractual flows from affecting sustainability metrics, the structural gap becomes even clearer for investors and official creditors. [152] Three deeper fragilities emerge.

1. Reclassifying weapons systems and specific R&D under the 2008 System of National Accounts boosts measured gross fixed capital formation, making the investment share of GDP seem strong even when private greenfield formation remains subdued.[153]

[147] IMF & EU. Ukraine Facility and EFF programme documentation: conditions and tranches.
[148] CCOE. (2025, March).
[149] NATO. AJP-4.6: Allied Joint Doctrine for Logistics. (2025).
[150] NATO. Baseline Requirements for National Resilience. (2025).
[151] World Bank. (2025, October).
[152] IMF. (2025).
[153] United Nations et al. (SNA 2008). 2009/2014 updates.

Consequently, the investment signal is confused with defence recapitalisation and emergency infrastructure repair, making it harder to draw clear productivity conclusions.

2. Ongoing attacks on logistics and energy infrastructure disrupt domestic production and hinder efforts to substitute imports. Reconstruction work increases the demand for imported fuel, equipment, and materials. As a result, Ukraine's current account deficit requires external grants and highly concessional loans to prevent destabilising exchange rate depreciation and a surge in inflation. This reliance highlights the wartime risks and challenges to debt sustainability: with limited access to market finance, Ukraine's continued financing depends on ongoing confidence from creditors and donors.[154]

3. Foreign direct investment has not yet stabilised medium-term growth expectations. Country risk, insurance accessibility, and collateral frameworks limit market-term financing. The 2025 investment climate assessments show caution or a wait-and-see approach among many strategic investors despite the vibrancy of domestic defence tech.[155] Absent risk-sharing instruments and guarantees at scale, private capital will not close the sovereign balance-of-payments or budget gaps.

3.2.2 Financial Resilience of CIMIC

Despite these macro constraints, CIMIC demonstrates notable adaptive capacity across three key channels. First, its integration into official financing, especially EBRD municipal lines, EU Facility disbursements, and World Bank projects, offers an operational buffer because these instruments are multi-year, rules-based, and performance-conditioned. [156] Second, CIMIC's mission profile enables rapid reprioritisation of effort along critical infrastructure nodes (power, water, transport), adopting a "minimum viable services" approach that stabilises communities even under intermittent kinetic conditions. Crucially, CIMIC operates as the local "boots on the ground," serving as primary sensors that respond immediately to regional shocks. While UKR reports show that local governmental administrations are often unable to address the resulting dilemma effectively, direct CIMIC capabilities ensure the continuity of essential services. This requires funds to be readily and locally available for these CIMIC units to execute rapid response, bridging the critical gap between the shock and the arrival of broader governmental or international aid. Third, the governance-assurance function, monitoring, reporting, and facilitating audits, sustains donor confidence, which is essential for ongoing disbursements and tranche releases.[157]

However, resilience depends on conditions. Failing to meet reform milestones, such as Public Financial Management (PFM) consolidation, procurement transparency, anti-corruption measures, or State-Owned Enterprise governance, risks suspending tranches, which causes a pro-cyclical shock precisely when needs increase. Because CIMIC relies on the swift arrival

[154] European Parliament. (2024).
[155] U.S. Department of State. (2025).
[156] Delegation of the EU to the USA. (2025, August).
[157] European Parliament Briefing. (June 2024).

of materials, equipment, and service contractors, disruptions in financing result in immediate operational delays and heightened humanitarian burdens.

3.2.3 Private Sector Dilemmas

Deep private-sector integration introduces three dilemmas.

1. **Agility versus accountability:** the pace of commercial innovation can surpass procurement law and audit trails, leaving programmes vulnerable to ex-post disputes or clawbacks.
2. **Centralisation versus market recovery:** a wartime state necessarily centralises resource allocation, but prolonged dominance can hinder entrepreneurial recovery in non-defence sectors.
3. **Efficiency versus equity:** Rapid contracting often benefits firms with logistics and capital access, potentially overlooking smaller local suppliers vital for social cohesion.

Doctrinally, the answer is not to reduce private-sector engagement but to discipline it: pre-approved BOAs, standard service-level agreements for emergency works, sandboxed innovation corridors for dual-use tech, and clear liability rules for military access to commercial networks. These are consistent with NATO's Baseline Requirements and contemporary civil-preparedness doctrine, but they require administrative depth and legal readiness in peacetime to be credible in crisis.

3.3 Hypothetical Analysis

The scenario below is not a prediction; it is a hypothetical stressor designed to illustrate path dependencies and decision points. It traces primary shocks through macro-fiscal channels into CIMIC operations, emphasising second-order effects necessary for resilience planning and policy sequencing.

3.3.1 Case Study – Financial Split

Suppose a geopolitical shock diverts official funding away from Ukraine for two to three quarters. The immediate macroeconomic signal is a shortfall in budget financing, followed by the build-up of arrears and procurement pauses. Because grants are non-contractual and political, markets would view announced packages as less credible until cash actually arrives, leading to pressure on the exchange rate and higher local funding costs.[158]

Operationally, CIMIC would face cascading effects. Priority projects such as power restoration and municipal transport would be delayed, weakening local confidence; procurement would revert to emergency procedures with less competition; donor fiduciary risk tolerance would decrease, making audit processes more stringent at a critical moment. Without MDB disbursements, CIMIC's role would narrow to liaison and assessment, with fewer tangible

[158] World Bank. (October 2025).

outputs in the civil sector environment.[159]

Second-order effects include a reversal in private-sector expectations. Suppliers would demand cash-on-delivery or shorter payment terms; insurance premiums would increase; and diaspora remittances might rise in the short term, but are unlikely to bridge the state's financing gap. The credibility of reform conditionality would be called into question as ministries prioritise execution over documentation, risking later sanctions or tranche cancellations.

3.4 Conclusion

This section combines macro-financial and institutional analysis to clarify how Ukraine's fiscal stability influences the civil environment in which CIMIC operates. The hypothetical external-financing shock demonstrates that even brief budget uncertainty quickly affects procurement cycles, municipal service delivery, and private-sector confidence, all of which directly affect CIMIC's capacity to produce civil effects.

For CIMIC, such volatility limits support and heightens the need for precise liaison, risk management, and coordination with authorities and private operators. Payment delays, stricter controls, and tighter supplier terms reduce flexibility and damage local trust, increasing CIMIC's role as coordinator rather than just project implementer. Macroeconomic instability acts as a non-kinetic risk, with financial disruptions causing service gaps, governance issues, and population vulnerabilities long before kinetic effects. CIMIC must use fiscal and supply-chain signals for early warning and be ready to address civil impacts arising from funding delays in sectors such as energy and transport. CIMIC's resilience depends on Ukraine's macro-financial stability.

During fiscal stress, CIMIC's key role is to maintain coherence among military needs, municipal governance, and private-sector continuity to prevent financial turbulence from causing operational issues or societal instability..

3.4.1 Financial Architecture and Macroeconomic Equilibrium

Ukraine's wartime economy exemplifies that financial resilience is fundamentally an institutional construct rather than an emergent market phenomenon. The synergistic deployment of instruments from the IMF, EU, World Bank, and EBRD has established a macro-fiscal shield capable of sustaining governmental functions, stabilising exchange rate expectations, and supporting critical public expenditures amid ongoing kinetic pressures.

The following figure offers a comparative overview of the main financial commitments already mentioned by major stakeholders.

[159] European Parliament Briefing. (June 2024).

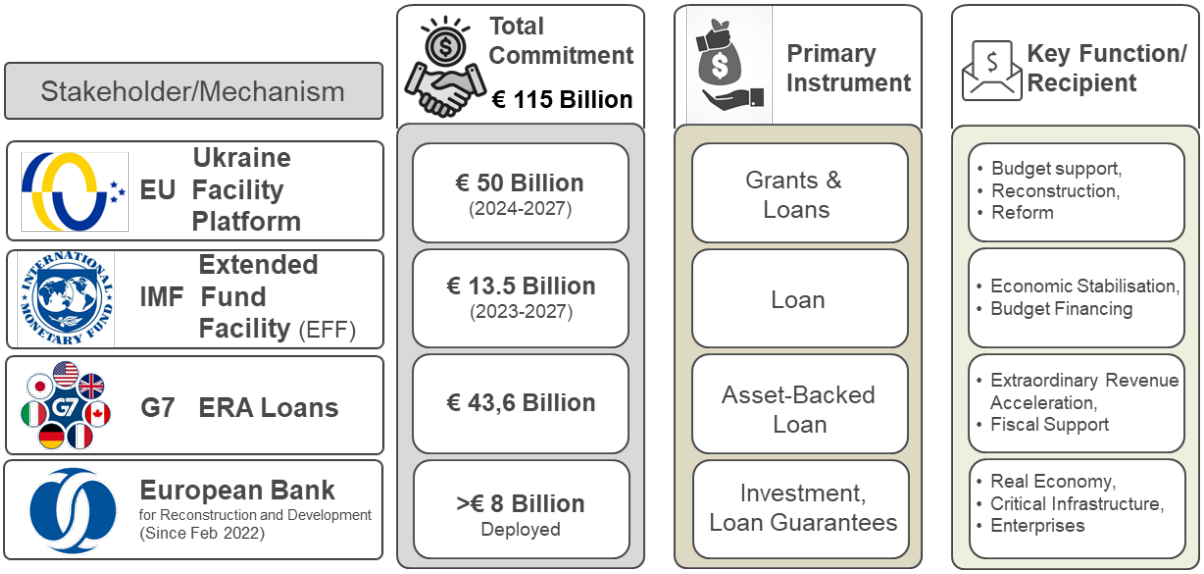

Figure 4 - Stakeholder Commitment to Ukraine

However, this framework inherently engenders an asymmetry in which fiscal solvency and external stability are contingent upon sustained international commitment rather than domestic capital formation. Consequently, the equilibrium established is politically maintained, externally financed, and inherently vulnerable to potential donor fatigue. This analysis underscores that, in large-scale conflicts, macroeconomic continuity can be preserved in the absence of a return to market normalcy, provided there is deliberate international coordination and institutionalised confidence.

3.4.2 CIMIC as a Governance and Resilience Interface

CIMIC has evolved from a nominal liaison mechanism to a strategic governance interface that facilitates coordination among donors, Ukrainian government ministries, and local communities. Its dual function, namely, mobilising investments and ensuring fiduciary accountability, upholds transparency and accountability across both financial and operational domains. By translating donor contributions into empirically measurable field outcomes, CIMIC operationalises and reinforces the legitimacy of international aid efforts. Its capacity to provide comprehensive reporting, transparency, and continuous monitoring renders it indispensable for maintaining disbursement credibility. To deliver this reliably, selected CIMIC personnel require a basic understanding of finance, provided through a dedicated course. They also need access to a contracted reach-back capability to provide subject-matter expertise on fiduciary and disbursement issues.

Consequently, CIMIC functions not only as a stabilisation instrument but also as a structural component of governance, ensuring that macroeconomic financing effectively translates into tangible local recovery and development.

3.4.3 The Private Sector as a Strategic Enabler

Private sector engagement has become a critical determinant of Ukraine's adaptive capacity. Industrial responsiveness, dual-use technological innovations, and private-sector logistics collectively constitute a civil-industrial defence layer that complements governmental and military institutions. However, this dynamic introduces governance challenges, balancing rapid response with oversight, and wartime centralisation with post-conflict market revitalisation. The Ukrainian experience demonstrates that resilience cannot depend solely on public or donor funding; it necessitates an embedded private economy capable of innovation and ensuring service continuity amidst extreme uncertainty. From a doctrinal perspective, NATO and national frameworks must formalise this civil-industrial relationship through pre-arranged contractual mechanisms, risk-sharing arrangements, and explicit legal provisions governing the use of commercial infrastructure for military purposes.

3.4.4 Institutional Credibility and Future Stability

The sustainability of Ukraine's resilience framework fundamentally relies on institutional credibility. While macro-financial support secures immediate survival, long-term stability depends on the government's capacity to transition from external dependence to an autonomous fiscal and governance system. The continuation of donor support is directly correlated with tangible advancements in anti-corruption initiatives, procurement transparency, and administrative efficiency. Consequently, CIMIC's analytical and reporting functions assume strategic importance, functioning as early warning indicators for potential governance regressions and as evidentiary support for ongoing trust.

