

DEVELOPMENT OF THE LAO CAI BORDER GATE ECONOMIC ZONE

LISIJIE

Thai Nguyen University of Economics and Business Administration

ABSTRACT

Between 2020 and 2024, import and export activities were significantly affected by the Covid-19 pandemic. Despite these disruptions, the Lao Cai Border Gate Economic Zone (BGEZ) maintained the highest trade volume among economic zones in Northern Vietnam. This paper evaluates the development status of the BGEZ during this period, emphasizing the role of infrastructure investment, modernization of customs and trade management, and international cooperation in achieving these outcomes. However, challenges remain, including fragmented warehousing systems and an underdeveloped digital border management platform. Addressing these issues requires targeted policy reforms, improved resource mobilization, and enhanced product quality, thereby strengthening the zone's position as one of Vietnam's eight key economic zones.

Keyword: Border gate economic zone, Lao Cai, trade facilitation, infrastructure development, regional integration.

1. INTRODUCTION

The Lao Cai Border Gate Economic Zone occupies a strategic location as a gateway on the Kunming – Lao Cai – Hanoi – Hai Phong economic corridor. Following recent administrative adjustments, the zone spans approximately 15,930 hectares and encompasses international border gates, industrial parks, logistics hubs, and trade centers. As a focal point in the socio-economic development of the Northern Midland and Mountainous Region, the zone facilitates critical trade flows between Vietnam and China. The BGEZ supports a diverse economic structure, with local agricultural and specialty products constituting the majority of traded goods. It has become a key ASEAN trade node and plays a vital role in connecting domestic regions. Despite global economic uncertainties, cross-border trade activities—particularly in agricultural commodities—have remained dynamic. The total value of imports and exports through the zone in recent years is as follows: 2020 was 3.3 billion USD; 2021 was 3.503 billion USD; 2022 was USD 2.229 billion USD; 2023 was USD 1.620 billion USD; 2024 was USD 2.790 billion USD. As of 2024, the BGEZ had attracted 240 investment projects with a total registered capital exceeding VND 37 trillion. While these results are significant, persistent issues remain, such as incomplete infrastructure systems, cumbersome

administrative procedures, and a high dependence on small-scale border trade with China. These factors have constrained the zone's competitive advantage within the northern region. In the context of accelerating international integration and the demand for sustainable development, a comprehensive evaluation of the BGEZ's current status is essential. This study aims to assess the zone's development from 2020 to 2024 and propose strategic recommendations to enhance its future performance.

2. RESEARCH METHODOLOGY

2.1. Qualitative Analysis

The study involved collecting and analyzing policy documents, development strategies, and legal frameworks issued between 2020 and 2024. Special focus was placed on the content of planning documents, regional development strategies, and the organizational structure governing the zone.

2.2. Quantitative Analysis

Primary data was obtained via structured surveys administered to 85 public administrators and 180 enterprises operating within the BGEZ. The responses were statistically analyzed to assess levels of consensus regarding policy impacts and the effectiveness of administrative and infrastructural developments.

2.3. Secondary Data

Secondary data was sourced from the Management Board of the Lao Cai Border Gate Economic Zone and relevant government departments and agencies.

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3. RESEARCH CONTENT

3.1 Current Status of Infrastructure Development in the Lao Cai Border Gate Economic Zone

3.1.1. Transportation Infrastructure

The Lao Cai Border Gate Economic Zone plays a particularly important role in promoting cross-border trade between Vietnam and China, especially as it lies along the Kunming–Lao Cai–Hanoi–Hai Phong–Quang Ninh economic corridor. In recent years, Lao Cai Province has actively implemented numerous transportation infrastructure investment projects in this area, aiming to enhance transport capacity and interregional connectivity. In 2023, the total investment capital for transportation infrastructure projects at the border gate reached VND 94.439 billion, which was fully disbursed, allowing for the commissioning of eight key projects.

