



Public Policy and National Defense in Border Area Management: An Analysis of National Security Strategy

Wisnu Saputro^{1*}, Asep Adang Supriyadi¹, Bambang Kustiawan¹, Robby Mochammad Taufik¹, Guntur Eko Saputro¹, Ghazalie¹

¹ Republic of Indonesia Defense University, Indonesia

*Corresponding author email: wisnu.saputro@doktoral.idu.ac.id

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ABSTRACT

Border area management plays a strategic role in strengthening state sovereignty and supporting an adaptive national defense system. This article analyzes the interconnection between public policy and national defense strategies in the context of Indonesia's border management, using a qualitative-descriptive approach based on literature review and theoretical analysis. In addressing multidimensional threats such as infiltration, smuggling, terrorism, and geopolitical crises, border management must be integrative, adaptive, and sustainable. The analysis reveals that public policy holds a central role in shaping governance frameworks that support infrastructure development, basic services, and community empowerment in border regions. Meanwhile, national defense strategies must adopt advanced technologies such as drones, data-based surveillance systems, and artificial intelligence (AI) to enhance threat detection and response effectiveness. Synergy between central government, local authorities, and local communities through a multilevel governance approach proves critical in establishing a responsive border management system. Furthermore, the integration of economic, technological, and defense dimensions forms the foundation for transforming border areas into not only defense zones but also centers of economic growth and strategic diplomacy. This article recommends strengthening data-driven policies, strategic innovation, and international cooperation to build a robust, inclusive, and globally competitive national security system.

ABSTRAK

Pengelolaan kawasan perbatasan memiliki peran strategis dalam memperkuat kedaulatan negara dan mendukung sistem pertahanan nasional yang adaptif. Artikel ini menganalisis keterkaitan antara kebijakan publik dan strategi pertahanan nasional dalam konteks pengelolaan perbatasan Indonesia dengan menggunakan pendekatan kualitatif-deskriptif berbasis kajian literatur dan analisis teoretis. Dalam menghadapi ancaman multidimensional seperti infiltrasi, penyelundupan, terorisme, dan krisis geopolitik, pengelolaan perbatasan harus dilakukan secara integratif, adaptif, dan berkelanjutan. Hasil analisis menunjukkan bahwa kebijakan publik memiliki peran sentral dalam membentuk kerangka tata kelola yang mendukung pembangunan infrastruktur, pelayanan dasar, dan pemberdayaan masyarakat di wilayah perbatasan. Sementara itu, strategi pertahanan nasional perlu mengadopsi teknologi maju seperti drone, sistem pengawasan berbasis data, dan kecerdasan buatan atau artificial intelligence (AI) untuk meningkatkan efektivitas deteksi dan respons terhadap ancaman. Sinergi antara pemerintah pusat, pemerintah daerah, dan masyarakat lokal melalui pendekatan tata kelola multilevel terbukti penting dalam membangun sistem pengelolaan perbatasan yang responsif. Selain itu, integrasi dimensi ekonomi,

teknologi, dan pertahanan menjadi fondasi bagi transformasi kawasan perbatasan, tidak hanya sebagai zona pertahanan, tetapi juga sebagai pusat pertumbuhan ekonomi dan diplomasi strategis. Artikel ini merekomendasikan penguatan kebijakan berbasis data, inovasi strategis, dan kerja sama internasional guna membangun sistem keamanan nasional yang tangguh, inklusif, dan berdaya saing global.

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INTRODUCTION

Border areas play a strategic role in maintaining a nation's sovereignty and territorial integrity. As the outermost demarcation separating national jurisdiction from other countries, borders are crucial for controlling the movement of people, goods, and potential military and non-military threats. In the context of national defense, borders serve as early detection zones for external threats, including infiltration, smuggling, transnational crime, and border conflicts (Bergmann & Müller, 2021). These areas also have important roles in economic, social, and cultural development, especially for local communities often marginalized in terms of infrastructure and public services.

Therefore, managing border areas is a strategic manifestation of the state's effort to uphold sovereignty and strengthen national resilience. From a defense strategy perspective, borders are not just territorial boundaries but geostrategic spaces where public policy intersects with defense operations. In this context, public policy must be cross-sectoral and grounded in the national defense doctrine, which emphasizes synergy between military defense and civil development as part of a holistic national security strategy (Aarons, Ehrhart, & Farahnak, 2014).

Ineffective border management can open gaps for sovereignty violations and weaken the nation's deterrence capacity. Thus, borders must be managed through public policies that are integrated with national defense strategies, including physical development, strengthening military and civil capacities, and the use of technology for surveillance and security. Border management is not solely about security; it is also about how the state affirms its presence and reinforces national stability amid ever-changing global dynamics (Sweeney & Winn, 2022).