The Ukrainian case exemplifies that resilience in contemporary warfare extends beyond mere military capability or financial resources, emphasising the critical role of credible institutions in translating resources into legitimate, accountable outcomes.

Chapter 4 – CIMIC Capabilities of the Armed Forces of Ukraine

In this chapter, the reader may seek information about the overall strength and organisation of Ukraine's CIMIC forces. However, despite this interest, there are limitations to what can be covered in this open-source lessons-learned report. As previously mentioned, reported figures regarding the size and deployment of Ukrainian CIMIC personnel are unreliable, as are the available data on the extent of CIMIC-focused training completed by these personnel and the number of personnel trained. Due to the unreliability of public reporting, we will not present lessons for a broader audience. Nevertheless, as discussed further, we have proposed lessons emphasising the importance of establishing an independent J9 branch within the armed forces to improve CIMIC. When referencing force size and training figures, these should be considered approximate because of variations in definitions, timeframes, and training pathways. The lack of consolidated data on CIMIC-specific casualties, prisoners of war, and reassignments prevents translating training figures into a reliable estimate of available and active capacity; therefore, this chapter relies on best-effort triangulation.

To promote transparency and avoid false precision, the findings in Section 4.4 are based on a separate, survey-derived personnel profile obtained through a different research design and sampling methodology. These data are illustrative and indicative, not fully representative, and are neither harmonised with nor directly comparable to the force-volume figures presented in the broader Chapter 4 narrative.

4.1 Situation

The ongoing war between Ukraine and Russia has created a highly complex environment, requiring an agile and comprehensive CIMIC strategy. The scale of the war, especially since the full-scale invasion in 2022, has put the AFU at the forefront of a hybrid war.

The conflict has resulted in mass civilian suffering and destruction.

- **Displacement:** Since 2014, more than 11 million people have been displaced, as described in para 2.3 on page 20.[160]
- **Infrastructure Destruction:** Latest assessments indicated that roughly half of Ukraine's power generation capacity had been occupied, destroyed, or damaged, along with extensive damage to grid assets. Regarding overall war damage, the World Bank-led Fourth Rapid Damage and Needs Assessment estimated direct physical damage at nearly USD 176 billion as of 31 December 2024.[161]

[160] IOM Report. (2024, February 20).
[161] WBG. (2024, February 15).

Adaptations of the CIMIC Capabilities

Ukrainian CIMIC advanced rapidly from a small pilot project focused on liaison to a crucial strategic component integrated into the nation's humanitarian and security frameworks. This progress involved modernising the armed forces with support from NATO members, including material, doctrinal, and training assistance. Major changes include:

- **Alignment with NATO Standards:** CIMIC structures were formalised through governing documents, emphasising the integration of NATO best practices. Building on the foundation of over 300 Ukrainian personnel trained directly under NATO's CIMIC courses during the Hybrid conflict phase[162]. CIMIC's actual size in Ukraine is much larger, with over 2,500 personnel currently serving in CIMIC roles. However, the total number of personnel whose training was either provided or supported by NATO remains unclear. This uncertainty arises from the diverse training landscape, which includes various levels of education and operational requirements. Training is often delivered through bilateral agreements with individual NATO member states (such as the USA, Poland, and Germany), via NATO-supported Mobile Training Teams (MTT), or through Ukraine's national training programmes. This complex, multifaceted approach to education has been a necessary response to the significant increase in demand for CIMIC training over the past four years, reflecting the heightened need for effective civil-military interaction in the region. The primary reference for CIMIC in Ukraine is the *Doctrine on Civil-Military Cooperation* and the *Methodical Manual for the armed forces on CIMIC issues*.[163] based on NATO CIMIC doctrines, such as AJP-3.19.

- **Accelerated Learning:** The Ukrainian Armed Forces reduced the organisational lessons learned cycle from three months to one month.[164]

- **Functional Expansion:** CIMIC progressed from mere liaison to directly coordinating civil resistance, humanitarian logistics, and establishing Support Services for military personnel and their families, assisting in approximately 20 support efforts domains.[165]

4.2 From the big picture to the gradual level

Political Considerations

The National Defence Strategy (2017) emphasised civilian resilience and the goal of adopting NATO's CIMIC standards. Ukraine signed an agreement to join the NATO Partnership Interoperability Initiative in 2020. Ukraine also became a participant in the EU Civil Protection Mechanism (EUCPM) in April 2023. A notable adaptation was the decentralisation of governance and service delivery, where local governments (HROMADAS) maintained essential functions and engaged civil society.

[162] 2014 to 2022
[163] Yehor V. (2025, September).
[164] Rudnicki M., Drajewicz D. (2024), Volkov V. (2025).
[165] Valirenko, Y. (2025, February, 09).

Political Actions to Effects

- The Ukrainian Ministry of Defence issued a directive in 2023 to establish CIMIC teams within each operational command, shifting the approach from ad-hoc responses to a more structured system. This enabled a "whole-of-society" mobilisation and bottom-up resilience.
- Joining the EUCPM enhanced international coordination for delivering vital aid, such as the over 155,000 tonnes channelled through the mechanism. This comprehensive approach tackles aggressions targeting civilian cohesion.

Political Aims

The main aims were to build national resilience and defence by promoting societal engagement, to counter the psychological and political aspects of warfare, and to align defence planning with Euro-Atlantic integration.

4.3 Comparison of Command Levels

The following table compares the command levels of NATO and the Ukrainian Armed Forces. It is crucial to recognise that, although Ukraine is progressing towards NATO standards, it does not use the same symbols for its formations and instead often employs distinctive insignia and patches.

NATO Understanding and Structure		Ukrainian Armed Forces Structure
At the highest command level, the alliance sets its main military goals to achieve its objectives, focusing on the "what" and "why" of a campaign. In NATO, this is managed by the Supreme Allied Commander Europe (SACEUR) and national general staffs.	**Strategic** Setting overarching military goals	This level is led by the President of Ukraine, the Supreme Commander-in-Chief, and the General Staff of the Armed Forces. They oversee national defence strategy, resource allocation, and military planning.
This level effectively links strategic goals with tactical actions, emphasizing the planning and execution of campaigns in a theatre of war to achieve significant objectives. Typically, a NATO Joint Force Command leads these efforts, coordinating the activities of multiple corps or divisions to ensure success.	**Operational** Planning and conducting major campaigns 	The Ukrainian military has evolved since 2022 from a rigid structure of four Operational Commands to a more flexible system. It now uses temporary commands for specific fronts, called Operational-Strategic Groups (OSGs) and Operational-Tactical Groups (OTGs), and is establishing Army Corps to improve large-scale offensive management.
This level is where battles are fought and engagements occur. It involves the direct deployment of units to achieve specific, localized objectives. The primary units at this level are brigades, which focus on immediate combat actions.	**Tactical** Direct employment of units in combat 	The brigade is vital to the Ukrainian Ground Forces and other military branches! These self-sufficient, combined-arms units are designed for autonomy, reflecting a dynamic "mission command" philosophy that encourages quick decision-making on the battlefield, enhancing effectiveness and adaptability.

Figure 5 - Command Level Comparison[166]

[166] AJP 01, (2022, December).

The CIMIC units are fully integrated within the military command structures, reflecting their purpose at the respective level of command.

The following section summarises how CIMIC supports the AFU at all levels. It traces a bottom-up logic: tactical tasks generate operational effects, which in turn reinforce strategic effects related to resilience, legitimacy, and the sustainment of military operations. The numbering of effects, actions, and tasks is retained to enable cross-referencing with planning documents and the annex in the back matter, which presents the same items in a Comprehensive Operations Planning Directive (COPD)-style format.

Strategic

Strategic CIMIC Aims

CIMIC aims to enhance the unity and resilience of the civilian population, rebuild public trust in the AFU, and make civil–military collaboration a central element of national resilience and deterrence. It also strives to achieve interoperability with NATO and partner countries through aligned doctrines, training, and command structures. Additionally, it focuses on maintaining combat readiness by supporting service members and their families, improving civil logistics, and integrating human security into defence policies.

These strategic aims are achieved only if the effects described below are generated and maintained.

Strategic Effects

1. Strengthened strategic resilience.
2. Enhanced strategic communication and legitimacy.
3. Enabled interoperability with allies and partners.
4. Integrated national resistance and civil defence.
5. Supported strategic protection of civilians.
6. Improved force morale and social resilience.
7. Optimised strategic logistics and host-nation support.
8. Strengthened human security as a factor that supports military effectiveness.

Strategic CIMIC Actions

(Numbering linked to the Effect as above; therefore, duplications by intent)

1.1 Embed CIMIC within the AFU and link it to national policies and NATO-aligned doctrine to ensure a coherent whole-of-nation approach to defence and resilience.[167]

1.2 Integrate TDF and local volunteer groups into the national CIMIC system so local initiatives reinforce national defence strategies and the concept of national resistance.

1.3 Coordinate policies to protect civilians, including evacuation, humanitarian demining, and strengthening the Unified Civil Protection System under martial law.

2.1 Integrate CIMIC into strategic communication to support transparent, credible engagement with domestic and international audiences.

2.2 Operate the CIMIC Directorate (J9) as the hub for AFU engagement with NMAs, supporting the legitimacy of operations.

3.1 Align national CIMIC doctrine with NATO guidelines and have the J9 Directorate serve as the primary interface with NATO institutions, COEs, and support mechanisms to harmonise procedures.[168]

4.1 Integrate TDF and local volunteers into the CIMIC system to align resistance activities with national defence and civil protection.

4.2 Reinforce the Unified Civil Protection System under martial law to ensure coordinated civil defence measures across all levels.

5.1 Offer doctrinal guidance and planning to minimise civilian harm, aid humanitarian efforts, facilitate the return of displaced persons, and locate missing personnel.

5.2 Coordinate evacuation policies and prioritise humanitarian demining to mitigate civilian risk in contested areas.

6.1 Support humanitarian efforts and planning for the return of displaced persons to maintain societal cohesion and demonstrate commitment to the population.

6.2 Use CIMIC-led engagement with communities to sustain trust between the AFU, authorities, and civilians, indirectly supporting force morale.

7.1 Operate the J9 Directorate as a hub coordinating with NMAs to access civilian resources and services supporting host-nation efforts.

8.1 Coordinate efforts to protect civilians, restore essential services, and address missing persons as part of CIMIC's core mandate, reinforcing human security as a strategic enabler of military operations[169].

[167] Valirenko, Y. (2025, February, 09).

[168] The partnership with NATO's CCOE enhanced CIMIC operational efficiency, evidenced by over 500 (including the 300 during the hybrid conflict phase) Ukrainian personnel trained by the CCOE or Mobile Training Teams (MTTs) from 2019 to 2024

[169] CIMIC efforts shifted the focus from "support to the civil environment" (2014) via "support to the force" (2022) to CFI and CMI (see Back matter or AJP 3.19. Edition B, Version 1).

Operational

Operational CIMIC Aims

At the operational level, CIMIC aims to translate strategic intent into theatre-specific CIMIC campaigns that protect civilians and support military objectives. It seeks to ensure effective coordination among military forces and NMAs, maintain the continuity of essential services and governance in contested areas, and produce the operational effects and decisive conditions mentioned above. These aims rely directly on the consistent implementation of tactical CIMIC actions and tasks.

CIMIC Decisive Conditions

1.0 Key routes, infrastructure, and economic functions remain accessible, secure, and quickly restored after disruptions. This ensures the movement of forces, logistics, humanitarian actors, and the sustainment of civilian life and military activity across the area of operations.

2.0 Local populations collaborate with authorities and armed forces, sharing information, following safety measures, and supporting security plans, while operations align with IHL and are generally viewed as legitimate locally and internationally.

3.0 CIMIC capabilities are integrated into operational commands, enabling planning, coordination, and assessment across the theatre, supported by personnel, materiel, and services mobilised through CIMIC cooperation and volunteers.

4.0 Civil governance structures continue to operate, or are re-established, in contested and newly liberated areas, delivering basic administration and public services under military security conditions.

5.0 Military units and civilian populations are protected from avoidable harm to a level that allows secure basing, manoeuvre, and sustainment of operations.

6.0 Service personnel and their families have access to effective legal, social, and medical support services, which reduces non-operational stress and enhances readiness and retention.