The road transport system is a critical factor in promoting the socio-economic development of the BGEZ. The Noi Bai – Lao Cai Expressway serves as the backbone of the transport chain, linking Lao Cai with Hanoi and other northern provinces, significantly supporting the movement of goods and passengers. Particularly noteworthy is the planned Red River road bridge project, connecting Bat Xat (Vietnam) with Ba Sai (China), which is expected to open a new cross-border transport route and further stimulate bilateral trade. The synchronized development of road infrastructure has not only reduced transportation costs but also enhanced the competitiveness of Vietnamese goods in the Chinese market, while laying the groundwork for urban development and improving the quality of life for local residents.

The Lao Cai international railway border gate currently operates 2–3 train pairs per day, with the potential to increase frequency as cargo volume grows.

Survey results among local administrators indicate a generally positive evaluation of transport infrastructure development in the BGEZ. Specifically:

- **Diversity of transport modes meeting freight demand** received an average rating of **4.04/5**;
- **Increased investment in transportation infrastructure for the zone's development** was rated at **3.56/5**.

However, the **quality of transport infrastructure** was rated only **3.21/5**, as many road systems have degraded rapidly without timely maintenance. In addition, over-reliance on road transport and the underutilization of the Vietnam–China railway remain key limitations that require strategic intervention.

3.1.2. Warehousing, Transport, and Logistics Infrastructure

Lao Cai Province is prioritizing investments in warehousing, transport, and logistics infrastructure to enhance clearance capacity and reduce logistics costs. A notable example is the development of the **Kim Thanh–Ban Vuoc Logistics Center**, spanning 332 hectares and comprising four functional subdivisions. This center is designed for multimodal connectivity with expressways, railways, inland waterways, and nearby industrial zones. However, infrastructure synchronization remains a challenge. The absence of an airport and incompatibility between Vietnam's railway system and that of China hinder the full exploitation of logistics potential. Moreover, weak linkages among logistics enterprises contribute to persistently high costs.

Nonetheless, Lao Cai has made significant strides in digital transformation, including the implementation of a digital border gate platform at the Kim Thanh checkpoint. This initiative has streamlined customs clearance processes and improved management efficiency. These efforts reflect the province's determination to modernize its logistics system, boost trade, and strengthen regional economic integration.

According to administrative staff from the Lao Cai BGEZ Management Board, there is growing consensus that the **scale and quality of logistics and warehousing infrastructure have been**

significantly improved, facilitating more efficient customs clearance. Survey scores for this area ranged between **3.41 and 3.72/5**.

3.1.3. Information and Communication Technology (ICT) Infrastructure

ICT infrastructure plays a pivotal role in the development of the Lao Cai Border Gate Economic Zone by enhancing administrative efficiency, promoting trade, and fostering regional integration. The application of digital technologies has shortened administrative procedures, increased transparency, and reduced operational costs for both businesses and residents.

Key technical systems—such as fiber-optic internet, 4G/5G networks, surveillance cameras, and modern customs management software—have been comprehensively deployed to support data monitoring, information processing, and cybersecurity. The province has also promoted the development of smart logistics services, e-

commerce, and the establishment of smart border urban models.

Notably, the implementation of the **Digital Border Gate Platform at Kim Thanh** has reduced the number of procedural steps in customs clearance from 18 to just 4, significantly improving productivity and business competitiveness. In addition, ICT systems have supported tourism services, investment attraction, and international cooperation, as demonstrated through pilot smart border initiatives and cross-border data connectivity projects with China.

Survey results reveal high satisfaction among management staff with the ICT infrastructure: **Modernization of ICT systems** received ratings of **3.48 to 4.01/5**, however, **limited public funding** remains a constraint, highlighting the urgent need for alternative financial support to complete data integration and system interconnectivity.