In the Indonesian case, strategic leadership at the implementation level plays a key role in ensuring that public policies in border areas are effectively and sustainably operationalized. Aarons et al. (2014) emphasize that proactive, supportive, and consistent leadership can foster an organizational climate conducive to strategy implementation, including national defense strategies. This aligns with the need to develop a strategic climate in border areas that facilitates cross-institutional coordination between military and civilian actors.

Furthermore, the strategic ecosystem approach is also crucial in border management. In a business ecosystem, symbiotic relationships among actors generate collective value that cannot be achieved individually (Kim, Lee, & Han, 2010). This analogy applies to defense, where institutions like the military and related ministries act as flagship entities connecting the national defense network. Interoperability, resilience, creativity, and productivity become indicators of a healthy defense ecosystem that directly influences the effectiveness of border management (Kim et al., 2010).

Lack of integration between public policy and defense strategy will undermine national deterrence at borders and create space for sovereignty threats, whether by infiltration or cross-border tensions. Therefore, policy development aligned with the principles of total defense and reinforced strategic leadership forms the foundation for building a resilient, adaptive, and long-term-oriented national security system. One relevant approach is cooperative security—a framework that emphasizes cross-institutional and cross-national collaboration in preventing and responding to threats through diplomacy, joint defense, and local capacity building (Delgado Morán, Jiménez Reina, & Jiménez Reina, 2020). This approach has proven effective in maintaining regional stability, especially in border areas prone to cross-border conflict.

Additionally, geopolitical dynamics such as Brexit demonstrate how the absence of strategic actors from regional security frameworks can weaken inter-organizational coordination, as seen in the disrupted EU–NATO relationship following the UK's withdrawal as a "transatlantic bridge" (Ewers-Peters, 2021). This is a crucial lesson: integration of public policy and defense—especially at borders—must account for strategic cohesion in international relations to maintain national security effectiveness.

Moreover, the involvement of non-conventional forces such as natural ecosystems in defense strategy, as shown by how wetlands protect coastal zones from tropical disasters, indicates that effective national security strategies must synergize natural resources and technology (Sun & Carson, 2020). Thus, national security strategies for managing border areas must be integrative, cross-sectoral, and oriented toward sustainable capacity-building to establish defense that is not only militarily robust but also socially and ecologically resilient.

In a world characterized by geopolitical uncertainty, asymmetric threats, and rapid technological advancement, the need for adaptive and comprehensive national security strategies is increasingly critical. National security strategy is not merely a set of reactive policies against threats but a strategic roadmap to safeguard national interests by leveraging all instruments of state power—military, economic, and diplomatic. Strategic planning must be based on continuous innovation, multidimensional analysis, and a systemic approach to increasingly complex and dynamic security challenges (Zhou & Lee, 2023).

Modern national security strategies must respond to non-traditional threats such as cyberattacks, climate change, and global economic instability. Strategic innovation in security is imperative, along with a global push toward technology and data-driven defense. Accordingly, adapting security strategies to digital dynamics and the green economy becomes relevant, as seen in sustainable development integrated with national defense strategy.

Furthermore, national security strategy development must consider the synergy between fiscal policy and technological innovation as part of a smart defense system. Policies such as tax incentives for innovation and the use of information technology in risk management demonstrate that economic and technological power can serve as strategic security instruments (Zheng, Li, & Duan, 2023). Thus, national security strategy analysis must transcend the military sphere and merge into cross-sector policies that prioritize innovation, green economy, and technology as pillars of national strength.

Therefore, in addressing multidimensional national security threats, border area management can no longer be viewed merely as an administrative or territorial issue. Borders are strategic zones with direct implications for sovereignty, territorial integrity, and national deterrence. Public policy in border management must be tightly integrated with national defense

strategy to establish an adaptive, holistic, and sustainable national security system. This requires consolidating economic, technological, and military dimensions into a unified integrated defense strategy framework (Qari, Börger, Lohse, & Meyerhoff, 2024).

National security strategy must address two main dimensions: strengthening state resilience against external threats and optimizing the role of public policy in supporting defense. In this context, analyzing the value of national defense—including public preference for strengthening the defense system—is crucial for designing responsive and publicly acceptable policies. Qari et al. (2024) highlight the importance of understanding the "social value of defense" as part of collective welfare derived from enhanced preparedness and national security.

To build sustainable national security, integration of technological innovation and information-based governance is essential. Lai (2024) emphasizes that leveraging information technology in green economy development and high-quality growth has strategic implications for the defense system, particularly in resource management, risk monitoring, and threat response efficiency. Therefore, national security strategies must embrace digital transformation to reinforce defense posture, especially in border areas vulnerable to non-conventional threats.

The synergy between economic policy and defense becomes increasingly relevant in border area management. Zheng, Li, and Duan (2023) argue that fiscal incentives, such as environmental taxes and innovation support, can enhance the state's capability to build economic resilience, thereby supporting national security stability. This aligns with the defense-development nexus framework, positioning defense as an integral part of national development (Herz, Dawood, & Lage, 2018).