7.0 Additional logistics and service capacities from NMAs are available and can be activated swiftly in support of operational requirements.

8.0 Civilian harm mitigation and Human Security are operationalised through planning, rehearsal, reporting, and CIMIC mechanisms, including the ability to recognise and appropriately refer cross-cutting protection risks, without compromising operational tempo or freedom of movement.

CIMIC Effects

1.1 Enabled freedom of movement.

1.2 Preserved critical infrastructure and economic function.

2.1 Gained civilian cooperation.

2.2 Maintained legitimacy and compliance with international humanitarian law.

3.1 Enhanced CIMIC capability.

3.2 Enhanced force generation and sustainment.

4.1 Supported civil governance.

5.1 Ensured force protection.

6.1 Enhanced personnel and family support.

7.1 Expanded civil–military logistics and services networks.

8.1 Civilian harm mitigation and human security embedded in operations.

CIMIC Actions

1.1.1 Facilitates repair of critical roads and bridges by coordinating with NMAs to support local livelihoods and movement of forces.

1.1.2 Planning and coordinating humanitarian demining and mine-risk education with the National Mine Action Authority and NMAs, focusing on transport routes, agricultural land, and residential areas.

1.2.1 Coordinate infrastructure restoration with the national electricity transmission operator, local utilities, and international donors to restore the grid and maintain essential services.[170][171]

1.2.2 Coordinate protection of critical infrastructure by liaising with operators and authorities to maintain civilian life and operations.

2.1.1 Conduct information activities and engage local populations to support friendly operations, shape the information environment, and encourage civilian cooperation and safety compliance.[172]

2.2.1 Facilitates recovery, repatriation, and legal management of soldiers' bodies, helping families find closure in conflict.

3.1.1 Establish and deploy dedicated CIMIC units across all regional and selected operational military commands to enhance CIMIC interaction planning and execution.

3.2.1 Coordination of personnel deployment and essential equipment supply for CIMIC-led voluntary aid to AFU, often working with TDF and local volunteers.

[170] CIMIC units led substantial infrastructure reconstruction, managing the repair of over 20,000 km of roads and bridges.

[171] By the end of 2023, over 300 substations and 2,000 km of power lines had been repaired.

[172] Psychological Operations (PsyOps) distributed over 5 million leaflets in Eastern Ukraine by April 2023.

4.1.1 Establish CIMIC administrations at various levels to support community livelihoods when governance structures are unable to operate.

5.1.1 Evacuation of civilians from risky urban areas and coordinating safe passage with NMAs to protect non-combatants and facilitate humanitarian access.[173]

5.1.2 Synchronisation of protection-of-civilians measures with CIMIC activities in operational plans, covering early-warning systems, evacuation routes, shelter management, and support for IDPs.

6.1.1 Establish and provide support services for military personnel and families within the CIMIC system, including legal, social, and medical consultations at all levels.

6.1.2 Development of training courses for support-service specialists under the CIMIC directorate, focusing on engaging with communities and partners to offer tailored solutions for service members and families.

7.1.1 Coordinate logistics, medical support, security, emergency, and volunteer services to align civil capabilities with operational needs in transport, shelter, and medical aid.

7.1.2 Identify and negotiate the use of local transport, storage, and repair facilities via cooperation memoranda with municipalities, civil society, and private actors to support force movement and sustainment.

8.1.1 Integrating civilian harm mitigation and civilian protection into planning, orders, and rehearsals via CIMIC-led groups and liaising with humanitarian actors.

8.1.2 Collection, analysis, and reporting of data on Cross-Cutting Topics (CCTs) violations and damage to civilian objects to inform command decisions, targeting reviews, and assessments.

8.1.3 Set up clear reporting and referral pathways with authorities and protection actors for protection incidents, ensuring early warning, survivor safety, and sensitive handling.

Tactical

Tactical CIMIC Aims

At the tactical level, CIMIC activities provide aid and protection to civilians, support military units with welfare and logistics to ease civilian relations, deliver accurate civilian and infrastructure insights, and foster trust among armed forces, TDF, authorities, and locals. When consistent, they bolster Ukraine's resilience, legitimacy, and long-term defence sustainability.

CIMIC Actions

1.1.2-2 Support mine-risk education and safety briefings for local communities, especially children, farmers, displaced persons, in cooperation with mine-action operators and the Red Cross.

[173] CIMIC teams evacuated over 100,000 civilians from Mariupol in May 2022.

1.1.2-1 Coordinate with emergency services to clear explosive remnants of war and repair critical infrastructure such as power, water, hospitals, and schools.

1.2.1-1 Identification and assessment of critical civil infrastructure essential for local government and community livelihoods, prioritising protection and repair requests.

1.2.2-1 Conduct rapid civil-damage assessments after strikes or ground operations to guide repairs, demining, and humanitarian aid.

2.1.1-1 Disseminates public info via media, loudspeakers, and social media about safety, evacuation, curfew, and return conditions.

2.2.1-1 Embedding of CIMIC personnel within manoeuvre units to organise and conduct search and repatriation activities in coordination with forensic and legal authorities.

2.2.1-2 Establish and maintain communication channels with military families about missing and killed personnel to provide timely, accurate updates.

3.1.1-1 Embedding of CIMIC personnel within manoeuvre units to facilitate humanitarian operations and provide immediate CIMIC liaison at all tactical levels.

3.1.1-2 Reporting on the civilian environment and providing regular situational awareness updates to commanders, including trends in civilian casualties, displacement patterns, and the status of critical infrastructure.

4.1.1-1 Establish and run humanitarian hubs that deliver essential aid, food, water, medicines, and hygiene supplies to local communities, especially vulnerable groups.

4.1.1-2 Assist internally displaced persons at transit hubs by coordinating with authorities, volunteers, and agencies for shelter, transport, and basic services.

5.1.1-1 Assist in evacuating non-combatants and establishing safe havens and assembly points with CIMIC and local authorities.

5.1.1-2 Coordinate safe passage and evacuation routes with NMAs and border authorities, including cross-border transfers of vulnerable civilians when needed.

6.1.1-1 Set up walk-in contact points and hotlines at all tactical levels for CIMIC and support staff to receive and refer service member and family requests.

6.1.1-2 Conduct outreach visits to rest area units to identify welfare, family, and administrative issues affecting combat effectiveness and relay them to support services for resolution.

7.1.1-1 Liaise with transport providers, repair workshops, hotels, and medical facilities to secure capacity for military convoys, vehicle maintenance, and unit accommodation.

7.1.1-2 Maintain an updated overview of civilian capacities, transport, fuel, food, shelter, and medical services in the area to aid logistics planning and crisis response.

8.1.1-1 Briefing commanders and troops on civilian presence, protected objects, and harm-mitigation measures before operations, using CIMIC assessments and civil liaison actors.

8.1.1-2 Deploy CIMIC teams to frontline areas to monitor civilian impact, assist evacuations, and coordinate responses with NMAs.

CIMIC Tasks

1.1.2-3 Coordinate with local police and medical teams to clear explosive remnants and repair vital infrastructure, prioritising routes used by ambulances and humanitarian convoys.

2.1.1-2 Disseminate public service announcements to inform about safety rules, evacuation, return conditions, and establish communication channels with community reps.

2.1.1-3 Coordinate with international NGOs to distribute and monitor humanitarian aid, avoiding overlap or gaps in assistance.

3.1.1-3 Conduct joint patrols with TDF and local authorities to reassure the population and identify emerging humanitarian issues and risks.

4.1.1-3 Establish and operate humanitarian distribution hubs, coordinating NMAs to provide hot meals, water, and essential supplies to affected areas' populations.

5.1.1-3 Support for manoeuvre units evacuating non-combatants, including establishing and securing safe havens in coordination with CIMIC and local authorities.

6.1.2-1 Register cases needing legal, social, or medical support for service personnel or families, coordinating with NMAs for timely assistance and follow-up.

7.1.2-1 Arrangement of emergency access to buses, trucks, and fuel stations from civil partners for rapid redeployment or reinforcement.

8.1.2-1 Conduct rapid post-strike assessments of civilian harm, recording casualties and damage, and transmit findings through civilian harm-mitigation channels to adapt tactics.

4.4 AFU Profile of CIMIC Personnel

This chapter draws exclusively on the study's findings[174] “Civil-Military Cooperation in Action: Ukraine’s CIMIC Officers at the Heart of Protection of Civilians”. **It does not present the results of a comprehensive survey of all CIMIC personnel within the AFU and the TDF**. Consequently, the observations and interpretations in this chapter should be understood as illustrative and indicative rather than statistically representative of the entire CIMIC community. Every citation in this chapter is taken from this study.

Demographics and Military Status

The study states that women account for roughly 8% of AFU personnel, about 70,000 out of 900,000, and are overrepresented among CIMIC officers compared to other branches. This is likely linked to AFU policies that prioritise interaction with the civilian population irrespective of gender, which makes female officers particularly valuable for engagement and trust-building. The age distribution of CIMIC officers broadly mirrors the demographic profile of the Ukrainian population affected by the war, indicating that CIMIC attracts officers at different stages of their careers and relies on a mix of practical experience and strong interpersonal skills. However, in the absence of a defined CIMIC career path, many officers must rotate in and out of CIMIC appointments to maintain their overall career progression, which can undermine continuity and the long-term development of specialised expertise. Research on CIMIC practitioners at brigade and battalion levels included participants from higher operational tiers. The sample consisted of 80 soldiers.[175] The presence of non-officer personnel in CIMIC roles, typically reserved for officers, may suggest a shortage of qualified officers in this speciality.

Operational and Service Context

A significant 61% of respondents reported serving as CIMIC officers for less than a year, while 39% had completed two or more years of service. This short tenure likely results from the need to rotate officers frequently due to a high operational tempo and increased casualty rates. One survey participant noted that rotation was a consequence of the broader challenge of "not being able to establish long-term cooperation with civilian communities." CIMIC activities primarily focus on civilian engagement, carried out at the tactical level by brigade- and battalion-level CIMIC groups. Accordingly, most respondents belonged to this category, with 80% serving in tactical-level CIMIC teams[176]. While these units also perform the full spectrum of CIMIC core activities, CFI and CMI to support mission accomplishment and military objectives, the emphasis in this chapter on civilian engagement reflects the specific focus and framing of the underlying study, as signalled by its title.

The presence of CIMIC officers in higher-level positions also plays an important role, especially for informing recommendations based on collective field experience. The selection process for CIMIC officers emphasised those with substantial frontline operational expertise. Analysis of their deployment locations reveals assignments across various Ukrainian frontline regions. Many officers served across multiple areas, demonstrating their extensive operational

[174] Civiliansinconflict. (2025, October).
[175] 1x OF-5, 4x OF-4, 11x OF-3, 24x OF-2, 23x OF-1, 17x ORs.
[176] The remaining 20% serve on the Operational level

backgrounds. Conversely, a smaller group lacked frontline experience, mainly serving in rear areas.

CIMIC Training

Since 2014, the AFU has developed an organic CIMIC training capability centred on the Central Directorate for CIMIC Cooperation in the General Staff, including a dedicated military occupational speciality, specialised courses within the national military higher education system, unit-level training, Joint CIMIC Centres, and NATO/partner support. However, the CIVIC survey reveals most CIMIC officers began their duties without formal training—about two-thirds learned mainly through practical experience, highlighting a gap between institutional provisions and operational realities. Respondents emphasised the need for systematic, accessible, and operational CIMIC education, including professional courses, workshops, and lessons learned from conflicts, often in collaboration with external organisations. Given the focus on Protection of Civilians (PoC), any enhanced training should integrate PoC with core CIMIC functions.

There is consensus that negotiation and communication skills are vital for effective civilian engagement and should be central to training. Additionally, CIMIC's role in military planning and support, beyond civilian interactions, must be addressed. External organisations like CIVIC could assist with workshops, especially given resource constraints and urgent deployment needs, as many officers only received training after deployment.

The CIVIC study targets PoC, aligns with AFU doctrinal definitions, and focuses on civilian harm, threats, and mitigation practices rather than broader human security metrics. Since protecting civilians closely relates to IHL, officers need solid IHL training; only about one-third reported receiving it from sources such as the ICRC or military trainers, while two-thirds had none. Some officers received PoC training from external organisations, but the majority lacked it, underscoring the need for broader education. Variations in training methods across institutions influence officers' awareness of PoC, affecting their ability to recognise and implement PoC-specific measures.