Table 1. Satisfaction Levels Regarding Infrastructure Development in the Lao Cai Border Gate Economic Zone

Unit: Survey responses (questionnaires)

No.	Evaluation Criteria	Score					Total votes	Average Score	Satisfaction Level
		1	2	3	4	5			
1	Land clearance and site compensation	17	37	68	41	17	180	3.02	Neutral
2	Transportation infrastructure	9	25	39	75	32	180	3.53	Satisfied
3	Warehousing, transport, and logistics infrastructure	12	30	42	56	40	180	3.46	Satisfied
4	Information and communication technology systems (ICT)	13	27	43	54	43	180	3.48	Satisfied

(Source: Author's survey data, 2024)

With a sample of 180 enterprises surveyed regarding their satisfaction with infrastructure development at the Lao Cai Border Gate Economic Zone, the results are summarized in Table 1. Overall, respondents expressed moderate to high satisfaction, particularly with transportation and logistics infrastructure, scoring between 3.46 and 3.53 out of 5. However, several limitations remain: the logistics system is still fragmented, service costs are relatively high, and transport

infrastructure is unevenly developed—leading to dissatisfaction among approximately 50 out of 180 enterprises. Moreover, land clearance and compensation processes received the lowest rating (3.02/5), indicating concerns about slow progress and cost overruns in project implementation. These responses provide critical feedback for the provincial government and the Economic Zone Management Board to revise and fine-tune development policies in the coming years.

3.2. Management of Import and Export Activities

From 2020 to 2024, import and export operations in the Lao Cai Border Gate Economic Zone were heavily impacted by the Covid-19 pandemic, especially during the period from 2020 to 2022. In response to the complex and evolving epidemic situation, the Economic Zone Management Board, in collaboration with relevant agencies, proactively designed and implemented adaptive management strategies tailored to each phase of pandemic prevention and control. In 2020, coordination with the Chinese side led to the establishment of a driver quarantine zone, the deployment of transit driver teams, and the regulation of vehicle movement at the Kim Thanh Border Gate—measures that ensured the continuity of cross-border logistics flows. In 2021, the province focused on digital trade facilitation, including promoting agricultural product sales via

online platforms, organizing virtual trade conferences, and working closely with Hekou authorities to prioritize clearance for key exports such as fresh bananas. In 2022, Lao Cai authorities intensified efforts in traffic flow management, border gate order control, and the initial digitalization of customs clearance procedures. However, statistical data reveals considerable fluctuations in trade value over the years. The lowest level of import-export turnover was recorded in 2022, at USD 2.23 billion, reflecting a 36.37% decrease compared to 2021. In contrast, total tax revenue collected only declined marginally (0.24%), indicating that while trade volume dropped, higher-value goods or improved tax collection mechanisms may have offset fiscal losses. The primary cause of the trade decline in 2022 was the prolonged restrictions stemming from pandemic-related border controls, which significantly disrupted the flow and value of goods.

Table 2. Import-Export Performance in the Lao Cai Border Gate Economic Zone

period 2020–2024

Indicator	Unit	2020	2021	2022	2023	2024
Number of enterprises involved in import-export	enterprises	570	585	554	653	792
Exported agricultural product volume	Thousand tons	170	195	153	160,3	239,6
Export value of agricultural products	Million USD	745	821	674	681	967
Total import-export turnover	Billion USD	3,3	3,503	2,23	1,62	2,79
Total number of border crossings (individuals)	Thousand persons	515,5	1,41	4,58	1.650	1.785
Number of cross-border vehicle entries/exits	Thousand trips	308,8	324,8	316,4	224	248,4
Total tax and fee revenue collected	Billion VND	1.530	1.654	1.650	943	1.331,6

(Source: Lao Cai Border Gate Economic Zone Management Board 2020 - 2024)

