

The Challenges of Military Logistics in Humanitarian Crisis. Lessons from the Ukrainian War

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Abstract

The Ukrainian War has highlighted significant challenges in military logistics when confronted with a complex humanitarian crisis. This abstract examines the multifaceted issues that emerge when military forces are called upon to provide humanitarian assistance in conflict zones. The study draws lessons from the Ukrainian War to illuminate the intricate interplay between military operations and humanitarian efforts. The Ukrainian War reveals the significance of adapting military logistics strategies to suit the unique demands of humanitarian crises. Integrating technology, data analytics, and real-time communication is a pivotal factor in enhancing the efficiency of relief efforts. It also highlighted the ethical and moral dilemmas when military forces engage in humanitarian tasks, exploring the potential blurring of roles and responsibilities. The paper underscores the importance of seamless coordination between military units and humanitarian agencies in crisis scenarios. It delves into the intricate logistical hurdles armed forces face, such as transporting essential supplies, medical resources, and food to affected populations while navigating treacherous terrains and hostile environments. Furthermore, it discusses the criticality of establishing secure supply chains, both for military operations and the delivery of aid, to ensure uninterrupted assistance. In conclusion, the challenges encountered during the Ukrainian War underscore the need for a comprehensive and agile approach to military logistics in humanitarian crises. By drawing valuable lessons from this conflict, stakeholders can better prepare for future challenges, refine strategies, and ensure that military and humanitarian efforts synergize effectively to alleviate human suffering in times of crisis.

Keywords: Military, Logistics, Humanitarian Crisis, Ukrainian War

1. Introduction

The Russian invasion of Ukraine began on February 24, 2022, and is an ongoing conflict. The brazen attack has led to massive loss of life, enormous displacement of the Ukrainian population, and the decimation of Ukrainian cities and infrastructure. Beyond the terrible human cost, the war's effects have reached countless aspects of life, the price of fuels in the EU has risen because of Russia's unprovoked and unjustified

aggression against Ukraine, which has also led to concerns related to the security of the energy supply. Russia's military aggression against Ukraine is having a direct impact on global food security and affordability (Shapiro, 2023). In this complex situation, logistics have proved a major issue. The coordination of logistical activities is one of the most emphasized challenges faced by humanitarian logisticians (Kovács G. a., 2009). Logistics has often been described as the link between the strategic-level instruments of national power and their expression at the “lower” operational and battlefield level, described as the “timeless logistic-strategy nexus” (Erbel, 2018). In this context, military logistics is growing in supplementing and leading humanitarian assistance and disaster relief logistics (Yuste, 2019). The purpose of this paper is to critically examine the challenges faced by military logistics operations during humanitarian crises, with a specific focus on the Ukrainian War–(2022-present) as a case study, by analyzing the logistical complexities, successes, and failures in providing humanitarian assistance and military support in this conflict.

2. Definitions of Military and Humanitarian Logistics

Military supply chains are dedicated to warfare, peacekeeping missions and since the 1990s disaster relief and humanitarian aid. Military logistics and their command-and-control systems are suitable for operations in disaster areas. The lack of stability, infrastructure, and communications in harsh and/or remote areas are situations in which military logisticians are trained and prepared to operate. Military command and control systems can deal with large-scale disaster situations or war. They, like other humanitarian agencies, can deploy very quickly. Military logistics is typically regarded as a tool employed at the tactical or operational level. From NATO's perspective (NATO, 2012), logistics is *“the science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense, the aspects of military operations deal with a. design and development, acquisition, storage, transport, distribution, maintenance, evacuation, and disposition of materiel; b. transport of personnel; c. acquisition or construction, maintenance, operation, and disposition of facilities; d. acquisition or furnishing of services; and e. medical and health service support”*.

Humanitarian logistics embeds into local, national, and international disaster management systems and is defined as *“the process of planning, implementing, and controlling the efficient, cost-effective flow and storage of goods and materials as well as related information from the point of origin to the point of consumption to alleviate the suffering of vulnerable people. The function encompasses a range of activities, including preparedness, planning, procurement, transport, warehousing, tracking, and tracing, customs and clearance.”*

3. Differences and similarities between Military Logistics and Humanitarian Logistics

Military logistics and humanitarian logistics share some similarities in terms of supply chain management and resource distribution, but they also exhibit significant differences in their objectives,

operational contexts, and priorities. The primary objective of military logistics is to support military operations, maintain combat readiness, and sustain forces during combat missions (Christopher, 2016). On the other hand, humanitarian logistics aims to provide relief and assistance during natural disasters, conflicts, and humanitarian crises, to save lives, alleviate suffering, and aid affected populations (Tomasini, 2009). Another significant difference concerns security against neutrality. Military logistics often operate in a security-driven environment, where force protection and mission accomplishment are paramount. It involves security measures and military assets to ensure operational success (Yuste, 2019) while Humanitarian logistics operates under principles of neutrality, impartiality, and humanity. It focuses on delivering aid to affected populations without taking sides in conflicts and strives to minimize harm to civilians (Bealt, 2018). Response time remains a critical factor, military logistics often requires rapid response and deployment to support military operations, with a focus on agility and quick decision-making (Martin Christopher, 2006). Humanitarian logistics also demands rapid response but places a strong emphasis on the coordination of multiple stakeholders, adherence to international standards, and minimizing harm to affected communities (Tomasini, 2009). Military logistics prioritizes the allocation of resources to meet the specific needs of armed forces, including munitions, equipment, and personnel while Humanitarian logistics allocates resources based on needs assessments and prioritizes delivering essential supplies such as food, shelter, and medical aid to vulnerable populations.

