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Original Article

Future War Geographies: Lessons from the Russia-Ukraine Conflict and Their Implications for India's Military and Strategic Planning

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Abstract

The Russia Ukraine conflict (which began in February 2022) will reshape the geography of all future wars using hybrid warfare, technology and geopolitics to fight in contested areas. this paper takes a lesson learned approach to the conflict by looking at the impact of drones, cyber operations, city fighting and an economy under sanctions on India's military and strategic thinking about its conflicts with China and Pakistan along its borders. using geopolitical and strategic analysis, it identifies how Ukraine is employing asymmetric defense tactics and how Russia's logistics problems show that India needs to develop flexible doctrine for mountain and maritime environments. key findings are that the conflict exposed weaknesses in traditional forces which led India to pursue drone capability enhancements, cyber resiliency and multi domain operations while pursuing strategic autonomy through partnerships. however, India's challenge in implementing these concepts includes technological gaps and alignments between China and Russia; each of these could lead to escalation in the Himalayas or Indo-pacific. the paper concludes that incorporating these lessons into India's strategic thinking will support India's deterrent capabilities and contribute to theoretical models of future warfare in multipolar environments. the paper also outlines several implications including new training programs, alliance options, and investment in ai driven systems to create resilient geographies. overall, this paper provides strategic guidance to mid-tier nations navigating the rapidly changing landscape of conflict.

Keywords: *Future War Geographies, Russia-Ukraine Conflict, Hybrid Warfare, Drone Technology, Cyber Operations, India's Military Planning, Strategic Autonomy, Border Disputes, Multi-Domain Operations, Geopolitical Maneuvering*

Introduction

Geopolitics of War are the new frontiers of conflicts; a blend of Spatial/Technological/Strategic dimensions of battles; from old-fashioned battlefields to Cyber/Space/Urbanscapes, etc., (MANOLACHE, 2023). The Russia-Ukraine conflict is an example of this paradigmatic shift, where Russia has engaged in asymmetric tactics, Information Warfare, Economic Sanctions, and Conventional Invasion and thus transforming global Military Paradigms (CROMBE & NAGL, 2023). These developments have important implications for India's military and strategic planners who face prolonged border tensions with both China at the Line of Actual Control (LAC) and Pakistan in Kashmir. The purpose of this paper is to analyze lessons learned from the conflict — such as drones' effectiveness in reconnaissance and strikes, cyber disruptions, and operational challenges in contested terrain — and assess them against the backdrop of their implications for India. The paper will argue that by employing adaptive strategies, India may improve its deterrence capabilities in high-altitude and maritime geographies while preserving strategic autonomy amidst multiple polar tensions. From a theoretical perspective, the study employs geopolitical realism and hybrid warfare theories, and highlights how spatial elements shape outcomes. Methodologically, the study will employ an interdisciplinary approach incorporating conflict analyses, strategic assessments and policy documents from a variety of sources.

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Contributions will be derived from a qualitative analysis of future warfare for emerging powers and recommendations for doctrine reform. Through an examination of conflict dynamics, extracted lessons, implications for India, challenges, and potential forward strategies, the paper illustrates the need for India to engage in proactive adaptation within the context of fluid geographies.

