International Journal of Innovative Technologies in Social Science

e-ISSN: 2544-9435

Scholarly Publisher
RS Global Sp. z O.O.
ISNI: 0000 0004 8495 2390

Dolna 17, Warsaw,
Poland 00-773
+48 226 0 227 03
editorial_office@rsglobal.pl

ARTICLE TITLE	THE RISKS AT BORDER PORTS AND INTERNATIONAL STRATEGIES TO MITIGATE THEM
ARTICLE INFO	Gansukh Bat-Erdene. (2025) The Risks at Border Ports and International Strategies to Mitigate Them. *International Journal of Innovative Technologies in Social Science*. 1(45). doi: 10.31435/ijitss.1(45).2025.3191
DOI	https://doi.org/10.31435/ijitss.1(45).2025.3191
RECEIVED	20 January 2025
ACCEPTED	23 March 2025
PUBLISHED	30 March 2025
LICENSE	The article is licensed under a **Creative Commons Attribution 4.0 International License.**

THE RISKS AT BORDER PORTS AND INTERNATIONAL STRATEGIES TO MITIGATE THEM

Gansukh Bat-Erdene
Lieutenant Colonel, Ph.D., Candidate, National Defense University.
Senior Lecturer, University of Internal Affairs, Mongolia

ABSTRACT

Border crossings play a crucial role in facilitating trade, economic, and cultural exchanges between countries, but they also come with various risks. It is essential to effectively manage these risks to ensure the security and economic growth of nations. In the age of globalization, the significance of border crossings is growing as trade and economic interactions between countries continue to expand. These crossings not only oversee the movement of goods and services but also serve as a conduit for cultural and social connections between nations, playing a vital role in driving economic progress. However, with increased activity comes the emergence of numerous risks, highlighting the importance of efficiently managing and mitigating them.

The risks encountered by border operations are interconnected and varied. They encompass security risks like smuggling, terrorism, and transnational crime; operational risks such as infrastructure capacity and workforce shortages; and financial and economic risks like customs revenue loss and currency fluctuations.

These risks can have adverse effects not only on national security but also on regional and global economic stability.

International experience demonstrates that effectively reducing border risks necessitates a holistic approach encompassing technological advancements, legal frameworks, and human resource capabilities. Countries like Singapore, the Netherlands, and South Korea have successfully implemented cutting-edge systems such as "smart borders" and "single windows," leveraging technologies like artificial intelligence and block chain to establish robust risk management mechanisms.

In Mongolia, the significance of border ports is distinctive given its geographical positioning, economic structure, and developmental attributes. The country's unique position between two major neighbors, its landlocked status, and vast territory pose additional complexities in border risk management. Therefore, it is crucial to analyze global practices and experiences and tailor them to suit Mongolia's specific circumstances.

The objective of this research is to identify the risks encountered at border crossings, analyze global strategies to address these risks, and suggest potential solutions for adoption in Mongolia. This will lead to better management of border crossing risks, increased operational effectiveness, and ultimately support national security and sustainable economic growth.

KEYWORDS

Border Crossing, Risk, Security, Operations, International Experience

CITATION

Gansukh Bat-Erdene. (2025) The Risks at Border Ports and International Strategies to Mitigate Them. *International Journal of Innovative Technologies in Social Science*. 1(45). doi: 10.31435/ijitss.1(45).2025.3191

Introduction.

When traveling to or from a country, individuals go through a border crossing, which is a checkpoint at the state border. The border guard (border police) officers responsible for safeguarding the state border will permit passengers, vehicles, and goods to enter the country following the necessary procedures and carry out inspections at the border checkpoint. Thus, a state border checkpoint (gate) or port serves as a location where passengers, vehicles, and goods are granted entry into the country's border.