Military and humanitarian logistics share many similarities involving supply chain management, encompassing procurement, transportation, warehousing, and distribution of goods and services (Kovács G. a., 2007). Both military and humanitarian logistics must address risk management, including supply chain disruptions, security threats, and environmental challenges. Moreover, information sharing and data analytics are critical in both military and humanitarian logistics to support decision-making, improve efficiency, and enhance responsiveness. Humanitarian and military logistics must be coordinated and synchronized before, during, and after disasters. “Coordination” by itself is a second-order output; the results of such coordination are what matters. It can be challenging to assess the extent to which coordination activities contribute to outcomes, which is why we recommend rigorous monitoring and evaluation through all phases of a synchronized disaster response.

4. Why has the Ukrainian War highlighted significant challenges in military logistics?

The Ukrainian War has brought several significant challenges in military logistics to the forefront, underscoring the complexities inherent in managing the flow of resources, personnel, and supplies during an armed conflict. Initially, the Ukrainian War is characterized by its protracted nature, lasting for almost two years and this fact has placed continuous and prolonged demands on military logistics systems, requiring sustained supply efforts to support troops. The longer the conflict, the more critical logistics becomes in ensuring the readiness and effectiveness of military forces (Kovács G. a., 2009).

The fluid and shifting nature of frontlines in the Ukrainian War necessitates constant adjustments to logistics plans. Military logistics must be agile and adaptable to respond rapidly to changing operational requirements and ensure that supplies reach needed troops (Altay, 2006). A paramount challenge is also the fact of ensuring the security (Van Wassenhove, 2006) of logistics operations. The presence of armed groups, militias and hostile actors in conflict zones poses significant risks to the safety of logistics personnel and supply convoys. In addition, the fact that military operations, including artillery bombardment and airstrikes, have caused significant damage to critical infrastructure such as roads, bridges and utilities have caused significant damage and disruption to the supply chain and impeded the movement of supply convoys, requiring extensive repair and reconstruction efforts (Tatham, 2010).

Effective resource allocation is challenging in a conflict with multiple fronts and diverse operational requirements. Military logistics must balance the needs of various units and missions while ensuring that essential supplies, such as ammunition and fuel, are not depleted (Gholami, 2012). Moreover, the conflict has led to access restrictions in certain areas, making it difficult for military logistics to reach troops and deliver supplies, especially on a terrain like Ukraine. This necessitates creative solutions, such as airdrops or humanitarian corridors, and coordination with humanitarian organizations (Maltz, 2018).

The major challenge, in my point of view, is the fact that the Ukrainian War has witnessed the involvement of various international actors, each with its own logistics support requirements. Coordinating the logistics efforts of multiple nations can be logistically complex and politically sensitive. A critical challenge is also the fact that effective logistics relies on accurate and timely information. In a dynamic conflict like the Ukrainian War, obtaining and sharing information about troop movements, enemy positions, and logistical needs is critical but can be hindered by security concerns.

5. How did military logistics help provide humanitarian aid in the Ukraine war?

Various countries worldwide have generously provided Ukraine with substantial military assistance to protect its sovereignty. Leading this effort, the United States and the United Kingdom have established, at U.S. Army Garrison Stuttgart in southwest Germany, the EUCOM Control Center-Ukraine/International Donor Coordination Centre (Machi, 2022), or ECCU/IDCC, a multinational logistics centre, to oversee the delivery of military equipment and ensure that Ukrainian forces are properly trained in its use. While the logistics centre initially originated and was led by separate teams from the U.S. and U.K. military forces, it has since expanded to include participants from various global allies and partners.

This multinational team constitutes a "coalition of willing participants," offering various combinations or levels of transportation, assistance, training resources, or financial support as needed. When a nation extends its offer of military support, the centre takes on the responsibility of managing the logistics to ensure the smooth movement of assets from the supplying nation to the Ukrainian border. The process, from one door to another, may require 48 to 96 hours. Numerous servicemen and women, both within and outside of NATO, are divided into specialized groups responsible for planning, providing support, managing

communications, overseeing movements, and conducting operations. Additionally, a rotation of foreign liaison officers is present. A Ukrainian military representative is integrated within the team to identify and address requests originating from Kyiv, which are subsequently handled by the ECCU/IDCC team. Officials have characterized the process as resembling a registry, where Ukraine submits specific equipment requests, and participating nations identify the needs they can meet and to what extent. As a result of the arrival of advanced equipment supplied by NATO and various allied nations, the centre has evolved into a comprehensive hub. It manages the coordination and monitoring of shipments from global sources to Ukraine and oversees the training of Ukrainian armed forces in operating and maintaining the equipment. The key challenge lies in synchronizing the training schedule with the arrival of the equipment.