Evidence from the survey suggests that dedicated PoC courses and training have a positive effect on CIMIC activities related to civilian protection, but also that the concept is not yet fully understood or consistently prioritised across the force. In particular, limited awareness among some senior commanders about the scope and value of PoC-related tasks constrains the development of a genuinely PoC-centred mindset in planning and execution. This underlines the need for targeted, command-level and CIMIC-specific training that embeds PoC, together with IHL and the full range of CIMIC core functions, into routine education, exercises, and operational procedures, rather than treating it as an optional or ad hoc add-on.

4.5 Challenges, Gaps and Nuances in the CIMIC Framework

While Ukraine's CIMIC system has demonstrated its vital role in strengthening the nation's resilience, it still faces significant challenges, many arising from remnants of post-Soviet inefficiencies.

- **The Absence of a Unified Legal Framework**

  An unresolved issue in this area is the absence of a clear legal framework specifically dedicated to CIMIC. NATO mainly manages CIMIC through its doctrine (AJP-3.19), but approaches vary significantly between nations. Only a few allies, Finland, Germany, Norway and Sweden, have incorporated CIMIC into their broader total-defence or comprehensive-security strategies, sometimes without explicitly using the term "CIMIC". In Ukraine, this gap means that CIMIC's increasing responsibilities, such as civil defence, supporting civil authorities, building psychological resilience, and post-conflict recovery, are only partly regulated and lack proper integration. As a result, coordination with civilian stakeholders remains fragmented, hindering systematic, long-term planning akin to those in more advanced total-defence models.[177]

- **Structural Inefficiencies and Post-Soviet Legacy**

  At independence, Ukraine inherited a large Soviet military, including five ground armies, four air armies, an air-defence army, and extensive equipment, making it one of the world's largest on paper. However, its bloated, Cold War-era structure was costly to maintain and poorly suited to Ukraine's security needs, diverting resources from effective reform.[178] Centralised command, sprawling supply networks, and bureaucratic delays slowed technological progress. Despite overall stagnation, Ukraine developed a NATO-standard CIMIC capacity by 2020, demonstrating reform efforts and dedication to Euro-Atlantic integration, although modernisation lagged[179]. Before 2014, underfunding led to outdated equipment; despite later increased expenditure, macroeconomic challenges and corruption constrained reforms, hindering modernisation efforts. The military reform before the 2022 invasion sought to address structural inefficiencies such as redundant hierarchies and duplicated supply chains.[180] Although progress in CIMIC indicates strides toward Euro-Atlantic ties, ongoing economic instability and chronic underfunding continue to restrict advancement. These issues create an imbalance between military requirements and available resources, putting strain on the state[181].

[177] Valirenko, Y. (2025, February 09).
[178] Olynyk, S. (1997, Spring).
[179] Bondar, K. (2025, January 13).
[180] Sanders, D. (2023, June 04).
[181] Grytsenko, A. (2000).

- **Resource Limitations and the Role of International Aid**

  Despite substantial backing from NATO, nations and NGOs/IOs, CIMIC units and the broader Ukrainian military continue to contend with significant resource shortages. While their reliance on international and volunteer aid is essential, it also introduces a potential vulnerability should those sources of funding or personnel decrease. The dependence on foreign assistance further underscores the magnitude of the ongoing challenge, as the total damage to infrastructure alone is estimated at nearly $155 billion, almost equal to Ukraine's 2022 GDP.[182]

4.6 Conclusion

The AFU have significantly improved their CIMIC capabilities, establishing the function as a vital component of the national strategy that adopts a "whole-of-society" approach to defence. This development shows that resilience is fundamentally "built in people". CIMIC has become a crucial part of Ukraine's preparedness, ensuring seamless integration between military and civilian sectors at all command levels.

The experience of Ukraine offers vital insights for other nations considering a "total defence" approach. It underscores the significance of a national security strategy that fully integrates both military and civilian sectors, recognising that a military's effectiveness in modern warfare is closely linked to societal resilience. The future of Ukraine's CIMIC will depend on its ability to establish a formal relationship with civilian partners through a clear legal framework, while balancing the tension between its urgent manpower needs and the preservation of its essential volunteer network. By consistently implementing the following elements, this can be further developed.

- **Elevate and Institutionalise CIMIC:** It is crucial to enhance training, clarify legislation, and fully integrate CIMIC officers within military and regional authorities and structures at all levels. Despite a formal doctrine, the absence of a unified legal framework remains a strategic challenge, overly dependent on ad hoc personal relationships.
- **Foster technological agility and promote innovation:** by investing in the rapid deployment of dual-use technologies, including drones and artificial intelligence, for civil protection. An example of such technology is the "Mines Eye" system,[183] utilised for humanitarian demining.[184]

[182] Nivievskyi, O., Goriunov, D. (2024, March 15).
[183] Postup foundation, (n.d.).
[184] Bondar, K. (2025, January 13).

Chapter 5 – CIMIC Lessons Identified

At this point in the conflict, Ukraine's experiences offer essential insights for CIMIC and resilience efforts. To turn these lessons into practical capabilities and policies, this chapter adopts the DOTMLPF[185] framework, plus Interoperability. Each section emphasises Ukraine's key lessons on capability gaps, strengths, and needs. Building on these findings, Chapter 6 will present strategic conclusions and implications. Ukraine's experience underscores the importance of integrating CIMIC into planning to operate effectively in contested environments. NATO and partners can learn from Ukraine's civil–military response strategies, decentralisation, coordination, and reconstruction efforts. These Lessons are based on a comprehensive methodology that guarantees practical, lasting knowledge. They incorporate NATO doctrine, authoritative reports, open-source research, and direct observations from the AFU. This work is cross-verified against established publications from various contexts to ensure robust, capability-oriented insights for strategic planning and force development. The primary goal is to enhance resilience, mainly through a detailed civil environment assessment, including CIMIC mapping of infrastructure, vulnerabilities, and civil actors. Merging this data improves the prediction of adverse effects, strengthens resilience, and supports operational and political decision-making.

DOTMLPF

5.1 Doctrine

Ukraine incorporates CIMIC into its main joint frameworks. NATO's AJP-3.19 directs the General Staff's J9, integrating civil–military considerations early in planning and throughout command. CIMIC is crucial for resilience and defence, covering civil environment assessment, protection of civilian and cultural sites, support to authorities, humanitarian efforts, and the management of civilian-impact information. The Ukrainian situation features a contested civil environment and resilience gaps that impact military operations. CIMIC, integrated into planning and operations, uses structured CMI/CFI to transform civil assessments into outcomes like prioritisation, coordination, and support for key assets. Once considered a secondary activity, CIMIC now must be recognised as a vital joint function, fully integrated into planning and aligned with resilience standards to ensure operational success, especially in modern conflicts targeting societal resilience and civilian environments.

By elevating CIMIC to a central doctrinal role, Ukraine improves civil integration and resilience. NATO and allies should align CIMIC guidance with resilience and hybrid warfare strategies, ensuring mechanisms convert civil preparedness into clear tasks, authorities, and priorities at all command levels. Doctrine should also address mass-casualty management as a civil–military interaction, including interfaces with health authorities, emergency services, patient flow management, and governance when civilian and military treatment pathways converge under resource constraints.

[185] Doctrine, Organisation, Training, Materiel, Leadership, Personnel, Facilities

5.2 Organisation

Ukraine developed a multi-layered CIMIC system that links all levels with civilian authorities. CIMIC units in the AFU are vertically connected to the J9 Directorate and horizontally to civil administrations, with CIMIC Administrations and liaison officers coordinating military actions and civilian needs as needed. Decentralised arrangements allowed local authorities, TDF units, and volunteers to respond swiftly to crises such as attacks on energy infrastructure and internal displacement. Yet many municipalities lacked CIMIC structures, clear tasks, and formal mechanisms for information sharing, leading to improvised solutions under pressure.

Prior to the full-scale invasion in February 2022, despite progress since 2014, organisational structures and responsibilities for CIMIC at local and regional levels were inconsistent, with many municipalities lacking CIMIC nodes, liaison architectures, or procedures involving volunteers and private-sector actors. This deficiency highlighted the need for establishing formal governance and oversight frameworks, including standardised reporting, transparency, and coordination with authorities and donors. Building institutional credibility and implementing anti-corruption measures proved essential for securing public trust and external support. Additionally, early warning systems for governance issues and for responsible resource management are critical lessons for informing future CIMIC approaches.

Ukraine's robust CIMIC structures, liaison roles, and decentralised crisis-response mechanisms facilitate quicker support and improved coordination with authorities and volunteers. Their absence leads to slower, more fragmented responses. For NATO and partners, this demonstrates that organisational design, such as CIMIC nodes, clear roles, and the involvement of volunteers and the private sector, directly influences the speed and effectiveness of CIMIC support for resilience and recovery. Organisationally, it advocates for permanent CIMIC medical liaison arrangements (rather than ad hoc coordination) that can integrate casualty tracking, evacuation prioritisation, and hospital surge-capacity reporting across military and civilian systems, including the supporting legal and data-handling frameworks.

5.3 Training

Since 2014, Ukraine’s veterans have become familiar with local terrain, communities, and threats, translating this into civil–military solutions through CIMIC. NATO and bilateral training built capable units, including new TDF brigades. However, training gaps persisted: many commanders and staff lacked experience integrating CIMIC into large operations, while volunteers, municipal staff, and NGOs were unfamiliar with military planning, protection, and security, leading to duplicated efforts, uneven aid, and increased risks in contested areas.

Training and education programmes had not fully adapted to CIMIC in large-scale, multi-actor operations. CIMIC training mainly focused on tactical skills or narrow tasks, not comprehensive, scenario-based training involving multiple actors. Instruction on civil environment assessment, infrastructure security, cross-cutting topics, and information activities, especially for commanders, staff, and NMAs, was incomplete or unevenly implemented. Digital information management skills for CIMIC personnel had not yet been fully

institutionalised.

When combat experience and CIMIC advisers are effectively utilised, units rapidly identify solutions and bolster resilience. However, the absence of comprehensive, multi-actor, scenario-based CIMIC training results in coordination gaps, duplicated efforts, and inefficient aid, particularly in high-risk areas. This highlights that NATO and its partners must continuously strengthen CIMIC staff training and exercises by regularly reviewing, revising, and updating how civil environment analysis, interagency coordination, infrastructure and data security, and digital data management are addressed, while systematically involving the military, government, emergency services, and civilians.

Additionally, training should include regular CIMIC rehearsals for mass-casualty coordination, emphasising information-sharing procedures, patient-flow management, and decision-making under conditions of scarcity. Where feasible, exercise design should involve civilian stakeholders, such as emergency medical services, hospitals, and relevant ministries, to validate assumptions and test coordination mechanisms under stress. Training programs should clearly cover Human Security and PoC-relevant CCTs, including practical drills on ethical information handling, do-no-harm engagement, and referral processes. Exercises used to validate and assess current plans should assess how CIMIC teams recognise early warning signs, report without re-traumatising, and coordinate with national authorities and humanitarian actors while maintaining security and operational freedom.

5.4 Materiel

Since the full-scale invasion, Ukrainian CIMIC units supported civilian areas in attacked zones by providing vehicles, tools, generators, communications equipment, medical supplies, and shelters to maintain civil services. This helped prevent societal collapse, uncontrolled population movements, and loss of legitimacy that could undermine military goals. The experience demonstrated that sustaining civil services in prolonged, high-intensity conflict requires integrating scalable materiel support into military planning and logistics, moving beyond viewing such support as merely humanitarian.

Pre-war methods treated civil support as ad hoc, resulting in limited stockpiles, weak dual-use capabilities, and underdeveloped logistics and information systems, which forced reliance on improvisation during large-scale attacks. Organized support, however, maintains services, stabilizes communities, and reinforces state legitimacy, aiding military success and resilience. Achieving this requires ample dual-use equipment, large scalable stockpiles, clear logistics, tracking systems, and resilient infrastructure for civil and military needs.