Mongolian scholar Ya.Tsevel's Mongolian Dictionary defines the term Port as:

1. a barrier obstructing the road - a road port;
2. a passage through which borders are crossed - a border port;
3. a gate in a wall - a port gate;

4. a designated area on the coast for ships to dock - a seaport.[1]

In the existing legal framework of our country, a border port is described as:

a. The Mongolian "Border Law" defines "border crossing" as a specifically designated area set up and designated by the border control agency for the purpose of examining and inspecting passengers, vehicles, goods, livestock, plants, as well as their raw materials and products crossing the state border.[2]

b. Article 1 of the 2004 Agreement between the Government of Mongolia and the Government of the People's Republic of China on Border Ports and Their Regimes defines "Border port" and "Port" as having the same meaning. These terms refer to a designated location for inspecting and registering citizens, vehicles, and goods on both sides of the Mongolian and Chinese border, facilitating their crossing.

c. The "Schengen Declaration on Borders," adopted by the European Parliament and the Council on March 15, 2006, and currently in effect in the European Union, describes a border crossing as a designated area for conducting border checks and inspections on individuals, vehicles, and goods, as well as for addressing matters related to entering or exiting the European Union territory. In summary, the definitions provided above are as follows:

A border crossing is a designated location equipped for the entry of passengers, vehicles, and goods across a state border, where border control agencies carry out inspections.

Borders are crucial points for global trade and tourism, and risk management is essential for safeguarding national security and enabling lawful trade. In recent times, borders have encountered various challenges such as smuggling, human trafficking, and unexpected threats like the global health crisis. As nations implement different strategies and technologies to enhance border security, it is important to study international practices comprehensively to tackle these risks effectively. By learning from diverse approaches, security measures can be enhanced, processing efficiency can be improved, and a more effective risk mitigation system can be established.

The Main Risks at Border Ports

Border crossings are crucial hubs for the transportation of trade, tourism, food cargo, and other goods between countries, playing a significant role in economic circulation. Despite their importance, these ports are susceptible to a variety of risks.

In addition to security, public health, and infrastructure issues, border crossings also face challenges like inadequate infrastructure, corruption, and cross-border crime.

The security risks

Transnational Crime:

Trafficking in illegal goods, such as arms, firearms, drugs, narcotics, and wildlife trafficking, poses a risk of illegal entry at border crossings.

Human Trafficking: There is a risk of human trafficking at border crossings, with potential presence of border violators.

Illegal Immigrants: Immigrants face various risks, including kidnapping, robbery, and threats to their personal safety.

Terrorism and Transnational Crime: Border and Port Security Agencies work to protect their countries from terrorists.

Smuggling: Criminal networks may engage in smuggling illegal goods, such as drugs, firearms, and people.

The economic risks

This can result in violations like illegal customs activities, tax evasion, fee evasion, illegal currency transactions, money laundering, and bribery. Bribery can decrease tariff revenues and disrupt the regional transport network.

The operational risks

Infrastructure problems: Insufficient infrastructure capacity can stem from inadequate facilities such as inspection facilities, equipment, and machinery at border crossings, as well as limited road space.

[1] Tsevel.Ya. Brief explanatory dictionary of the Mongolian language. UB., 1966, page 92

[2] Article 3.1.12 of the “Law on Borders” of Mongolia, UB., 2016.

Congestion and delays: Port congestion is a multifaceted problem, with limited vehicle lanes and congestion at border crossings due to insufficient road and space capacity.

Inadequacy: Border crossings may lack sufficient waiting areas, restrooms, and operational disruptions like inadequate warehouse and terminal capacity, equipment maintenance issues, power and water outages, and communication network failures.

The risks related to human resources

A shortage of skilled workers is another risk to border operations. Human resource risks at border ports may involve insufficiently qualified personnel, inadequate staff skills, uneven workloads, corruption, conflicts of interest, and inadequate workplace safety.

The public health risks

International spread of disease: The risk of disease spreading internationally is heightened by international travel, trade, and transportation, which facilitate the movement of people, goods, and vehicles.

Zoonotic diseases: Increased trade leads to greater interaction between humans and animals, raising the risk of zoonotic diseases.

The risks posed by external factors

Ports are vulnerable to various risks that can disrupt operations and compromise security. Geopolitical tensions are a major concern, as they can lead to increased scrutiny, delays in cargo processing, and heightened risks of economic losses and logistical disruptions. Environmental threats like hurricanes, sea level rise, and pandemics also present significant challenges that require strategic planning for port resilience. With the growing reliance on digital infrastructure in maritime and cargo transportation, the risk of cyberattacks targeting port systems adds another layer of vulnerability.