This analysis will discuss how public policies that are not integrated with defense strategies weaken the effectiveness of national security systems, especially in border management, which is vulnerable to infiltration, transnational crime, and geopolitical pressure. Amid global complexity and resource competition, integration of fiscal policy, technological innovation, and strengthened defense governance becomes crucial for boosting national deterrence (Bergmann & Müller, 2021). Furthermore, the discussion will highlight the importance of collaborative security governance, as illustrated by post-Brexit European security dynamics, where uncertainty in cooperation has led to reduced effectiveness and increased internal and external security risks (Sweeney & Winn, 2022).

The core discussion will explore three strategic aspects: (1) the role of public policy in supporting infrastructure and defense systems in border areas; (2) the importance of leveraging innovation and technology to strengthen national security systems; and (3) the impact of synergy between the economy, defense, and international relations on regional stability. This discussion is essential for providing a comprehensive understanding of how national security strategy encompasses not only military aspects but also cross-sector policies, including economic development, diplomacy, and data-driven governance. Thus, border management becomes a strategic instrument in defending sovereignty and enhancing Indonesia's position in the regional security order.

METHODS

This study utilizes a qualitative-descriptive method through an extensive literature review and theoretical analysis. The research focuses on the strategic intersection of public policy and national defense in the context of Indonesian border management, examining it through the lens of national security strategy. Primary data sources include peer-reviewed journal articles, official

government policy documents, international defense strategy frameworks, and relevant academic literature published in the last ten years.

The analytical approach employed is content analysis, emphasizing the identification of key themes, concepts, and patterns related to integrated border governance, multilevel policy implementation, strategic innovation, and defense diplomacy. This is supported by a conceptual framework that integrates the principles of total defense, multilevel governance, cooperative security, and strategic innovation ecosystems.

This study also adopts a multidisciplinary lens by incorporating perspectives from political science, public administration, strategic studies, and international relations to generate a holistic understanding of border management. The analysis is carried out by mapping the interrelationship between economic resilience, technological adaptation, defense policy, and regional cooperation as strategic instruments in building national security.

Findings are synthesized to develop policy recommendations for Indonesia's border governance and to illustrate the potential of border areas not only as defense frontiers but also as economic and diplomatic assets. The methodological rigor lies in the depth of theoretical engagement, cross-sectoral synthesis, and the contextual relevance of the Indonesian geopolitical environment.

RESULTS AND DISCUSSION

National defense is an increasingly complex strategic issue amid geopolitical developments and the changing nature of global and regional threats. This discussion specifically highlights the crucial role of public policy and national defense strategies in managing border areas as a key element in strengthening the nation's deterrence capability. The complexity of current threats demands a more integrative and responsive approach—not limited to military aspects alone but also involving economic dimensions, diplomacy, and the comprehensive use of innovation and technology.

As reflected in cross-sectoral innovation management practices, the success of defense policy and border management greatly depends on inter-agency coordination and the utilization of strategic data to support decision-making (Gomes et al., 2021). The principles of Japan's Strategic Innovation Promotion (SIP) project demonstrate that the success of long-term programs, including in the security sector, requires consistency in planning, performance-based evaluation, and sustained multi-stakeholder collaboration (Japan Institute of Metals, 2020). A similar approach is highly relevant in the context of national defense, particularly in managing border areas that serve as the frontline of sovereignty and national influence.

One of the main challenges in implementing national security strategy is the frequent mismatch between policy ambition and on-the-ground realities, which leads to institutional incapacity to respond effectively to crises (Bergmann & Müller, 2021). This phenomenon is known as "failing forward"—a cycle of partial reform that often fails to address the root causes comprehensively, thus requiring repeated policy corrections over the long term (Bergmann & Müller, 2021).

Furthermore, this discussion emphasizes the importance of understanding the evolving threats in the "grey zone," involving a combination of military and non-military instruments as well as hybrid activities that fall below the threshold of open conflict (Rauta & Monaghan, 2021). In this context, border areas are not only zones of conventional military defense but also become battlegrounds for informational, economic, and political confrontation that require robust integration between public policy and defense strategy.

Additionally, this analysis explores how synergy between economic instruments and defense, as well as international collaboration, becomes a determining factor in creating regional stability. This is vital because geopolitical dynamics indicate that regional stability is closely

linked to the ability of states to collaborate in facing shared threats, as seen in the transatlantic security relationship between the European Union and the United States in various regions, including Africa (Rieker, 2022).

Overall, this discussion aims to provide a comprehensive analysis of the significance of border area management within a holistic and integrative national security strategy framework. This analysis not only seeks to identify existing challenges and weaknesses but also offers strategic recommendations for the development of more effective, responsive, and sustainable public and defense policies in the future.