Background: The Russia-Ukraine Conflict and Evolving War Geographies

Russia invaded Ukraine in 2022. The Russian military attempted to quickly capture territory however the Ukrainian military continued to fight for extended periods of time. The area of the conflict includes cities (e.g., Kyiv) in addition to large areas of the steppes (large plains) along with maritime areas of the Black Sea. This represents how hybrid warfare is a combination of kinetic warfare (the use of weapons to create physical damage) and non-kinetic warfare (such as information operations and other non-violent forms of warfare) (Fedorchak, 2024). Russian advances were initially halted due to supply chain issues in muddy terrain as well as through ambushes in urban environments. The Ukrainians utilized drones and anti-tank systems supplied by western nations to conduct asymmetric warfare (Fedorchak, 2024).Cyber-attacks have disrupted various forms of Ukraine's infrastructure; drone swarms are being used to provide precise strikes; and economic warfare was conducted through the imposition of financial sanctions on Russia thereby isolating it economically. Social media has been used to amplify the respective narratives of both parties; and it has also shaped public opinion globally. NATO provided support for Ukraine which created a multipolar issue; specifically, it exposed the alignment of China and Russia as opposed to the Western alliance.For India, it reflects its own geopolitical balance between supporting Russia economically and taking a neutral stance in United Nations voting. Additionally, it also relates to India's struggle to maintain a balance between the incursions by China at the Line of Actual Control (LAC) and the rivalries in the Indo-Pacific region. The conflict has shown that a seemingly superior force can be successfully challenged by a less capable force utilizing geography and asymmetric warfare tactics (Ladwig, 2015). Therefore, this demonstrates the necessity for countries to assess whether they should re-evaluate their doctrine for maintaining air superiority and therefore the importance of offensive and defensive counter-air operations, situational awareness and interoperability (Press, 2024). The examples illustrate how the geography of war has evolved from linear frontlines to multi-domain battlespaces, where technology and alliances are determining factors in the outcome of a battle. These lessons are significant in relation to India's ability to maintain resilience across the diverse geographic areas of its Himalayan border and its maritime interests. Critical geopolitics considers such geographic areas to be socially constructed and influenced by the power dynamics and narratives of each nation.

Key Lessons from the Russia-Ukraine Conflict

Future war geography will draw several lessons from the war in Ukraine. First, drones and unmanned systems have completely changed the way we conduct reconnaissance and strike missions: The Bayraktar TB2 drone used by Ukraine destroyed Russian tanks, and demonstrated that an asymmetric approach could be effective using low-cost tactics in open terrain (Kroenig & Starling, 2023). Second, cyber warfare has become a key component of how we wage war: Russian hackers had already compromised Ukraine's grid prior to their invasion, highlighting the vulnerability of digital assets and expanding battles into virtual space (Hackett & Nagl, 2024). Third, urban and attrition warfare: The prolonged battles fought in Mariupol showed conventional forces are limited in fighting in built-up environments, and that defenders who have knowledge of the area can take advantage of this limitation. The logistical challenges faced by Russia when it extended its supply lines demonstrate the difficulties of sustaining a military in a hostile geography (Martin et al., 2023). Fourth, economic and sanctions warfare: The measures taken by Western nations against Russia economically crippled Russia's economy, and demonstrate the role that non-kinetic coercion plays in hybrid conflicts (Kepe, 2023). Fifth, alliance and multipolar conflict: NATO backing for Ukraine increased Ukraine's capabilities, but also shows that a country may have to depend on others to protect itself; Russia's recent turn to China and India highlights these dependency risks. Disinformation, which is a form of information warfare, has been used to shape narratives about the war, and impact the morale of those engaged in it, as well as the level of support provided to Ukraine internationally (Paziuk et al., 2025). These lessons indicate a transition to a geography of war that is highly integrated and technology driven, and one in which speed, agility, and resiliency replace mass. For countries in the Global South, they suggest developing innovative approaches based on what each country can do independently in light of great power competition.

Implications for India's Military Planning

The conflict's lessons have significant implications for India's military strategy in both Himalayan and maritime regions. With regard to drone warfare, India will be required to rapidly develop and purchase indigenous systems such as the MQ-9B Predator to counter China's drone swarms along the Line of Actual Control, due to China's ability to use drones to conduct surveillance at high altitudes (Chaari, 2025). Cyber-resilience will be critical for India's cyber