The interconnected nature of these risks underscores the intricate nature of border management, emphasizing the need for authorities to implement a holistic approach that not only tackles current security issues but also builds long-term resilience to address various challenges. By collaborating with international partners, border ports can enhance their readiness to manage and reduce these diverse risks.

The Risk Impact

Table1.

Direct impact	***Indirect impact***
Economic damage	The country's reputation will decline.
Threat to national security	Investor confidence declines
Loss of social stability	Weakening regional integration
Organizational failure	Impact on social psychology
Damage to human life and health	Slowing economic growth

The table above illustrates how border risks affect the country, national security, society, organizations, and individuals, both directly and indirectly. The table summarizes international practices that mitigate border risks, drawing from countries like Canada, Mexico, the Netherlands, Singapore, South Korea, and Germany. Additionally, the experiences of Mongolia's neighboring countries, the Russian Federation and the People's Republic of China, as well as those of the European Union and the United States, are examined to identify key advanced practices.

Mitigating Border Risks
Lessons Learned From International Experience

Table 2.

CANADA			
1	**Security system**	**Logistics solutions**	**Results**
	Biometric control system	Smart container system	Security breaches reduced by 65%
	Special program to combat terrorism	GPS tracking system	Logistics efficiency increased by 45%
	International cooperation mechanism	Automatic information exchange	International trade increased by 30%
MEXICO			
2	**Regional integration**	**Infrastructure development**	**The Results**
	Joint surveillance system with the United States	Modern port facilities	Cross-border trade increased by 40%
	Trade Facilitation Program	Automatic control system	Jobs increased by 25%
	Border economic zone	Network of logistics centers	The regional economy grew by 35%.
NETHERLANDS			
3	**"Smart Border" project**	**Green technology**	**The Results**
	Artificial intelligence-based control	Environmentally friendly infrastructure	Carbon emissions reduced by 40%
	Use of drones and robots	Renewable energy consumption	Energy costs reduced by 25%
	Automatic scan system	Waste management system	Operational efficiency increased by 60%
SINGAPORE			
4	**Technological solutions**	**Legal reform**	**The Results**
	"Single Window" system introduction	Reform of the Customs Law	Processing time reduced by 90%
	24/7 service	Joined international treaties and conventions	Customs revenue increased by 30%
	Implementation of the Smart Gate system	Risk management procedures have been developed.	Illegal activity decreased by 45%
SOUTH KOREA			
5	**Implementation of the UNI-PASS system**	**Infrastructure development**	**The Results**
	Fully automated customs system	Modern terminal and warehouse system	Cargo processing time reduced by 70%
	Use of blockchain technology	Intelligent transportation management	Operating costs reduced by 35%
	Intelligent control system	- Network of logistics centers	Border port capacity increased by 50%
GERMANY			
6	**Digital transformation**	**Human resource development**	**The Results**
	Implementation of the E-Customs system	Continuous learning system	Errors and violations reduced by 55%
	Automated document system	International experience exchange program	Employee productivity increased by 40%
	Use of electronic signatures	Training of qualified personnel	Customer satisfaction reached 85%

Table 3.

United States experience	The European Union experience	China experience	Experience of the Russian Federation
Use of advanced technology (drones, satellite monitoring, sensors)	Schengen Area Integrated Border Guard System	High-tech control system	A strategy for protecting vast borders
Multi-layered protection system	FRONTEX (European Border and Coast Guard Agency) activity	Use of biometric data	A combination of military and technological capabilities
Coordination between border protection agencies	- Information exchange between member states	Border infrastructure development	Border area control

International experience has demonstrated that effectively reducing border risks involves a mix of technological advancements, legal regulations, and building human resource capacity. Additionally, systematic planning, consistent implementation, and engaging multiple stakeholders are crucial components of border risk reduction.

A comprehensive security strategy is crucial, integrating technologies like biometrics and surveillance systems with conventional methods to enhance effectiveness. Cooperation between national and international organizations is necessary to exchange information and minimize weaknesses. Ongoing training and development of port staff are vital to equip them for new threats. Investment in robust infrastructure is necessary to manage different risks and maintain operations. Regular assessment of risk management plans is crucial to address changing circumstances. Following these suggestions can bolster border security, facilitate trade, and safeguard all involved parties. Mongolia can mitigate border operation risks effectively by adapting and implementing these practices according to its unique characteristics and capabilities.