1. The Role of Public Policy in Supporting Infrastructure and Defense Systems in Border Areas

Public policy plays a fundamental role in shaping a nation's defense structure, particularly in the context of border regions. Defense infrastructure, such as security posts, surveillance systems, and logistical facilities, cannot be optimally developed without supportive policies that ensure resource allocation, integrated regulations, and inter-agency coordination frameworks. The absence of comprehensive policies in border areas can lead to developmental disparities and security vulnerabilities (Bergmann & Müller, 2021). Therefore, public policy formulation must align with the principle of total defense, which emphasizes collaboration between military and civilian components in safeguarding sovereignty and order at the borders. This underscores the importance of the state's role not only in building military strength but also in enhancing the social and economic aspects of border communities as part of a sustainable national security strategy.

The role of public policy in supporting infrastructure and defense systems in border areas holds significant strategic importance within the context of national security. Borders are not merely geographical lines delineating state sovereignty but also serve as the first line of defense determining the nation's deterrent capability against both external and internal threats. Targeted and comprehensive public policies can strengthen the resilience of critical infrastructures such as military facilities, transportation, communication, energy, and logistics, all of which directly contribute to national resilience (Majchrzak, Michalski, & Reginia-Zacharski, 2021).

In a broader context, public policy must integrate various sectoral interests with strategic approaches to national defense. For instance, Poland faces significant risks related to large-scale energy supply disruptions that could destabilize national and regional stability. In this context, public policies are directed toward enhancing crisis management systems to address prolonged energy disruptions, which, if neglected, could undermine various aspects of societal life and weaken regional stability (Majchrzak et al., 2021).

Furthermore, the European Union's experience with the concept of open strategic autonomy highlights the importance of public policy in reducing external dependencies and strengthening strategic independence. Through this concept, public policies aim to enhance a country's self-reliance in facing supply chain disruptions, dependencies on other nations, and geopolitical risks (Miró, 2023). Implementing such policies is also relevant for managing border areas in Indonesia, which require integration between economic, technological, and defense policies to maintain national stability.

Additionally, public policy must leverage innovation and technology to support national security systems at the borders. The deployment of advanced technologies such as drones, sensors, and surveillance systems based on data and artificial intelligence (AI) is imperative. These technologies not only enhance the effectiveness of border surveillance but also minimize vulnerabilities arising from illegal infiltration, smuggling, or terrorist attacks (Lai, 2024). In the digital era, real-time surveillance capabilities and AI-based predictive analysis enable earlier threat detection and more rapid and accurate decision-making by security authorities.

Moreover, these technological systems can be integrated into national and regional networks to strengthen cross-border cooperation in addressing shared threats. The European Union's experience in building integrated border surveillance systems demonstrates that cross-

country data exchange and monitoring can enhance collective responses to transnational threats (Håkansson, 2024). The use of advanced technology also supports defense budget efficiency by reducing the need for large physical personnel deployments in remote areas. Therefore, the application of technology in public policy serves not only as an operational aid but also as a strategic instrument in shaping an intelligent and adaptive defense posture to contemporary threat developments.

From an international relations perspective, public policy should also aim to strengthen border diplomacy, including security cooperation with neighboring countries, joint patrols, and consultation forums to resolve cross-border disputes peacefully. This approach has been implemented in the Nordic region, which, despite not being part of formal alliances, emphasizes operational military collaboration to enhance regional stability (Friis & Friis, 2022). Furthermore, strengthening human resource capacity and data-based governance becomes crucial. Governments need to equip defense and civilian personnel with training, facilities, and integrated information systems to improve border management effectiveness. Data-driven and evaluation-based public policies can also enhance adaptive resilience in facing multidimensional threats, including global crises such as pandemics (Weible et al., 2020).

Additionally, Sweden's example shows that modernizing the conscription system with a gender equality approach and liberal individualism values can enhance the effectiveness of the national defense system while strengthening public legitimacy for defense policies (Strand, 2024). In another context, the conflict in Ukraine illustrates the importance of coordinating public and defense policies at the regional level and the urgency for each country to prepare adaptive defense strategies against both conventional and hybrid conflict threats (Håkansson, 2024).

In conclusion, the role of public policy is crucial in supporting infrastructure and defense systems in border areas. Integrative, innovative, and adaptive policies not only strengthen border security but also foster broader political, social, and economic stability. This positions public policy as a strategic element in upholding national sovereignty and supporting the sustainability of national security.

From a national security perspective, border areas hold a strategic position as the front line of defense and a vulnerable zone frequently targeted by various types of threats—both traditional and non-traditional. In this context, public policy serves as a primary pillar in establishing a defense system that is strong, adaptive, and resilient in facing contemporary security challenges. National security is not determined solely by military strength, but also by the effectiveness of public policy governance that can integrate infrastructure development, resource management, and defense diplomacy.