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command, which will require India to implement the same defensive measures that were implemented by Ukraine to defend against potential Chinese hacking attempts using artificial intelligence for threat detection (Shrivastav, 2025).
The lessons learned about urban and mountain combat in Ukraine can be applied to India's military doctrine in the Kashmir region and the eastern sector of the country. Specifically, Ukraine has demonstrated that it can utilize guerrilla warfare tactics to great effect, and this suggests that India's infantry could benefit from having portable anti-tank weapons to fight in rugged terrain and attrition style battles. Logistical lessons can also be gleaned from the conflict in Ukraine, and specifically how the failure of the Russian military to establish an effective logistics chain in the Himalayas highlighted the need for India to invest in all-weather infrastructure such as the Sela Tunnel. Additionally, the conflict highlights the need for India to diversify its military alliances and partnerships beyond its traditional suppliers to reduce the risk of being dependent on a single nation for key defense technologies (Crombe & Nagl, 2023).
With regard to economic warfare, the conflict also suggests that India must consider creating a diversified network of trade to ensure that India is able to continue importing critical goods such as oil from Russia, while minimizing the risk of secondary sanctions or other negative consequences (Crombe & Nagl, 2023). From a partnership perspective, the conflict also highlights the importance of multi-alignment, including the deepening of India's relationships with other members of the Quadrilateral Security Dialogue (Quad) in order to provide additional assurance of maritime security in the Indo-Pacific region, while simultaneously continuing to rely on Russia for key defense supplies.Finally, the conflict also underscores the need for India to create counter-disinformation units to combat information operations and disinformation campaigns launched by adversaries such as China, based on the success of similar efforts in Ukraine (Rajagopalan, 2023). Overall, these lessons are likely to lead to a shift in India's military doctrine toward multi-domain operations, and emphasize the need for increased flexibility and adaptability in future combat environments.

Implications for India's Strategic Planning

In terms of strategy, the conflict will inform how India positions itself in a multipolar world. With regards to the increasing cooperation between China and Russia through the means of military exercises, this increases the threat of a two-front war for India; thus, it is necessary that India develops air-land-sea doctrine that can be used across all services in an integrated manner. Additionally, lessons learned by India regarding sanctions (i.e., sanctions imposed upon India by the West) support the need for self-sufficiency through the Atmanirbhar Bharat initiative, which seeks to reduce dependency on foreign imports for key technologies (Kashin, 2023). Geopolitically, the asymmetric successes of Ukraine inspire India to develop hybrid defensive strategies against superior foes such as China, with the focus being on using denial operations to impede Chinese capabilities in the Indian Ocean. India may leverage multilateral organizations such as the Shanghai Cooperation Organization to counterbalance China, however there are still risks associated with the alignment of these organizations. Therefore, strategic planning should include scenario based wargaming and simulate the invasion of Ukraine in Ladakh (Tarapore, 2023). Economically, India should seek to diversify its partnership base in order to reduce disruptions caused by global issues. In addition, India's participation in the G20 provides the country with a platform to help mitigate disruptions to the global economy caused by the conflict.
The conflict also highlights the potential for a nuclear threshold: specifically, the sabre-rattling of Russia highlights the importance of escalation management in India's "no first use" policy. This has implications for space as well: if India does not enhance the capability of its anti-satellite systems to counter the satellite threats faced by Ukraine, then India could potentially be vulnerable to similar types of threats in the future. Therefore, strategic planning needs to consider the evolving geography of the region in order to ensure that India maintains a sustainable deterrent posture (Saxena, 2023).

Challenges and Recommendations

Challenges consist of technology gaps: India's unmanned aerial vehicle (UAV) manufacturing is behind that of China, and this could lead to an asymmetric threat environment. The increased cooperation between China and Russia will only make it harder for India to plan for a multi-directional threat environment. India has had challenges in implementing reform due to budget constraints, as well as the complexities of a large bureaucracy. Recommendations to address these challenges include prioritizing indigenous defense manufacturing, simplifying the procurement process, and developing a collaborative model between industry, academia, and the military to increase innovation and capability development (Saaida, 2024).India should rapidly scale its own UAV capabilities to be able to respond to lessons learned from the Ukraine conflict about using mass drone attacks to conduct high-density swarming UAS operations, and to do so India needs to invest in advanced manufacturing technologies such as additive manufacturing and automated assembly to produce cost effective, sophisticated drones (Crombe & Nagl, 2023; Rajagopalan, 2023).India must also develop strategies to protect its critical infrastructure from cyber-attacks, based upon lessons learned from Ukraine's experience with Russian cyber warfare in order to create robust defensive and offensive cyber capabilities (Press, 2024).Another key recommendation for India is to establish a national defense mobilization plan,