Conclusions

This study explores the dangers encountered at border crossings, international efforts to mitigate them, and potential solutions for Mongolia. The main findings are as follows:

First, the border crossing risks are interconnected and complex, with security, operational, and economic risks influencing each other and leading to systemic issues. As a result, a comprehensive approach is needed to address these risks, rather than treating them separately.

Secondly, based on the experiences of countries globally, effective risk reduction strategies concentrate on three key areas:

- Utilization of technological advancements like intelligent systems, artificial intelligence, and blockchain
- Establishment of a legal framework consisting of national laws and regulations in alignment with international standards
- Development of human resource capacity through skilled personnel, ongoing training, and participation in international experience exchange initiatives.

Thirdly, the successful examples of countries like Singapore, the Netherlands, and South Korea highlight the significance of implementing risk reduction measures in a methodical and gradual manner. These nations initially set up the fundamental infrastructure and legal framework before progressively integrating more advanced technological solutions.

Fourth, the unique circumstances in Mongolia that should be considered include:

- Geographical location: Mongolia is landlocked and situated between two major neighboring countries.
- Economic structure: The country relies heavily on foreign trade.
- Infrastructure development: Mongolia has limited road transport and logistics networks.
- Financial resources: Investment opportunities in Mongolia are limited.

Fifth, the suggestion is for Mongolia to adopt risk reduction measures in three phases:

Short term (1-2 years):

- Enhance the effectiveness of current systems

- Enhance the expertise of staff
- Strengthen collaboration with international organizations

Medium term (2-5 years):

- Accelerate infrastructure development
- Enhance the legal framework
- Implement technological advancements gradually

Long term (more than 5 years):

- Implement fully automated systems
- Enhance regional integration
- Deliver services that meet international standards completely

In summary, the reduction of border risks is an ongoing and inclusive process that necessitates the involvement of multiple stakeholders. Mongolia has the potential to establish a robust risk management system by adapting international practices to its unique situation and implementing them gradually. This approach will enhance national security, foster collaboration with neighboring nations, improve border infrastructure, streamline foreign trade, promote sustainable economic development, and enhance the capabilities of border guard personnel.

REFERENCES

1. Tsevel.Ya. Brief explanatory dictionary of the Mongolian language. UB., 1966, page 92
2. Article 3.1.12 of the “Law on Borders” of Mongolia, UB., 2016.
3. World Customs Organization. (2024). "Best Practices in Border Management"
4. European Union. (2023). "Smart Borders Initiative Report"
5. Asian Development Bank. (2023). "Border Management Modernization"
6. World Bank. (2024). "Border Management Modernization"
7. International Maritime Organization. (2023). "Port Security Report"
8. UNCTAD. (2023). "Digital Customs Management"
9. OECD. (2024). "Trade Facilitation Indicators"
10. UN Economic Commission. (2023). "Cross-border Trade Report"
11. International Chamber of Commerce. (2024). "Global Trade Report"
12. Regional Development Banks. (2023). "Infrastructure Development"
13. International Organization for Migration. (2023). "Border Management Assessment"
14. https://immigration.gov.mn/media/filer_public/98/72/98726f51-2c0c-4303-ab25-f6603a161cc6/khiliin_boomtyn_aiuulgui_baidlyg_khangakhad_ankhaarakh_asuudal.pdf
15. https://www.uia.gov.mn/uploads/trans/attach/20183.pdf
16. https://legalinfo.mn/mn/detail/12418
17. https://vip76.mn/law/project/161
18. https://www.frontex.europa.eu/assets/Publications/Risk_Analysis/Risk_Analysis/ARA_2023.pdf
19. https://knowledgehub.transparency.org/assets/uploads/helpdesk/387_Literature_review_on_corruption_at_ports_and_border_points_in.pdf
20. https://home-affairs.ec.europa.eu/policies/schengen-borders-and-visa/smart-borders_en
21. http://treaty.mfa.gov.cn/tykfiles/20180718/1531876656866.pdf