The operational need to prevent societal disruption and loss of confidence also demands a standardised set of equipment and structures for CIMIC units, including reliable communication devices and IT systems with redundant power and communication capabilities, as well as specialised vehicles. Ukrainian CIMIC units frequently utilise specialised armoured personnel carriers or ruggedised minibuses as mobile offices, equipped with integrated satellite communication terminals, multi-channel encrypted radio systems, and independent power supplies to facilitate seamless coordination in high-risk environments. To ensure the functional

integration at all levels, particularly at Brigade HQs, these elements, including precise logistics, robust tracking systems, and standardised Order of Battle structures, are already established for many NATO force elements. An assessment should be made regarding their potential extension to CIMIC units to determine whether NATO and Allies could systematically integrate civil support materiel into planning, capabilities, and logistics to enhance operational effectiveness and resilience.

5.5 Leadership

Leadership underpins Ukraine's resilience by adopting NATO-style mission command and empowering NCOs to make quicker decisions and foster flexibility. This cultural shift affected CIMIC: commanders now depend more on CIMIC advisers to grasp the civil environment, foresee effects, and maintain legitimacy. Still, the shift from traditional to mission command isn't complete, as some leaders hesitate to delegate authority or fully integrate civil factors and CIMIC advice into their planning. Leadership development and career paths traditionally focused on command and military factors. Civil–military considerations, resilience, and information effects were often overlooked in leadership education and doctrine. Consequently, some commanders do not see CIMIC as a joint function, and civil–military skills are not yet universally recognised as essential leadership competencies.

Where mission command and CIMIC are fully embraced, units show higher adaptability, better anticipate civil effects, and strengthen local legitimacy, boosting combat efficiency, resilience, and information advantage. When the shift is incomplete, opportunities to leverage CIMIC are missed, and decisions may overlook civil dynamics and legitimacy risks. For NATO and Allies, this emphasises the need to embed CIMIC and resilience into leadership training, doctrine, and evaluation, and to formally recognise civil–military competence as a key leadership requirement.

5.6 Personnel

At the start of the 2022 invasion, Ukraine had large reserves with hundreds of thousands of mobilisable personnel. However, recruiting and retaining specialised CIMIC staff was difficult. Demand for officers and NCOs with operational credibility and civilian-sector knowledge exceeded availability. Effective CIMIC needs a mix of full-time military experts, reservists with civilian skills, and specialists in civil administration, reconstruction, healthcare, agriculture, water management, logistics, and analysis. It also showed that a professional force, including a modern NCO corps, is vital for sustaining mission command and civil–military interaction.

Personnel systems and force-planning models did not fully meet CIMIC's specific needs. Career paths and competency profiles were poorly defined, and mechanisms to identify and mobilise civilian experts were underdeveloped. High demand for experienced officers and NCOs in combat roles limited the availability of CIMIC, leading to staff shortages. Personnel gaps limited CIMIC at all levels, complicating civil–military interfaces, local governance, and the utilisation of reserves for community support. Allies and partners should therefore define CIMIC career paths, develop civilian expertise, and train reserves to support communities within an integrated resilience framework.

5.7 Facilities

In Ukraine, CIMIC units have coordinated the use of schools, sports halls, and public buildings as shelters and service points, while suitable logistics hubs and other authorised facilities have been designated for CIMIC command posts and storage. Medical facilities have served only as shelters and treatment centres for the injured and wounded, thereby adhering to the Geneva Convention. When pre-agreed plans were in place, these facilities could be quickly repurposed during evacuations and recovery. Systematic Russian targeting emphasised the need for protection through dispersion, redundancy, and fortification. CIMIC mapped key assets, advised on protection, and integrated them into government and service continuity plans.

Before the war, civil–military planning and CIMIC structures weren't fully aware of infrastructure inventories or continuity plans. Responsibilities for identifying, protecting, and repurposing facilities were unclear, and protocols for civil–military use of key sites weren't always pre-defined. This led to variability in how quickly facilities could be mobilised and protected during attacks. Facilities that were identified and mapped in civil–military plans helped Ukraine respond quickly to attacks, provide shelter, and maintain governance. When integration was weaker, response times slowed, protection was less effective, and civilian risks increased. NATO and Allies should link CIMIC planning to infrastructure inventories, establish joint processes for critical facilities, and prioritise their protection in resilience plans.

5.8 Interoperability

Ukraine’s resilience has been strengthened through improved interoperability with Western allies, including system integration, adoption of NATO procedures, and cooperation with international organisations. In CIMIC, this goes beyond technical alignment to bridging different organisational cultures and systems. Achieving effective civil–military interoperability depends on shared planning, standardised reporting, liaison teams linking various agencies, and secure communication channels. Joint training, exercises, and review processes involving civil actors as partners are essential for this. Interoperability is often measured by an organisation’s ability to exchange timely, accurate data on casualties and capacity across institutional boundaries; CASEVAC exemplifies this. CIMIC structures should focus on governance and technical interfaces that enable capacity-aware patient flow between military and civilian medical systems, including agreed data standards and escalation procedures.

Historically, traditional methods viewed CIMIC and civil actors as marginal, mainly focusing on weapons, command, and tactics. Consequently, shared planning, reporting, liaison, and interoperable information systems for CIMIC were underdeveloped. Organisational cultures and systems often remained misaligned, with joint civilian-military training inconsistent and underfunded. When tools such as planning systems, liaison teams, secure information channels, and joint training programs were introduced, Ukraine and its partners saw improvements in collaboration, civilian integration, and operational resilience and efficiency. Nevertheless, the absence of these mechanisms led to slower, fragmented coordination and limited international support. This underscores the need for NATO and its allies to invest in interoperable CIMIC structures and processes, especially in high-intensity conflicts and hybrid campaigns, recognising CIMIC as a vital component of overall operations interoperability.

5.9 Summary

Taken together, the DOTMLPF lessons indicate that CIMIC effectiveness in high-intensity conflict depends on doctrinal elevation as a joint function, decentralised organisation with clear authorities, tailored training, resilient enabling systems, and interoperable information flows with non-military actors. These adaptations are prerequisites for sustaining civil–military effects under persistent disruption, and for translating resilience gaps into actionable CFI/CMI activities that support commander decision-making.

In the Ukrainian case, the cumulative evidence shows that CIMIC must be structured and enabled to operate at scale: it needs consistent assessment-to-action processes, reliable coordination mechanisms across national and local levels, and the technical and procedural redundancy to function when communications, mobility, and critical services are degraded. Equally, CIMIC must be organised to preserve legitimacy and partner confidence through disciplined information management, clear documentation, and accountable interfaces with civilian authorities and international actors.

The following chapter consolidates these findings into overarching conclusions and implications, focusing on what must be institutionalised before a crisis, what must be adaptable during conflict, and how resilience shortfalls in the civil environment shape operational freedom of action.

Chapter 6 – Conclusions

The Russian war against Ukraine shows that credible defence and resilience are linked. For NATO, Article 3 resilience obligations, covering government, services, infrastructure, and civil support, are vital for fighting, recovering, and adapting. NATO's seven BLR guide civil preparedness. Ukraine's National Resilience Concept mostly follows these, adding information and financial resilience against hybrid threats. "Extended BLR" combines social and economic resilience with formal requirements. CIMIC links resilience, crisis management, and joint operations, as defined in AJP-3.19. The Ukrainian example shows CIMIC working with authorities, volunteers, international actors, and private providers. This chapter offers concise conclusions and policy implications across these areas. DOTMLPF-I connects lessons learned to capability needs, distinguishing formal NATO policies (Article 3, BLR, CIMIC doctrine) from analytical extensions such as extended BLR, layered resilience, systemic risk, and private-sector integration.

DOTMLPF-I

6.1 Doctrine

CIMIC doctrine is generally sound but needs updating for large-scale combat and resilience domains. The Ukrainian case affirms AJP-3.19 principles: CIMIC is a joint function, essential in military decisions affecting civilians, and supports a comprehensive approach. It also helps translate Article 3 resilience into operational effect. However, doctrine lags behind real-world developments, which involve large-scale combat, destruction, displacement, and civilian targeting. Therefore, CIMIC doctrine should include:

- Clearly define its role in LSCO against a peer adversary, linking tasks to protecting and restoring critical services, supporting territorial defence and national resistance, and managing civilian harm and displacement.
- Integrate additional resilience domains while clearly differentiating these conceptual extensions from NATO's official BLR.
- Adopt a systemic-risk approach that acknowledges cross-sector dependencies and assigns CIMIC the role of supporting risk assessment and presenting prioritised mitigation options to commanders.

These adaptations will further develop the core principles of CIMIC as a joint function that acts as a gatekeeper for RtCP, linking national civil preparedness with NATO's planning and operations. These adaptations will ensure that CIMIC is ready for deployment at short notice. It emphasises maintaining this link under hybrid warfare and contested conditions, such as attacks on civilian infrastructure, disrupted services, large-scale displacement and highlights the need for more explicit integration of host nation and allied support mechanisms into doctrine and planning.

6.2 Organisation

CIMIC should function as a permanent, interconnected joint role that embodies a comprehensive whole-of-society defence strategy. Ukraine emphasises the benefits of dedicated J9/CIMIC structures at all levels, mirrored down through division, brigade, and battalion headquarters and closely linked to territorial defence, national resistance, and local authorities. At the same time, it demonstrates the limitations of relying on informal arrangements with volunteers and private-sector actors. For NATO and allied nations, organisational design should:

- Establish CIMIC as a permanent joint function within national headquarters rather than a temporary crisis cell.
- Establish formal links among CIMIC, territorial defence, national resistance, and civil-protection/emergency-management agencies, ensuring transparent information flow and decision-making procedures.
- Establish specialised liaison structures for key private-sector providers, such as energy, telecommunications, logistics, digital services, and financial institutions, during peacetime, particularly where critical infrastructure is privately owned.
- Establish professional career pathways for CIMIC officers and NCOs, recognising the demanding nature of CIMIC service- including experience in Ukraine- as a means to promote career advancement.
- Define structured career models for CIMIC generalists and specialists (energy, finance, public administration, digital infrastructure, reconstruction).

CIMIC organisation should be planned from the beginning as a component of a comprehensive whole-of-society defence framework capable of quick scaling during crises.

6.3 Training

Effective CIMIC performance in LSCO depends on integrated, multi-actor training that considers resilience a central rather than a niche focus. Ukrainian experiences illustrate dedicated CIMIC personnel working under harsh conditions, yet frequently lacking systematic preparation for CCTs, Human Security, and complex LSCO scenarios. Therefore, training systems should:

- Include LSCO-relevant scenarios such as mass displacement, infrastructure attacks, cyber disruptions, and information operations.
- Integrate CCTs and Human Security principles, emphasising civilian harm mitigation, IHL/ IHRL compliance, accountability, and coordination with humanitarian agencies, all while upholding humanitarian principles.
- Engage civil-protection agencies, critical infrastructure operators, financial regulators, and strategic-communications teams in joint exercises that simulate multi-domain shocks.

- Within the training line of effort, mass-casualty CASEVAC coordination should be exercised as a cross-staff coordination issue, including patient-tracking procedures, capacity reporting, and decision-making under resource constraints.

Training is a vital investment in resilience: without specialised, professional CIMIC training, reforms in other areas cannot be fully achieved.

6.4 Materiel

Materials for CIMIC and resilience should be regarded as a dual-use ecosystem of systems, contracts, and data architectures. Ukrainian experience indicates that successful CIMIC relies on more than just 'CIMIC equipment." It requires:

- Secure, interoperable information systems are vital for documenting civil environments, monitoring actors and needs, and coordinating support even offline or in low-bandwidth situations. For health services, they must enable secure casualty tracking and capacity-aware routing across civil and military providers, while adhering to data protection laws.
- Contractual agreements with key private providers (energy, telecommunications, transport, digital services, financial infrastructure) prepared in advance for rapid activation during crises.
- Redundancy and decentralisation: local energy generation, modular repair teams, satellite and alternative communication channels, and pre-positioned stocks for civil protection.

Materiel planning should prioritise civil support as a fundamental part of force planning. CIMIC ought to recognise and incorporate dual-use capabilities that benefit both civilian continuity and military operations.