Public policies that support the development of defense infrastructure in border areas have a deterrent effect on potential external aggression. Investments in surveillance facilities, military logistics, defense communication systems, and emergency response centers not only enhance deterrence but also enable rapid responses to threats. These infrastructures also expand the state's presence in border regions, which both symbolically and operationally strengthens national sovereignty (Majchrzak et al., 2021).

Furthermore, from the national security standpoint, public policy plays a role in strengthening the country's resilience against non-military threats such as economic infiltration, energy disruption, and hybrid threats. This resilience is realized through data-driven, long-term-oriented policy planning that involves cross-sectoral actors. The European Union's experience during the Ukraine conflict demonstrates that policies integrating economic, energy, and defense strengths can increase strategic autonomy and bolster geopolitical positioning (Håkansson, 2024).

Additionally, within the framework of human security, public policy must generate a sense of safety among border communities through the provision of basic services, economic empowerment, and community involvement in the total defense system. When border communities are prosperous and feel protected by the state, internal threats such as separatism or transnational crime can be minimized. In this sense, public policy contributes directly to political and social stability at the local level, which is a vital component of national security.

From a governance perspective, strengthening coordination between the Ministry of Defense, the Ministry of Home Affairs, and other security institutions is essential. A whole-of-government and whole-of-society approach in public policy will create a national security system that is inclusive and sustainable. This aligns with the Nordic region's military cooperation practices, which emphasize operational collaboration to overcome resource limitations and reinforce collective resilience (Friis & Friis, 2022).

In emergency situations, such as pandemics or natural disasters, public policy also ensures that the border defense system can operate efficiently. Early warning systems, crisis protocols, and technology integration must be part of public policy to anticipate potential instabilities that could impact national security broadly (Weible et al., 2020).

From the standpoint of national security analysis, public policy is not merely an administrative instrument but a strategic foundation for strengthening national defense and sovereignty, particularly in border regions. The integration of infrastructure development, technological innovation, social empowerment, and defense diplomacy will foster a robust national security system capable of facing the dynamics of global threats.

2. *The Utilization of Innovation and Technology in Strengthening National Security Systems*

Innovation and technology have become the backbone in creating resilient security systems in the digital era. The use of information technology for border surveillance, early detection, and risk management provides strategic advantages in responding to asymmetric threats such as smuggling, cyberattacks, and transnational terrorism. The European Union's experience in strengthening security and defense policies through technology, such as integrated border monitoring systems, demonstrates how digital transformation can enhance national defense effectiveness. In the context of Indonesia, strengthening data-driven security governance, the use of drones, maritime radar, and AI-based intelligence systems can serve as strategic breakthroughs in enhancing surveillance of vast and dispersed border areas.

Innovation and technology play a central role in strengthening national security systems, especially in facing increasingly complex and multidimensional threats in border areas. In the era of digital transformation, public policies are required to be responsive to the development of strategic technologies to improve the effectiveness and efficiency of national defense. One key application is the use of drone-based surveillance systems, advanced sensors, and artificial intelligence (AI) that enable early detection of potential threats such as smuggling, infiltration, or non-conventional attacks.

The ability of technology to collect, analyze, and present data in real-time offers advantages in making swift and accurate decisions in the field. The application of machine learning systems in the health sector, such as early detection of septic shock, serves as evidence that similar models can be adapted in security systems, for instance, to detect suspicious movements or terrorist threats predictively and data-driven. This underscores the importance of developing AI-based decision support systems that support rapid and integrated defense responses.

Furthermore, strategic innovation encompasses not only technology but also leadership approaches in defense and security organizations. The utilization of strategic innovation management (SIM), as applied in the business sector—through synergy between product innovation, technological capabilities, and relationships with strategic partners—can be adopted to support the sustainability of defense systems. The industrial sector's experience in implementing SIM indicates that integrated innovation management will enhance competitiveness and organizational performance sustainably.

Moreover, the utilization of high-tech data infrastructure and communication networks is imperative to support the integration of border surveillance systems across agencies and countries. In this context, the experience of developed countries in the Asia-Pacific region shows that strategic innovation orientation combined with transformational leadership can drive the

success of technology-based security projects, strengthen connectivity, and promote adaptive defense governance.

Thus, the utilization of innovation and technology not only improves operational efficiency in border surveillance and defense but also creates a national security system that is resilient, predictive, and ready to face global and regional disruptions sustainably.

Challenges

The utilization of innovation and technology in national security systems, despite offering many strategic advantages, faces several serious challenges. First, the primary challenge lies in the limited technological infrastructure in many border areas, especially in remote regions, which hinders the implementation of advanced surveillance systems such as drones, AI-based sensors, and real-time communication networks. This is exacerbated by budget constraints and dependence on imported technology, making it difficult for the country to achieve innovation-based defense self-reliance.