Enterprises investing in the Lao Cai Border Gate Economic Zone have benefited from a wide range of preferential policies, including corporate and personal income tax exemptions or reductions, long-term land rental exemptions, financial support, and workforce training. According to the 2024 survey, businesses highly

appreciated the clarity and variety of these policies, the proactive support from local authorities, and the application of information technology in administrative management. Nonetheless, some limitations remain. These include difficulty in accessing policy information, complex administrative procedures, and a shortage of skilled personnel to utilize incentives effectively. During the 2023–2024 recovery period, several initiatives were undertaken to

improve the trade environment. In 2023, the province launched the Digital Border Gate Platform, hosted successful trade fairs, and significantly reduced customs clearance times. Although the total import-export turnover in 2023 decreased by 7% compared to 2022, the application of digital platforms and trade promotion activities laid a solid foundation for a strong rebound. By 2024, total trade value surged by 76%, with **durian exports alone approaching USD 1 billion**, reflecting a robust recovery in cross-border trade activity in Lao Cai.

Thanks to the concerted efforts of central and local authorities to manage, connect, and promote bilateral trade, the outcomes achieved during 2020–2024 are considered relatively positive despite pandemic-related disruptions. According to survey results, administrative officials largely agreed on several key contributions to import-export development in the zone:

- Local authorities actively supported business operations and trade,
- Enterprises were able to access preferential policies with ease,
- Emerging issues were resolved promptly by management agencies.

These activities were rated between **3.42 and 3.58 out of 5**, indicating moderate to high satisfaction among stakeholders.

3.3. Management of Cross-Border Trade Cooperation

The Lao Cai Border Gate Economic Zone has firmly established itself as a major hub for goods transshipment between Vietnam–ASEAN and Southwest China. The 2020–2024 period saw notable achievements in managing cross-border trade cooperation. The Economic Zone Management Board maintained close communication and held regular bilateral meetings with Chinese counterparts to promptly address trade issues, improve the border business environment, and share updates. Through these dialogues, both sides agreed to pilot **two-way transport models**, upgrade border infrastructure, and pursue official openings of new border gate pairs—most notably **Muong Khuong – Qiaodou**. In parallel, Lao Cai Province emphasized procedural modernization, including the implementation of the **Digital Border Gate**

Platform, which enabled 100% of enterprises to pre-declare customs information before goods arrived at the border. This move toward electronic customs processing simplified procedures, reduced congestion, and improved transparency. During the Covid-19 pandemic, both governments maintained a **hotline system** for real-time coordination, preventing logistics bottlenecks at the border.

According to administrative staff surveys, there was broad consensus on the effectiveness of inter-agency coordination and technology application, with satisfaction scores ranging from **4.13 to 4.62 out of 5**, indicating strong approval of these initiatives' impact on trade facilitation. However, challenges remain. Cooperation mechanisms are still limited to the **provincial level** (Lao Cai – Hekou) and lack a comprehensive **bilateral legal framework at the national level**. The absence of a dedicated Vietnam–China agreement on border economic cooperation means that most initiatives rely on **inter-provincial consensus** and are subject to central government approval. This constrains policy alignment and the effective implementation of joint cross-border projects.

To enhance sustainable trade cooperation, strategic solutions are needed. Chief among them is the **signing of a high-level Vietnam–China bilateral agreement** on border economic cooperation in Lao Cai. Such an agreement would provide a robust legal foundation for institutionalizing coordination mechanisms and accelerating the establishment of a **Lao Cai – Hekou Cross-Border Economic Cooperation Zone**, as already envisioned. A unified cross-border zone would facilitate harmonized customs procedures, shared infrastructure, and improved clearance efficiency, thereby serving as a long-term driver of bilateral economic development.

3.4. Inspection and Evaluation of Economic Zone Management

Between 2020 and 2024, the Lao Cai Border Gate Economic Zone underwent regular inspections, averaging **9 to 10 inspections per year** conducted by the provincial government and relevant central ministries. These inspections covered a wide range of areas, including administrative performance, trade and investment development, land and spatial planning, environmental protection, law enforcement, and investor and enterprise satisfaction. Overall, the

inspection process was systematically implemented and yielded positive results, contributing significantly to improving state management in the border zone.