6.5 Leadership

Leadership at every level must recognise that CIMIC and resilience are vital parts of deterrence, defence, and legitimacy. Studies on Ukrainian resilience link societal endurance to credible and effective leadership across political, military, and local spheres. This means that:

- Political and strategic leaders should prioritise CIMIC and resilience as key national defence elements, not secondary.
- Operational and tactical commanders must involve CIMIC officers in decision-making and integrate civil-environment factors into planning.
- Civil leaders like mayors and agency heads need clear mandates, contacts, and procedures for crisis cooperation.
- Leadership also means shaping the narrative- explaining risks, setting expectations, and motivating society without causing panic or fatigue.

Leadership development and evaluation should explicitly include civil–military cooperation and resilience as core competencies.

6.6 Personnel

CIMIC personnel must maintain a resilient, specialised community capable of handling LSCO demands. Ukrainian CIMIC staff face a high and ongoing personnel burden, including long rotations, exposure to civilian suffering, and complex tasks such as search-and-recovery operations. To sustain similar capabilities, countries should:

- Systematically utilise reserve forces, territorial units, and civilian secondments, including mechanisms to register, verify, and mobilise civilian expertise in support of CIMIC and other designated civil support tasks.
- For a humanitarian surge, these organisational elements should be supported by clear arrangements for task shifting, credential recognition, and liability protection so civilian and military providers can work together effectively under constrained conditions.
- Recognise volunteer networks and NGOs as part of the civil–military ecosystem and support through coordination, information sharing, and psychosocial support.
- Provide rest cycles, mental-health support, and incentives recognising CIMIC in LSCO as a demanding service.

Personnel are the human backbone of layered resilience; without a stable CIMIC community, the wider system cannot be maintained.

6.7 Facilities

CIMIC-related facilities should be developed and operated as resilient, shared assets and key hubs for crisis management. In Ukraine, coordination centres, joint hubs, and emergency operations centres are both crucial and targeted. The facilities policy should:

- Co-locate CIMIC centres with crisis-management hubs to enhance situational awareness and daily cooperation.
- Equip essential facilities with backup power and communications, such as protected data links and alternative routes, and develop tested plans for the quick relocation of CIMIC staff if necessary.
- Make mapping and prioritisation of critical infrastructure an explicit CIMIC task to support operational planning and national BLR implementation.

Facilities should be regarded as both objects of protection and facilitators of coordination within the resilience framework.

6.8 Interoperability

CIMIC should serve as the primary channel for NATO and partner interoperability. The Ukrainian example shows that integrating Western systems, procedures, and actors under pressure is possible with prior preparation and shared frameworks. For NATO and its members, this means:

- Using CIMIC to develop shared planning frameworks and standardised reporting between military and civilian actors at home and with partners.
- Building liaison and coordination teams with NMAs already in peacetime.
- Invest in compatible civil data systems, secure channels, joint training with civil actors, and develop interfaces for interoperability with national medical systems and standardized patient-flow reporting to enable CIMIC to prioritize evacuation and treatment based on verified capacity.

Interoperability in CIMIC is not only about technical standards but also about cooperation habits developed during peacetime and tested under stress in crises.

6.9 Summary

The Ukrainian example emphasises and clarifies the study's core message: CIMIC is an essential part of modern deterrence and defence, extending beyond a simple liaison role. Resilience, as outlined in Article 3 and operationalised through the BLR, should be adopted nationwide in doctrine and practically integrated with CIMIC, especially when it involves information/social and financial/economic resilience. Three implications follow:

1. **Anchor CIMIC as the operational interface of resilience.** AJP-3.19 implementation, NATO Defence Planning Process targets, and national defence planning should prioritise CIMIC as the key joint function linking military planning with national resilience and civil-preparedness efforts.
2. **Integrate resilience and CIMIC into capability development.** Doctrinal updates, organisational reviews, training reforms, materiel programmes, leadership development, personnel policy, and facility design should be handled as a unified package rather than as separate initiatives.
3. **Be explicit about analytical extensions.** Concepts such as “extended BLR” and “layered resilience” should be used transparently, clearly distinguishing between formal NATO standards and national or analytical elaborations, while systematically drawing on Ukraine’s lessons.

Implementing these implications will enable future Allied responses to be more prepared to fight and endure from the outset. Military forces and societies will strengthen one another, with CIMIC placed where Ukraine’s experience indicates it belongs: at the core of resilient defence.

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Back matter

Definitions:

Term	Definition	Strategic Function
Civil-Military Cooperation (CIMIC)	CIMIC is a military joint function that integrates the understanding of the civil factors of the operating environment, and that enables, facilitates and conducts civil-military interaction to support the accomplishment of missions and military strategic objectives in peacetime, crisis and conflict.	CIMIC supports the Comprehensive Approach by coordinating military and non-military activities through ongoing liaison with relevant actors and integrating civil aspects into the military framework to achieve mission success and strategic goals.
Baseline Requirements for Resilience (BLR)	BLR are seven NATO-agreed priority areas of civil preparedness, such as continuity of government, continuity of essential services, and civil support to military operations, against which Allies assess and strengthen their resilience to crises and armed attack.	BLR measures resilience by linking preparedness to defence. For CIMIC, it serves as a checklist to identify civil vulnerabilities, prioritise investments, and guide engagement with authorities, municipalities, and private operators within NATO standards.
Civil Environment (CivEnv)	CivEnv includes all civil actors, institutions, infrastructure, info, activities, and processes in the operational area that can influence or be affected by military actions. It involves identifying, analysing, and assessing civil factors to guide planning and execution.	CivEnv links military planning to societal resilience, helping leaders align operations with national aims. It prioritises protecting civil functions and using civil support without harming legitimacy or recovery.
Resilience	The ability of a society to resist and recover quickly from shocks	First line of defence; critical enabler for credible deterrence.
Civil Factor Integration (CFI)	CFI systematically integrates civil factors, actors, institutions, infrastructure, services, and population, into all stages of military planning, decision-making, and assessment. It links CivEnv analysis directly to operational design, targeting, and resilience.	CFI turns civil-environment understanding into a planning tool by aligning resilience frameworks like BLRs with operational and societal needs. This study presents CFI as a lens viewing CIMIC as a coordinator linking BLR implementation, PoC/CHMR efforts, and host-nation governance into a unified civil operation.
Civil Military Interaction (CMI)	CMI are activities between military NATO bodies and NMAs to foster mutual understanding that enhance effectiveness and efficiency in crisis management and conflict prevention and resolution.	CMI promotes collaboration between military and NMAs to improve crisis management, conflict prevention, and resolution. As a CIMIC core activity, it synchronises efforts to support joint actions, achieve mission goals, and meet strategic objectives.
Civilian Harm Mitigation and Response (CHMR)	CHMR is a systematic approach by which armed forces prevent, minimise, and respond to civilian harm arising from their operations, through dedicated policies, procedures, data collection, analysis, and remedial measures.	CHMR links operational practice to political goals by minimizing civilian harm, impacting legitimacy, resistance, or alliances. For CIMIC, it involves planning, CivEnv reporting, and community engagement to adhere to legal and ethical standards while preserving strategic independence.
Comprehensive Approach	Synchronisation of military with non-military activities	Ensures whole-of-government and private sector mobilisation for continuity of operations
Countervalue Strategy	Targeting an opponent's civilian assets (e.g., infrastructure) to erode popular will	Primary challenge CIMIC must mitigate in a high-intensity war against a peer adversary

Protection of Civilians (PoC)	PoC includes “all efforts taken to avoid, minimise, and mitigate the negative effects of military operations on civilians and, where applicable, to protect civilians from conflict-related physical violence or threats of physical violence by other actors.”	For CIMIC, PoC offers the normative and operational framework that connects civil-environment analysis, targeting decisions, and civil-military coordination to reduce civilian harm and maintain societal support for the defence effort.
Whole of Society / Total Defence (WoS / TD)	This is an approach in which the entire society, armed forces, civil defence, public administration, private sector, civil society, and the population, is prepared and mobilised to prevent, withstand, and recover from crises and war. It combines military and civil defence, treating resilience as a shared responsibility across state and society.	This posture expands deterrence and defence beyond armed forces by hardening critical functions, ensuring societal continuity, and enabling prolonged resistance. It defines CIMIC as a permanent joint function linking military structures to authorities, infrastructure operators, and civil society, operationalising total defence.

List of Abbreviations:

AFU	Armed Forces of Ukraine
AJP 3.19	Allied Joint Publication 3.19
BOA	Basic ordering agreements
BLR	Baseline Requirements
CCTs	Cross-Cutting Topics
CFI	Civil Factor Integration
CivEnv	Civil Environment
CIMIC	Civil-Military Cooperation
CIVIC	Civilians in Conflict (NGO)
CMI	Civil-Military Interaction
COPD	Comprehensive Operations Planning Directive
CRSV	Conflict-Related Sexual Violence
DOTMLPFI	Doctrine, Organisation, Training, Materiel, Leadership, Personnel, Facilities, Interoperability
EU	European Union
EBRD	European Bank for Reconstruction and Development
ERA	Extraordinary Revenue Acceleration (Loans)
EUCPM	EU Civil Protection Mechanism
FAO	Food and Agriculture Org. of the United Nations
GDP	Gross Domestic Product
IDP	Internally Displaced Persons
IHL	International humanitarian law
IHRL	International Human Rights Law
IMF	International Monetary Fund
IOs	International Organisations
IOM	International Organization for Migration
KHPP	Kakhovka Hydroelectric Power Plant
LSCO	Large-Scale Combat Operations
MDB / MDBs	Multilateral Development Bank(s)
MTT	Mobile Training Team
NATO	North Atlantic Treaty Organisation
NCO	Non-Commissioned Officer(s)
NGO	Non-Governmental Organisation
NMA(s)	Non-Military Actor(s)
PoC	Protection of Civilians
PoC/CHMR	Protection of Civilians / Civilian Harm Mitigation and Response
RRP	Regional Refugee Response Plan
SESU	State Emergency Service of Ukraine
STRATCOM	Strategic Communication
SSA	Surveillance System for Attacks on Health Care
TDF	Territorial Defence Forces
PFM	Public Financial Management
PKSOI	Peacekeeping and Stability Operations Institute
PoC	Protection of Civilians
TFGBV	Technology-Facilitated Gender-Based Violence

UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
USAID	United States Agency for Intern. Development
UXO	Unexploded Ordnance
VFTC	Voluntary Formations of Territorial Communities
WFP	World Food Programme
WHO	World Health Organisation
ZNPP	Zaporizhzhia Nuclear Power Plant

Annex – CIMIC Decisive Conditions, Effects, Actions and Tasks

This section consolidates the key conditions, effects, actions, and tasks of CIMIC at all levels in a COPD-style structure. These elements are identical to those listed in chapter 4.3; they are only visualised in JOPG format. The measurement field provides indicative qualitative and quantitative indicators that headquarters can use to monitor progress and incorporate CIMIC into planning, assessment, and reporting. The table is adaptable for use in NATO-FAS, lessons-learned databases, and national doctrine. All listed elements are mission-essential; therefore, this field is not displayed.

Level	Item	Label	Name	Description	Measurement
STRAT	Effect	MSE_J9_001	STRENGTHEN strategic resilience	CIMIC integrates military, governmental and societal efforts so that the state can withstand, adapt to and recover from sustained hostile action.	Measured by continuity of core state functions, speed of restoration of essential services after major attacks and stability of public confidence indicators.
STRAT	Effect	MSE_J9_002	ENHANCE strategic communication and legitimacy	CIMIC aligns military messaging with national and international narratives to maintain public support and demonstrate compliance with law and norms.	Measured by media and social-media analysis, trends in misinformation are taking hold, and domestic and international perceptions of the operation's legitimacy.
STRAT	Effect	MSE_J9_003	ENABLE interoperability with allies and partners	CIMIC structures and procedures are aligned with NATO standards to facilitate joint planning, execution and support with allied and partner forces.	Measured by the number and quality of joint activities using interoperable CIMIC procedures and by external evaluations of CIMIC interoperability.
STRAT	Effect	MSE_J9_004	INTEGRATE national resistance and civil defence	CIMIC coordinates territorial defence, local authorities, and civil protection structures to form a coherent national resistance posture.	Measured by the proportion of regions with functioning CIMIC–TDF mechanisms, quality of joint plans and speed of joint crisis responses.
STRAT	Effect	MSE_J9_005	SUPPORT strategic protection of civilians	CIMIC contributes to national measures that reduce civilian harm and maintain essential services for the population during conflict.	Measured by trends in civilian casualties and access to essential services in areas where CIMIC measures are implemented.