Second, inter-agency integration and data interoperability present another challenge, particularly concerning cybersecurity and the protection of sensitive data. The implementation of new technologies without robust digital security systems can open vulnerabilities to cyber threats that jeopardize national security. Third, resistance to change within security institutions and the low capacity of human resources in managing advanced technology also serve as significant obstacles.

Opportunities

Despite facing challenges, the utilization of innovation and technology also opens up significant strategic opportunities. First, technology enables high efficiency in border surveillance, early detection, and rapid response to threats, thereby significantly enhancing the country's deterrence capability. The use of AI and predictive analysis systems provides advantages in creating security systems that are not only reactive but also proactive and adaptive.

Second, digital transformation in security systems creates opportunities for the development of the national defense industry through local research and development (R&D) of technology. This aligns with strategies for technological self-reliance and the strengthening of the defense economy in the long term. Third, the potential for international collaboration in defense technology also presents opportunities for technology transfer and the enhancement of human resource capacity. Fourth, the implementation of data and analytics-based technological innovation opens opportunities for strengthening transparent, accountable, and evidence-based security governance, while also increasing public trust in the country's defense system.

The utilization of innovation and technology in national security systems, particularly in border areas, is a strategic necessity that cannot be postponed. Advanced technologies such as drones, sensors, and AI-based data surveillance systems have proven capable of enhancing the effectiveness of threat detection and response, while also minimizing vulnerabilities to infiltration, smuggling, and other non-conventional threats. Public policies supporting this innovation must be designed comprehensively, not only to strengthen defense capacity but also to support the development of an adaptive, efficient, and sustainable national security system.

Although there are challenges in terms of infrastructure, interoperability, and limited human resources, technological advancements offer broad strategic opportunities, ranging from operational efficiency to the strengthening of domestic technological self-reliance. Strategic innovation in defense also promotes increased inter-agency and international collaboration, as well as strengthens data-based security governance that is transparent and accountable. Thus, the integration of innovation and technology into defense policies becomes a key element in building a resilient, modern national security system ready to face future challenges. In this context, the integration of cutting-edge technologies, such as artificial intelligence and data-based surveillance systems, has proven to enhance early detection and response to systemic threats in various strategic sectors. Evaluations of innovation in health systems indicate that the application of prediction-based technology and early intervention can accelerate decision-making, improve resource efficiency, and strengthen overall system resilience. This approach can be adapted in

defense policies to support border management, strengthen command systems, and facilitate real-time information-based decision-making.

Furthermore, the integration of strategic innovation also supports the development of national technological self-reliance by encouraging the development of local solutions that align with domestic needs and challenges. This aligns with global efforts to enhance the efficiency and sustainability of strategic systems through technology optimization.

3. *Synergy of Economy, Defense, and International Relations for Regional Stability*

An effective national security strategy does not solely rely on military strength but emphasizes the synergy between economic policy, defense, and diplomacy. This synergy fosters comprehensive national resilience, enabling a country to maintain economic and political stability while strengthening its position in international relations. Zheng, Li, and Duan (2023) assert that fiscal policies supporting innovation, such as tax incentives for research and defense technology, significantly contribute to the development of a sustainable defense system. In the global context, economic and defense relations also serve as strategic diplomatic tools to build alliances and partnerships that support regional stability. This is evident in the dynamics of EU–NATO post-Brexit, where such synergy determines the effectiveness of regional security.

The synergy between economy, defense, and international relations plays a strategic role in creating sustainable regional stability. Fundamentally, strengthening the defense sector is inseparable from national economic conditions and the dynamics of international relations, especially in today's multipolar era. Defense investments, beyond enhancing military deterrence capacity, also contribute to economic growth through technological innovation and job creation in the defense industry sector. This approach, known as the defense-development nexus, promotes the utilization of the defense sector as a catalyst for national development while reinforcing the country's strategic position in global affairs.

Economy and international relations are closely interconnected and mutually reinforcing, forming the primary foundation for creating a nation's stability, national strength, and global influence. From a strategic perspective, economic power serves as a principal instrument in foreign policy, where a country leverages its economic capacity to build alliances, strengthen diplomacy, and achieve strategic objectives without military intervention. Economy functions as an effective soft power tool in enhancing a country's bargaining position in international forums, whether through trade, foreign investment, development aid, or multilateral cooperation.

Conversely, stable and mutually beneficial international relations create a conducive environment for national economic growth. Regional stability, market openness, and inter-country trust are crucial prerequisites for economic expansion, technology transfer, and strengthening national economic resilience. Countries with robust diplomatic networks tend to have better access to global markets and foreign capital and are more capable of facing economic disruptions due to conflicts or geopolitical tensions.