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which would require conducting regular assessments of domestic industrial capacity during times of conflict, similar to China's annual surveys, and to use this assessment to stimulate economic growth and job creation (Kashin, 2023).In terms of India's nuclear deterrent, India should establish clear escalation control mechanisms and communicated red lines with respect to China in the event of a regional conflict in order to avoid miscalculations and unintended consequences (Kroenig & Starling, 2023).Finally, given the rapidly changing nature of India's security environment, India may need to re-evaluate its participation in international non-proliferation treaties as a result of the modernization of neighboring countries' nuclear arsenals (Sarmah, 2024).

Conclusion

The Russia/Ukraine conflict has clearly shown the characteristics of future wars in terms of geography, which has changed the way we think about conflict into new, complex environments in which technology, geography and politics influence the outcome of the conflict. This study has illustrated several key lessons, including the destructive potential of large numbers of drones (swarm attacks) and cyber operations; the dangers of logistical overreach in urban and rural environments and the coercion caused by economic sanctions, all of which provide valuable insight for India's military planning and strategy development. The examples provided illustrate a transition towards hybrid, multi domain conflict, where asymmetry and resilience may be more important than the conventional superiority of forces in combat, which is highly relevant to India's mountainous Himalayan border with China and unstable borders with Pakistan. If India incorporates these lessons into its strategic thinking it could improve its deterrent capability, develop doctrine focused on developing adaptable technologies including AI driven unmanned systems and cyber defences, and strengthen its logistical support capabilities to enable sustained operations in difficult terrain. Key conclusions include both opportunities and necessities: in particular, the conflict highlighted the importance of information warfare and alliance building for India, providing strong evidence for the need to develop effective counter-disinformation strategies and expand its range of partners (e.g., through the QUAD and BRICS) to protect its independence in a world where Sino-Russian alignment is increasingly dominant. Economic sanctions demonstrate the vulnerability of supply chains, encouraging self-sufficiency initiatives such as "Atmanirbhar Bharat" to reduce the risk of exposure in possible two-front conflicts. Despite this, there remain many challenges, including technological disparities with adversaries such as China; budget constraints; and the threat of escalation in nuclear shadowed environments, as seen in Russian rhetoric on the use of tactical nuclear weapons. All of these illustrate the need for India to develop the necessary capacity to bridge these gaps, using rapid technological development, joint wargaming and international cooperation to navigate multipolar dynamics without losing sovereignty. In addition to implications for India's national security, this conflict contributes to broader theoretical debates on the strategic role of middle powers in exploiting the complexities of future war geographies to achieve asymmetric advantage in competitive environments. Therefore, India needs to move away from being reactive and become proactive in developing integrated strategies, including the space and maritime domains, particularly in the Indo-Pacific region, to counter grey zone activities. Policymakers should therefore prioritize investment in emerging technologies, promote interservice coordination to develop multi domain operational capabilities, and seek to prevent conflict through diplomacy to avoid costly, devastating, conflicts, drawing on the example of Ukraine's tenacious defence model. These responses do not simply ensure national security, they also enable India to be a major player in creating a fairer, multipolar world order, based on technological innovation and forward-looking vision, and thus to survive in the long term. Looking ahead, the ability of India to learn from the lessons of this conflict will be critical in determining its effectiveness in future conflicts. In other words, as tensions between states continue to increase, potentially with the introduction of AI-enabled warfare, or competition for resources, India's ability to apply the lessons learned will be what determines whether it is successful or unsuccessful in defending itself in the future. Ultimately, the saga of the Russia/Ukraine conflict demonstrates that war geographies are no longer fixed, but rather flexible, and require India to be agile and visionary if it is to overcome the threats of hybrid warfare.

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