Besides NATO's military logistics contribution, the following figure introduces the Ukraine Support Tracker, a comprehensive database encompassing humanitarian, military, and financial aid. This tracker unveils notable variations in the scale and nature of assistance pledged by many countries.

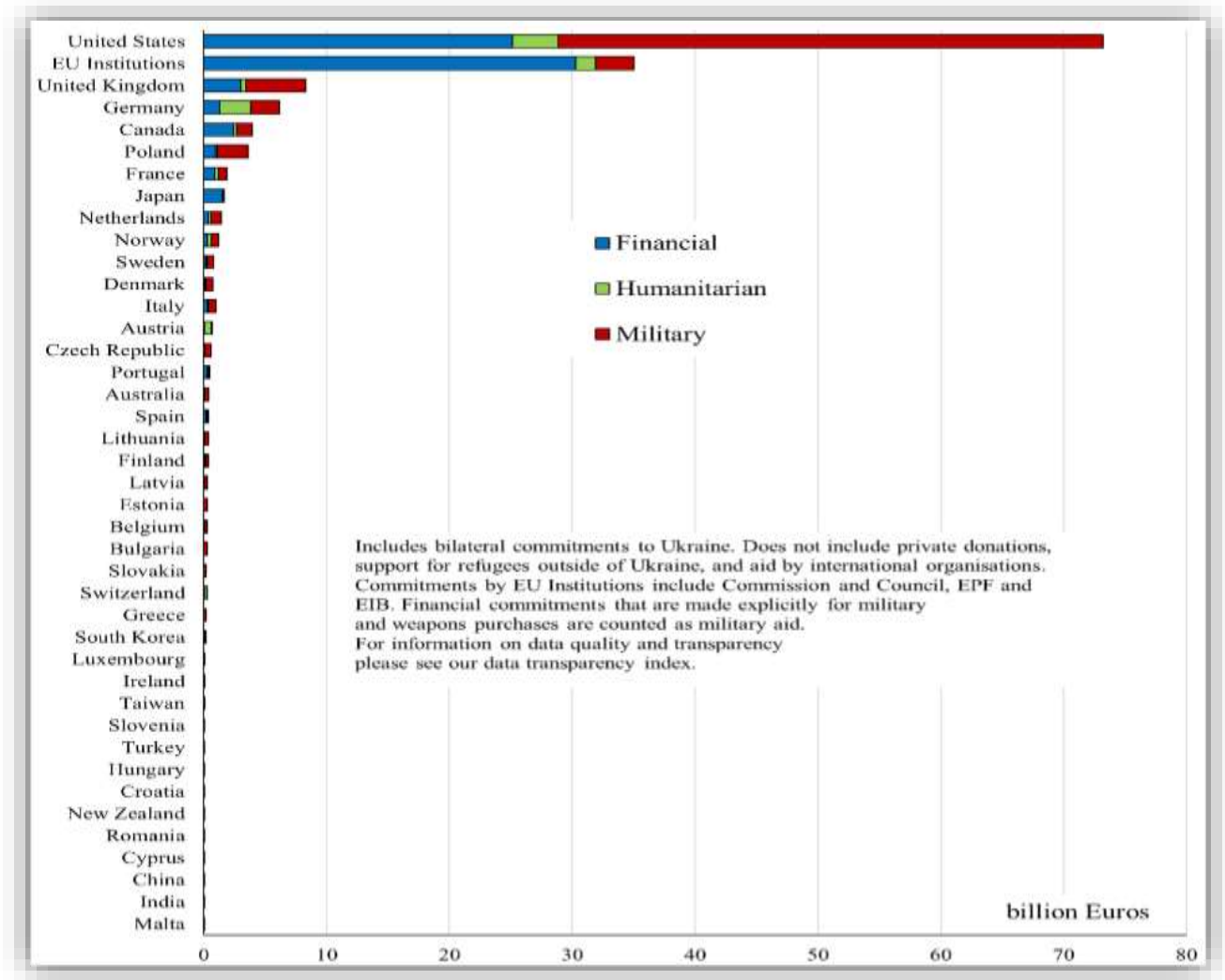


Figure 2 This figure shows total bilateral aid commitments to Ukraine across donors in € billion (covering 24 January 2022 to 15 January 2023), Source: <https://cepr.org/>

6. Conclusion

The Ukrainian war has demonstrated the importance of military logistics in humanitarian crises. The challenges faced during this conflict have highlighted the need for effective coordination, communication, and cooperation between military forces and humanitarian organizations. By examining the lessons learned from the Ukrainian war, policymakers, military leaders, and humanitarian actors can gain valuable insights into how to improve future responses to similar crises. This paper has explored some of the key challenges faced by military logistics in the context of a humanitarian crisis and provided recommendations for addressing these challenges. Overall, military logistics plays a critical role in ensuring the timely and efficient delivery of humanitarian aid during times of crisis.

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