Furthermore, in the context of national security, the economy also serves as an instrument of influence and control through economic sanctions, embargoes, or trade diplomacy. Countries with high economic dependence on external partners are vulnerable to pressure in foreign policy decision-making. Therefore, strategic economic independence is necessary to support autonomous and sovereign foreign policies. Conversely, through effective international relations, a country can strengthen strategic economic cooperation to enhance national resilience in facing global competition.

From the perspective of international relations, this synergy forms the foundation for building inter-country trust and promoting regional defense cooperation. When economic and defense diplomacy progress concurrently, a country possesses a stronger bargaining position in confronting geopolitical threats while maintaining regional stability. In the increasingly politicized globalization context, a country's ability to maintain strategic autonomy in economic

and defense policies becomes crucial in addressing the fragmentation of global governance and the competition among major powers.

Moreover, robust defense creates public goods in the form of security, whose value is felt not only domestically but also by neighboring countries with economic and security interdependence. This reinforces the argument that strengthening the synergy between economy, defense, and international relations is oriented not only toward sovereignty but also toward contributing to collective regional peace and stability. Therefore, contemporary national security strategies are required to be adaptive to global economic dynamics, responsive to multidimensional threats, and oriented toward international cooperation as part of strengthening regional stability.

The relationship between economy and international relations is mutually influential and serves as a key element in shaping a country's strength and stability. Economy acts as a strategic diplomatic instrument that can enhance a country's bargaining position in global affairs, while stable and structured international relations open opportunities for sustainable economic growth through cooperation, investment, and market integration. Economic independence becomes a crucial prerequisite to support sovereign foreign policies that are not influenced by external pressures.

Conversely, through strong international relations networks, a country can expand its economic influence, secure strategic supply chains, and increase resilience against global shocks. In the context of globalization and geopolitical competition, the synergy between economic power and diplomacy becomes an essential foundation for achieving national strategic objectives, including maintaining security stability and strengthening the country's position at regional and international levels. Therefore, the integration of economy and international relations must be continuously strengthened as part of a sustainable national development and defense strategy. The importance of this integration is also evident in the experiences of countries that have successfully maintained economic performance amid crises, such as the hospitality industry in New Zealand during the COVID-19 pandemic. Collaborative strategies between business actors and the government in maintaining supply chains and economic mobility were key to sustaining competitiveness and social stability. This demonstrates that international collaboration and domestic economic strength mutually reinforce each other in creating a comprehensive national resilience system.

4. Border Management as a Strategic Instrument

Border regions constitute an integral part of a nation's sovereignty, possessing not only geographical significance but also geopolitical, economic, and security importance. In the context of national defense, managing border areas holds strategic dimensions as they serve as the frontline against external threats, including military infiltration, smuggling, illegal immigration, and non-traditional threats such as terrorism and narcotics trafficking. Therefore, border management should not solely focus on physical security but must reflect the synergy of public policy, defense strengthening, and international relations.

An effective border management strategy should be based on an integrative total defense approach, involving all national elements, from the military and civil sectors to local communities. Implementing this strategy necessitates the development of border infrastructure that supports defense mobility, such as integrated surveillance posts, strategic transportation routes, and logistics centers, as well as the utilization of technologies like drones and data-based surveillance systems to enhance monitoring effectiveness.

Furthermore, managing borders as a strategic instrument must consider regional economic dynamics and cross-border relations. As observed in China's public policy regarding strategic resources like rare earth elements, border area management is often employed to strengthen economic leverage and expand regional influence through control over resources and trade

routes. This illustrates that border management is not merely a defense issue but also serves as an instrument of economic diplomacy and geopolitics.

Additionally, strategic border management contributes to regional stability through regional security cooperation and enhancing a country's capacity to respond to cross-border crises. The COVID-19 pandemic highlighted the importance of cross-national policy coordination in responding to global crises, including in border areas that became entry points for disease spread and logistical disruptions. Therefore, border management must encompass a flexible policy framework, responsive to multidimensional threats, supported by technology-based governance and international cooperation networks.

Thus, managing borders as a strategic instrument is not solely focused on security but also serves to strengthen sovereignty, economic stability, and regional influence. Countries capable of proactively and strategically managing their borders will have an advantage in facing global challenges while simultaneously enhancing comprehensive national resilience. This requires the application of strategic innovation and adaptive policies that integrate defense, economic, and social dimensions within a long-term development framework. Experiences from the industrial sector demonstrate that success in enhancing competitiveness and resilience depends not only on physical strength but also on the ability to manage resources, technology, and cross-sector collaboration efficiently and sustainably. Applying the principle of shared value in border management enables the simultaneous creation of economic, social, and security benefits, contributing to strengthening a country's position in the international system.