Level	Item	Label	Name	Description	Measurement
STRAT	Effect	MSE_J9_006	ENHANCE force morale and social resilience	CIMIC-led support services mitigate social, legal and medical problems of service personnel and families to sustain readiness and retention.	Measured by utilisation of support services, resolution rates, and correlations with retention, absenteeism and reported morale.
STRAT	Effect	MSE_J9_007	REINFORCE strategic logistics and host-nation support	CIMIC mobilises civil transport, storage and repair capacity in order to reinforce strategic mobility and sustainment.	Measured by civil capacities made available, activation times for civil contracts and proportion of deployments supported by civil resources.
STRAT	Effect	MSE_J9_008	STRENGTHEN human security as a combat multiplier	CIMIC and J9 structures mainstream human security and civilian harm mitigation considerations to preserve freedom of action and support.	Measured by the inclusion of CHM and human-security inputs in plans, trends in civilian harm and feedback from humanitarian and human-rights actors.
STRAT	Action	MSA_J9_001.1	EMBED CIMIC within AFU and national policies	Embed CIMIC within the AFU and link it to national policies and NATO-aligned doctrine to ensure a coherent whole-of-nation approach to defence and resilience.	Measured by the formal inclusion of CIMIC in AFU structures and national defence/resilience policies, and by commander assessments of how far CIMIC contributes to a coherent whole-of-nation defence posture.
STRAT	Action	MSA_J9_001.2	INTEGRATE TDF and volunteer groups into the CIMIC system	Integrate TDF and local volunteer groups into the national CIMIC system so local initiatives reinforce national defence strategies and the concept of national resistance.	Measured by the number and quality of formal arrangements linking TDF and volunteer groups to CIMIC structures, and by evidence that local initiatives are aligned with and reinforce national resistance and defence strategies.
STRAT	Action	MSA_J9_001.3	COORDINATE civilian-protection policies	Coordinate policies to protect civilians, including evacuation, humanitarian demining, and strengthening the Unified Civil Protection System under martial law.	Measured by the existence and implementation of integrated national policies on evacuation, humanitarian demining and civil protection, and by trends in civilian harm and access to protection in contested areas.

Level	Item	Label	Name	Description	Measurement
STRAT	Action	MSA_J9_002.1	INTEGRATE CIMIC into STRATCOM	Integrate CIMIC into strategic communication to support transparent, credible engagement with domestic and international audiences.	Measured by CIMIC input into strategic communication plans and products, and by domestic and international audience indicators of transparency, credibility and understanding of AFU actions and objectives.
STRAT	Action	MSA_J9_002.2	OPERATE J9 as hub for AFU–non-military engagement	Operate the CIMIC Directorate (J9) as the hub for AFU engagement with NMAs, supporting the legitimacy of operations.	Measured by the number and effectiveness of engagement mechanisms managed by J9, the breadth of NMAs engaged, and partner feedback on access, coordination and perceived legitimacy of AFU operations.
STRAT	Action	MSA_J9_003.1	ALIGN CIMIC doctrine with NATO and use J9 as interface	Align national CIMIC doctrine with NATO guidelines and operate the J9 Directorate as the key interface with NATO institutions, COEs, and support mechanisms to harmonise procedures and standards.	Measured by doctrinal alignment with NATO CIMIC publications, participation in NATO/COE CIMIC activities, and interoperability assessments in exercises and operations.
STRAT	Action	MSA_J9_004.1	INTEGRATE TDF and volunteers for resistance and civil protection	Integrate TDF and local volunteers into the CIMIC system to align resistance activities with national defence and civil protection.	Measured by the extent to which TDF and volunteer resistance activities are planned and executed through CIMIC structures and aligned with national defence and civil-protection concepts and plans.
STRAT	Action	MSA_J9_004.2	REINFORCE the unified civil protection system	Reinforce the Unified Civil Protection System under martial law to ensure coordinated civil defence measures across all levels.	Measured by the robustness and clarity of civil-protection coordination under martial law, including functioning command chains, joint planning mechanisms and consistent implementation of measures at national and local level.
STRAT	Action	MSA_J9_005.1	PROVIDE doctrinal guidance for civilian harm reduction	Provide doctrinal guidance and planning to reduce civilian harm, support humanitarian efforts, enable the return of displaced persons, and manage the search for missing personnel.	Measured by the availability of CIMIC-related doctrinal guidance on CHM, displacement and missing persons, and by its integration into strategic plans, directives and assessment frameworks.

Level	Item	Label	Name	Description	Measurement
STRAT	Action	MSA_J9_005.2	COORDINATE evacuation policies and prioritise humanitarian demining	Coordinate evacuation policies and prioritise humanitarian demining to mitigate civilian risk in contested areas.	Measured by the coverage and implementation of national evacuation plans and humanitarian demining priorities in high-risk areas, and by reductions in civilian casualties and mine-related incidents over time.
STRAT	Action	MSA_J9_006.1	SUPPORT humanitarian efforts and returns of displaced persons	Support humanitarian efforts and planning for the return of displaced persons to maintain societal cohesion and demonstrate commitment to the population.	Measured by the scale and effectiveness of humanitarian programmes and return-planning frameworks supported through CIMIC, and by indicators of social cohesion and stability in areas of return.
STRAT	Action	MSA_J9_006.2	CONDUCT CIMIC-led community engagement to sustain trust	Use CIMIC-led engagement with communities to sustain trust between the AFU, authorities, and civilians, indirectly supporting force morale.	Measured by the frequency and reach of CIMIC-led community engagement activities, public-trust indicators regarding AFU and authorities, and correlations with force-morale and retention indicators.
STRAT	Action	MSA_J9_007.1	OPERATE J9 as coordination hub for civil resources	Operate the J9 Directorate as a coordination hub with NMAs to facilitate access to civilian resources, infrastructure, and services supporting host-nation efforts.	Measured by the volume, timeliness and reliability of civilian resources, infrastructure and services mobilised via J9, and commander assessments of host-nation support and strategic sustainment.
STRAT	Action	MSA_J9_008.1	COORDINATE human-security-focused protection and restoration	Coordinate efforts to protect civilians, restore essential services, and address missing persons as part of CIMIC's core mandate, reinforcing human security as a strategic enabler of military operations.	Measured by the integration of human-security priorities into strategic plans and campaigns, the speed of essential-service restoration, and the effectiveness of mechanisms addressing missing persons and civilian protection.
OPS	Decisive condition	DC_J9_01	MAINTAIN Freedom of movement	Key routes and nodes remain accessible and are swiftly restored for forces, logistics, and civilians to move as needed.	Measured by the proportion of priority routes kept open or restored within planned timelines and commander assessments of freedom of movement.

Level	Item	Label	Name	Description	Measurement
OPS	Decisive condition	DC_J9_02	MAINTAIN Civilian cooperation and legitimacy	Local populations cooperate with authorities and armed forces when operations are seen as legitimate and lawful.	Measured by levels of civilian reporting and participation, incidence of civil resistance to friendly forces and perceptions in polling or consultations.
OPS	Decisive condition	DC_J9_03	INTEGRATE CIMIC capabilities	CIMIC capabilities are embedded within operational commands and supported by appropriate personnel, materiel, and services.	Measured by CIMIC staffing against establishment, participation in planning and battle rhythm and commander assessments of CIMIC contribution.
OPS	Decisive condition	DC_J9_04	SUSTAIN Civil governance	Civil governance structures continue or are re-established in contested areas under military security.	Measured by the number of municipalities where basic governance functions operate and the time taken to restore them.
OPS	Decisive condition	DC_J9_05	ASSURE Force protection	Military units and civilians are protected from avoidable harm so that secure basing, manoeuvre and sustainment are possible.	Measured by trends in attacks on bases and movements, civilian proximity-related incidents and changes in force-protection posture.
OPS	Decisive condition	DC_J9_06	ASSURED Personnel and family support	Service personnel and families have access to support that reduces non-operational stress and preserves combat effectiveness.	Measured by demand for, and satisfaction with, support mechanisms and correlations with readiness and retention indicators.
OPS	Decisive condition	DC_J9_07	MOBILISE Civil logistics and services	Additional logistics and service capacities from NMAs can be activated quickly to support operations.	Measured by civil capacities identified and mobilised, activation times and the extent to which military shortfalls are covered.
OPS	Decisive condition	DC_J9_08	INTEGRATE Human security into operations	Civilian-harm mitigation and human security considerations are integrated into planning, execution, and assessment.	Measured by the number of operations with explicit CHM inputs and reviews, and by trends in civilian harm incidents.

Level	Item	Label	Name	Description	Measurement
OPS	Effect	OE_J9_01.1	ENABLE freedom of movement	CIMIC activities facilitate the safe movement of forces, logistics, and civilian actors within the operational area.	Measured by delays on key routes, time to re-open routes after incidents and qualitative assessments of mobility constraints.
OPS	Effect	OE_J9_01.2	PRESERVE NCI & economic function	CIMIC supports the protection and rapid restoration of critical infrastructure essential to civilian life and military operations.	Measured by the availability of priority infrastructure, the time to restore minimum service and the number of people affected by outages.
OPS	Effect	OE_J9_02.1	SECURE civilian cooperation	CIMIC and information activities secure active support from local populations for operational objectives.	Measured by volume and quality of civilian reporting, participation in briefings and compliance with agreed measures.
OPS	Effect	OE_J9_02.2	MAINTAIN legitimacy and compliance with IHL	CIMIC contributes to compliance with international humanitarian law and to maintaining domestic and international legitimacy.	Measured by numbers and outcomes of alleged IHL violations, external legal assessments and diplomatic reactions.
OPS	Effect	OE_J9_03.1	ENHANCE CIMIC capability	CIMIC units are established, resourced and integrated into operational commands to plan, execute and assess civil–military interaction.	Measured by manning levels, training status, presence in key planning events and evaluation reports on CIMIC performance.
OPS	Effect	OE_J9_03.2	ENHANCE force generation and sustainment	CIMIC mobilises additional personnel, equipment and services that directly support force generation and sustainment.	Measured by the number of volunteers, reservists, equipment donations and services enabled through CIMIC channels.
OPS	Effect	OE_J9_04.1	SUPPORT civil governance	CIMIC enables civil administrations to maintain or restore essential governance functions in contested and newly liberated areas.	Measured by the share of liberated settlements with functioning local administration and basic services.
OPS	Effect	OE_J9_05.1	ASSURE force protection	CIMIC reduces civil–military friction and supports measures that create a safer environment for forces and civilians.	Measured by the number of civil–military friction incidents, local security assessments and trends in attacks assisted by civilian proximity.

Level	Item	Label	Name	Description	Measurement
OPS	Effect	OE_J9_06.1	ENHANCE personnel and family support	CIMIC-led services provide legal, social and medical assistance that reduces non-operational burdens on personnel and families.	Measured by caseload, resolution times, reported satisfaction and correlations with readiness and retention indicators.
OPS	Effect	OE_J9_07.1	STRENGTHEN civil–military logistics and services networks	CIMIC establishes and maintains networks with civil actors that provide additional logistics and services for operations.	Measured by the number of agreements, capacity made available and the proportion of support tasks covered by civil resources.
OPS	Effect	OE_J9_08.1	INTEGRATE civilian harm mitigation and human security into operations	CIMIC ensures that civilian-harm-mitigation and human-security measures are integrated into planning, execution and assessment.	Measured by the number of operations with CHM inputs, pre-mission briefs and post-mission reviews and by trends in civilian harm.
OPS	Action	OA_J9_01.1.1	FACILITATE repair of critical routes	Coordinate with NMAs to repair critical roads and bridges in order to support local livelihoods and enable the movement of forces.	Measured by numbers and lengths of repaired routes, time from damage to restoration and changes in logistic and civilian travel times.
OPS	Action	OA_J9_01.1.2	PLAN and coordinate humanitarian demining	Coordinate demining and mine-risk education with authorities, focusing on routes, farmland, and settlements.	Measured by areas cleared, numbers of MRE activities conducted and reductions in mine and UXO incidents affecting civilians and forces.
OPS	Action	OA_J9_01.2.1	COORDINATE restoration of the electrical grid	Coordinate grid restoration with the national operator, utilities and donors to restore power and maintain essential services.	Measured by time to restore power, share of critical users reconnected within timelines, and number of coordinated repair missions.
OPS	Action	OA_J9_01.2.2	COORDINATE protection of critical infrastructure	Coordinate with infrastructure operators and authorities to safeguard critical nodes, ensuring civilian life and operations.	Measured by the number of protected sites, incidents prevented or mitigated and continuity of services from those sites.