Table 3. Number of Inspections Conducted in Lao Cai Border Gate Economic Zone period 2020–2024

Unit: Inspections

Indicator	Unit	2020	2021	2022	2023
Number Check					
Periodic	4	4	5	5	4
Output	4	5	4	5	5
Check unit					
Provincial level	4	4	6	6	5
Ministry level	4	5	3	4	4
Total	8	9	9	10	9

(Source: Lao Cai Border Gate Economic Zone Management Board 2020 - 2024)

In the field of inter-agency coordination, the Economic Zone Management Board has taken the initiative to review and establish coordination regulations to ensure effective linkage among relevant authorities. Regarding planning, the Board has been granted full authority to manage approved detailed plans for industrial parks and functional areas, thereby enhancing project monitoring and evaluation capacity. In terms of investment promotion, the Board has actively prepared multilingual (Vietnamese, English, Chinese) promotional materials to attract potential investors, particularly in high-tech and deep-processing industries. Investment appraisal and monitoring have been conducted rigorously, with project classification based on performance and timely reporting to the provincial People's Committee for appropriate directives. Simultaneously, land management within

industrial parks has been regularly reviewed to ensure proper land use.

However, inspections have revealed certain shortcomings. Some infrastructure projects at the border gate—such as warehouses and inter-agency control centers—have faced implementation delays, limiting customs clearance capacity. Although the “one-stop, one-checkpoint” model has been introduced, coordination among Customs, Border Guards, and Quarantine agencies remains inconsistent, leading to congestion and prolonged processing times for businesses. Moreover, labor management—particularly of foreign workers—has not been sufficiently strict. Instances of unregistered or misreported labor use have been recorded. In the environmental domain, non-compliant waste discharge persists, especially in areas lacking standard wastewater treatment systems. These issues underline the need for stronger administrative enforcement, improved technical infrastructure, and enhanced inter-agency coordination to support the sustainable and modern development of the Lao Cai Border Gate Economic Zone.

Survey responses from management officials concerning the inspection and evaluation of zone management from 2020 to 2024 indicated favorable results. Key aspects such as: Regularity of inspections, Diversity and practical relevance of inspection content, Clear and detailed guidance on rectifying violations, were all rated positively with average scores ranging from **3.78 to 4.34 out of 5**, suggesting effective implementation.

4. CONCLUSION

The Lao Cai Border Gate Economic Zone possesses substantial development potential thanks to its strategic geographic location, well-designed planning, and the strong support of the Vietnamese government. During the 2020–2024 period, the zone achieved several notable outcomes:

- Stable growth in import-export turnover;
- A shift from informal to formal trade channels;
- Increased participation of enterprises in international trade;
- Strengthened planning and governance mechanisms;

- New and upgraded access roads and intermodal vehicle yards;
- Development of specialized functional zones and a modern border urban model;
- Effective application of IT in traffic monitoring and real-time cargo flow tracking;
- Creation of tens of thousands of local jobs, particularly in transport, warehousing, commerce, import-export, and border services.

However, challenges in zone management persist. Coordination efforts occasionally lack synchronization; during incidents (e.g., congestion, pandemics, administrative bottlenecks), cross-border coordination between the two countries remains inconsistent. Despite investments, infrastructure remains insufficient to meet rising demand, particularly in cold storage, container yards, and deeper inland connections. Overreliance on road-based trade and underutilization of the Vietnam–China rail link continue. Moreover, a significant proportion of cross-border trade still occurs informally, posing risks and regulatory difficulties.

To address these issues, the provincial government, Economic Zone Management Board, and relevant agencies should prioritize the following:

- Enhancing organizational and operational capacity within the Management Board;
- Accelerating land clearance through flexible policies and improved resettlement support;
- Prioritizing the development of synchronized, modern transport and logistics infrastructure;
- Diversifying trade markets and models to reduce dependency on a single partner.

The successful implementation of these solutions will serve as a strong catalyst for the sustainable development of the Lao Cai Border Gate Economic Zone, contributing meaningfully to both regional and national economic growth.

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