In the context of globalization and the digital economy, border management must consider supply chain dynamics and regional interconnectivity. Studies on business model innovation in supply chains indicate that integrating technology, adaptive strategies, and public policy can create systemic resilience in facing global disruptions. By applying this principle, border areas become not only defense boundaries but also crucial nodes in international economic and political networks that can enhance national competitiveness.

5. *Strategic Steps in Border Management as a Strategic Instrument*

Effective border management necessitates strategic steps that prioritize not only physical security but also the integration of cross-sectoral policies, technological utilization, and the strengthening of institutional and community capacities. The first step involves enhancing data-driven public policies, where the government employs intelligence, geospatial, and social data to design adaptive and responsive policies addressing threats and potentials at the borders. Second, investing in defense infrastructure becomes a priority, encompassing the construction of security posts, logistics systems, and transportation facilities that support military mobilization. Such infrastructure bolsters deterrence capabilities and operational efficiency of national defense.

Third, integrating innovative technologies like drones, reconnaissance satellites, and artificial intelligence (AI) is crucial in enhancing the effectiveness of surveillance and early detection of cross-border threats. Fourth, implementing multilevel governance promotes synergy among central, regional, and local communities, ensuring coordination and active participation in border management. Fifth, enhancing the capacity of human resources and the military (TNI) should be pursued through continuous training, technological empowerment, and welfare improvements to maintain the effectiveness and motivation of personnel at the borders. The subsequent step involves strengthening border diplomacy and regional cooperation through joint patrols, shared data centers, and inter-country security consultation forums. This is vital for maintaining stability and resolving disputes peacefully.

Empowering the local economy is also essential, through public policies that support small industries, formal trade, and the development of economic infrastructure to enhance the welfare of border communities and reduce social vulnerabilities. Lastly, developing data-driven early warning systems and crisis management is necessary to provide early alerts and rapid responses

to potential threats and crises in border areas. These systems reinforce national resilience and the country's ability to respond to global and regional threat dynamics.

Overall, border management serves as a vital strategic instrument in strengthening sovereignty and national resilience. Border areas are not merely geographical lines but frontline defense zones with interconnected geopolitical, economic, and security functions. In this context, synergy between public policies and defense strategies is imperative to ensure the protection of border regions from both conventional and non-conventional threats, such as military infiltration, smuggling, and terrorism. Beyond physical security, strategic approaches should also encompass the development of defense infrastructure, data-driven governance, advanced technology utilization, community engagement, and international cooperation.

Data-driven public policies are a crucial prerequisite in supporting preventive and responsive measures against cross-border threat dynamics. The use of geospatial information systems and social intelligence enables the formulation of adaptive and contextual policies. This also underscores the importance of policy laboratories in supporting policy innovation based on evaluation and social learning.

Furthermore, the COVID-19 pandemic has demonstrated that cross-country coordination in border management is vital in addressing multidimensional crises, necessitating resilient and coordinated public governance capacities.

Strengthening border measures should also consider economic and social dimensions. Empowering the border community's economy not only enhances welfare but also fortifies social deterrence against vulnerabilities. China's experience in managing strategic resources indicates that border areas can serve as tools for geopolitical negotiation and regional economic influence. Therefore, strengthening institutional capacity, improving human resource quality, and integrating cross-sectoral policies are integral components of border management as a strategic instrument.

In summary, strategic border management can significantly contribute to national stability, reinforce the country's independence, and expand its influence on the international stage. With proper management, border areas become not only defense bastions but also gateways for economic growth, international cooperation, and sustainable national social resilience. In this context, border management requires a strategic approach that is sustainable and adaptive to global changes. An important lesson comes from the industrial sector, where the success of large-scale projects heavily relies on continuous evaluation of performance and process efficiency supporting innovation and sustainable development.

CONCLUSION

In conclusion, border management is a strategic component of state sovereignty, national defense, and long-term national resilience. In the face of multidimensional threats such as infiltration, smuggling, terrorism, hybrid threats, geopolitical tensions, health crises, and climate-related risks, border areas can no longer be managed merely as territorial security zones. Instead, they must be developed through an integrative approach that combines public policy, defense strategy, technological innovation, economic development, and community participation. Public policy plays a crucial role in establishing effective governance frameworks, improving infrastructure, delivering basic services, and empowering border communities. At the same time, national defense strategies must adapt to technological transformation through the use of drones, data-driven surveillance systems, sensors, and artificial intelligence to strengthen early detection and rapid response capabilities. The implementation of multilevel governance is also essential to ensure coordination among central government, regional authorities, local communities, and international partners. Therefore, effective border management requires inclusive, adaptive, data-

based, and sustainable policies. By integrating security, development, technology, and diplomacy, Indonesia's border regions can be transformed from vulnerable peripheral areas into strategic frontlines of national defense, centers of economic growth, and instruments of regional stability. This transformation is essential to strengthen national security and enhance Indonesia's competitiveness in responding to future global challenges.

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