Level	Item	Label	Name	Description	Measurement
OPS	Action	OA_J9_02.1.1	EDUCATE and inform local populations	Conduct activities with local populations to promote cooperation and compliance.	Assessed through reach, frequency, and observed changes in behaviour and cooperation.
OPS	Action	OA_J9_02.2.1	FACILITATE recovery and repatriation of fallen personnel	Facilitate recovery, repatriation and legal management of soldiers' bodies to provide closure to families and maintain institutional credibility.	Measured by timeliness and completeness of recovery and repatriation processes and feedback from families and authorities.
OPS	Action	OA_J9_03.1.1	ESTABLISH and deploy CIMIC units	Establish and deploy dedicated CIMIC units across regional and selected operational commands to improve CIMIC planning and execution.	Measured by the number of CIMIC units deployed, their manning status and the extent of their involvement in planning and operations.
OPS	Action	OA_J9_03.2.1	COORDINATE CIMIC-led voluntary aid	Coordinate personnel deployment and essential equipment supply for CIMIC-led voluntary aid to the armed forces in cooperation with TDF and volunteers.	Measured by the volume and timeliness of voluntary aid coordinated through CIMIC and its contribution to filling critical gaps.
OPS	Action	OA_J9_04.1.1	ESTABLISH CIMIC administrations	Establish CIMIC administrations at appropriate levels to support community livelihoods when governance is ineffective.	Measured by the number of CIMIC administrations established, their coverage of affected populations and feedback from local authorities.
OPS	Action	OA_J9_05.1.1	EVACUATE civilians from high-risk areas	Evacuate civilians from danger areas, cooperate with NMAs to ensure safe passage, protect non-combatants, and facilitate humanitarian access.	Measured by numbers of civilians evacuated, timing relative to threat and absence of major incidents during evacuations.
OPS	Action	OA_J9_05.1.2	SYNCHRONISE protection-of-civilians and CIMIC measures	Synchronise protection-of-civilians measures with CIMIC activities, including early warning, evacuations, shelter management and IDP support.	Measured by the degree of alignment between PoC plans and CIMIC activities and by PoC outcomes in supported areas.
OPS	Action	OA_J9_06.1.1	PROVIDE support services for personnel and families	Establish and provide legal, social and medical support services for personnel and families at all appropriate levels.	Measured by utilisation of services, case resolution rates and user satisfaction levels.

Level	Item	Label	Name	Description	Measurement
OPS	Action	OA_J9_06.1.2	TRAIN support-service specialists	Develop and conduct training for support specialists to engage communities and partners with tailored solutions.	Measured by the number of trained specialists, training completion rates and observed performance in support roles.
OPS	Action	OA_J9_07.1.1	ALIGN civil capabilities with operational needs	Coordinate logistics, medical, security, emergency, and volunteer services to align civil capabilities with transport, shelter, and medical needs.	Measured by the proportion of identified civil capabilities successfully matched to operational requirements.
OPS	Action	OA_J9_07.1.2	SECURE civil transport, storage and repair facilities	Identify and negotiate the use of local transport, storage and repair facilities with municipalities, civil society and private actors.	Measured by the number and capacity of civil facilities made available and their utilisation rate in support of operations.
OPS	Action	OA_J9_08.1.1	INTEGRATE civilian harm mitigation into planning	Incorporate civilian harm mitigation and civilian protection into planning, orders, and rehearsals via CIMIC-led groups.	Measured by the frequency and quality of CHM inputs into plans and by subsequent trends in civilian harm during operations.
OPS	Action	OA_J9_08.1.2	REPORT on civilian harm and damage	Collect, analyse and report data on civilian casualties and damage to inform command decisions and targeting reviews.	Measured by timeliness, completeness and analytical quality of civilian-harm reports and their use in decision-making.
OPS	Action	OA_J9_08.1.3	ESTABLISH secure reporting	Implement a documented SOP with 24/7 contacts, clear escalation timelines, consent-based referrals, and rehearsed backups within the reporting.	Track SOP/POC coverage, rehearsals, timeliness, pathway compliance, survivor consent, and repeat incident trends.
Tactical	Action	TA_J9_01.1.2-2	SUPPORT mine-risk education	Support mine-risk education and safety briefings for communities, especially children, farmers and IDPs, together with mine-action operators and Red Cross.	Measured by the number of sessions conducted, audiences reached and changes in mine-related incident rates.
Tactical	Action	TA_J9_01.1.2-1	CLEAR unexploded ordnance and repair essential infrastructure	Coordinate with emergency services to clear explosive remnants of war and repair critical infrastructure such as power, water, hospitals and schools.	Measured by the number of UXO cleared, infrastructure objects repaired and resulting improvements in local safety and service continuity.

Level	Item	Label	Name	Description	Measurement
Tactical	Action	TA_J9_01.2.1-1	ASSESS and identify critical civil infrastructure	Assess and identify critical civil infrastructure essential for government functions and community livelihoods and prioritise protection and repair requests.	Measured by the completeness of assessed sites, prioritisation lists and the share of priority sites that receive follow-up action.
Tactical	Action	TA_J9_01.2.2-1	CONDUCT rapid civil-damage assessments	Conduct rapid damage assessments after strikes or ground operations to guide repairs, demining and humanitarian aid.	Measured by time from incident to assessment and by the usefulness of assessment outputs for follow-on activities.
Tactical	Action	TA_J9_02.1.1-1	INFORM the public on safety measures	Distribute safety, evacuation, curfew, and return info through media, loudspeakers, and social media.	Measured by the reach of messages, public understanding is assessed through feedback and compliance with announced measures.
Tactical	Action	TA_J9_02.2.1-1	CONDUCT search and repatriation operations	Embed CIMIC personnel with manoeuvre units to organise and conduct search and repatriation operations with forensic and legal authorities.	Measured by the number of successful recoveries and the timeliness and completeness of related documentation.
Tactical	Action	TA_J9_02.2.1-2	MAINTAIN communication with families of missing and killed personnel	Establish and maintain communication channels with military families regarding missing and killed personnel.	Measured by responsiveness to family enquiries, accuracy of information provided and satisfaction levels from family feedback.
Tactical	Action	TA_J9_03.1.1-1	INTEGRATE CIMIC in manoeuvre units	Embed CIMIC personnel within manoeuvre units to facilitate humanitarian operations and provide immediate CIMIC liaison.	Measured by the number of manoeuvre units with embedded CIMIC elements and commander assessments of their added value.
Tactical	Action	TA_J9_03.1.1-2	REPORT on the civilian environment	Report on the civilian environment and provide regular situational awareness updates on casualties, displacement and infrastructure.	Measured by frequency and quality of civilian-environment reports and their use in planning and decision-making.
Tactical	Action	TA_J9_04.1.1-1	ESTABLISH and operate humanitarian distribution hubs	Establish and operate humanitarian hubs delivering essential aid to local communities, prioritising vulnerable groups.	Measured by the number of hubs, populations served and regularity and adequacy of aid deliveries.

Level	Item	Label	Name	Description	Measurement
Tactical	Action	TA_J9_04.1.1-2	SUPPORT IDPs	Assist IDPs at transit hubs by coordinating shelter, transport and basic services.	Measured by IDPs supported, accommodation and travel arranged, and beneficiary feedback.
Tactical	Action	TA_J9_05.1.1-1	ASSIST in civilian evacuation	Assist in evacuating non-combatants and establishing safe havens and assembly points.	Measured by the numbers evacuated safely and the absence or minimisation of incidents during evacuation operations.
Tactical	Action	TA_J9_05.1.1-2	COORDINATE safe passage routes	Coordinate safe passage and evacuation routes with non-military and border authorities, including cross-border transfers.	Measured by the number of safe routes established and maintained and by successful civilian movements along those routes.
Tactical	Action	TA_J9_06.1.1-1	ESTABLISH contact points and hotlines	Set up walk-in contact points and hotlines to receive and refer service-member and family requests.	Measured by call and visit volumes, response times and satisfaction ratings from users.
Tactical	Action	TA_J9_06.1.1-2	CONDUCT outreach to units	Conduct outreach visits to units in rest areas to identify welfare, family and administrative issues affecting effectiveness.	Measured by the number of outreach visits, issues identified and resolved and unit feedback on the value of outreach.
Tactical	Action	TA_J9_07.1.1-1	LIAISE with civil service providers	Liaise with transport, repair, accommodation and medical providers to secure capacity for convoys, maintenance and accommodation.	Measured by the number of agreements concluded and the quantity and reliability of services provided.
Tactical	Action	TA_J9_07.1.1-2	MAINTAIN an overview of civil capacities	Maintain an updated overview of civilian capacities, including transport, fuel, food, shelter and medical services, to support planning and crisis response.	Measured by the completeness and currency of the civil-capacity overview and evidence of its use in operational planning.
Tactical	Action	TA_J9_08.1.1-1	BRIEF commanders and troops on human security	Brief commanders and troops on civilian presence, protected objects and harm-mitigation measures prior to operations.	Measured by the frequency of such briefs and by observed adherence to CHM guidance in subsequent operations.
Tactical	Action	TA_J9_08.1.1-2	REINFORCE frontline areas with CIMIC teams	Reinforce frontline areas with CIMIC teams to monitor civilians, assist evacuations, and coordinate responses.	Measured by the presence and activity levels of CIMIC teams in frontline areas and their recorded interventions.

Level	Item	Label	Name	Description	Measurement
Tactical	Task	TT_J9_01.1.2-3	COORDINATE UXO clearance and route repair	Coordinate with police & medical teams to clear explosive remnants & repair infrastructure, prioritising ambulance & humanitarian routes.	Measured by the number of coordinated clearance and repair tasks completed and the restoration of priority routes.
Tactical	Task	TT_J9_02.1.1-2	ALERT the population via public service announcements	Alert the population about safety rules, evacuation timelines and return conditions via public service announcements.	Measured by the frequency and reach of announcements and observed compliance with announced guidance.
Tactical	Task	TT_J9_02.1.1-3	COORDINATE humanitarian aid distribution	Liaise with international NGOs to coordinate and monitor humanitarian aid distribution, preventing overlaps and gaps.	Measured by coverage and equity of aid distribution and by reductions in duplication or uncovered needs.
Tactical	Task	TT_J9_03.1.1-3	CONDUCT joint patrols with TDF and authorities	Conduct joint patrols with TDF and local authorities to reassure the population and identify emerging humanitarian risks.	Measured by the number of joint patrols conducted and by issues identified and addressed through these patrols.
Tactical	Task	TT_J9_04.1.1-3	SUPPORT humanitarian distribution hubs	Support humanitarian hubs in designated areas and coordinate NMAs to provide hot meals, water and essential supplies.	Measured by the volume and regularity of assistance delivered through hubs and feedback from beneficiaries.
Tactical	Task	TT_J9_05.1.1-3	SUPPORT manoeuvre units in evacuation	Support manoeuvre units in evacuating non-combatants, including the establishment and security of safe havens.	Measured by the number of evacuations supported and the safety record of supported movements.
Tactical	Task	TT_J9_06.1.2-1	REGISTER and refer support cases	Register cases requiring legal, social, or medical help and coordinate with non-military providers for assistance & follow-up.	Measured by the number of cases handled, timeliness of referrals and resolution outcomes.
Tactical	Task	TT_J9_07.1.2-1	MOBILISE civil transport and fuel support	Arrange emergency access to buses, trucks and fuel from civil partners to support rapid redeployment or reinforcement.	Measured by quantities of transport and fuel provided, activation times and success in meeting urgent mobility requirements.

Level	Item	Label	Name	Description	Measurement
Tactical	Task	TT_J9_08.1.2-1	CONDUCT rapid civilian-harm assessments	Conduct rapid post-strike assessments of civilian harm, record casualties and damage and transmit findings through CHM channels to adapt tactics, techniques and procedures.	Measured by the speed and completeness of assessments and the degree to which findings lead to changes in tactics, techniques and procedures.

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