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THROUGH SUBSURFACE BORDER PROTECTION

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THE ISSUES OF ENSURING SECURITY OF THE STATE BORDER THROUGH SUBSURFACE BORDER PROTECTION

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ABSTRACT

This article highlights the significance of subsurface border protection for national security, including border security. The study points out that enhancing the legal framework for subsurface border protection and establishing a security system can effectively implement an integrated border protection system.

Mongolia's border security comprises three main components: surface, air, and underground borders. However, the absence of subsurface border protection has been shown to adversely affect national security.

Subsurface border protection refers to the security measures and operations that safeguard areas beneath the surface, such as underground tunnels or voids that could be used for smuggling or illegal crossings. It is part of a larger operational system that includes the protection of surface and air borders through coordinated efforts in various domains such as political, legal, and intelligence activities. The threat of subsurface breaches is an important aspect of overall border security.

Therefore, enhancing subsurface border protection is crucial for ensuring national security, and an integrated solution involving technological solutions, legal regulations, and international cooperation is necessary.

KEYWORDS

Security Concept, Border Security, Subsurface Border Protection, Border Area

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Introduction:

Every country in the world has its own distinct borders. The state border is fundamental to independence and sovereignty, and nations that have effectively secured and protected it through international agreements flourish, with their citizens enjoying peace and prosperity. Conversely, countries that have unresolved border issues are vulnerable to external threats and aggression, leading to weakened nations and suffering populations.

To bolster their independence and chart their development path, countries globally have meticulously crafted political, social, economic, legal, and military strategies, implementing measures to safeguard their borders, territories, and people in a strategic manner. This not only aids in domestic progress but also enhances their standing on the international and regional fronts. To safeguard their national interests and bolster their independence and sovereignty in a rapidly evolving security landscape, countries are revising their constitutions in alignment with the UN Charter, enhancing their security frameworks, and addressing development and security challenges based on their unique characteristics.

Following the transition to a new social system in 1990 and the adoption of a new constitution in 1992, Mongolia recognized the importance of protecting national security. The introduction of the initial National Security Concept in 1994 and its subsequent update in 2010 laid the groundwork for the systematic handling of comprehensive security issues.

According to the Law on National Security of Mongolia, national security is defined as "a state of favorable external and internal conditions that safeguard the fundamental interests of Mongolia."

National security threats can be classified as either internal or external, depending on their source, location, space, and influencing factors. This classification helps to clarify the approach to addressing national security challenges, as the forms and methods of ensuring security can vary. Border security is crucial for national security, and the state has defined it as ensuring national core interests and favorable external and internal conditions at the state border and border areas.

Border security is a multifaceted concept with a wide scope encompassing various aspects such as monitoring, detection, anticipation, response, readiness, and preparation for potential risks, threats, and signals that could impact a nation's sovereignty and security. It involves safeguarding borders from external threats as well as preventing the entry of international terrorists, illegal immigrants, drug and human traffickers, and other transnational criminals into the country's territory, while also securing the surrounding areas near the borders.

In his article "A Systemic Approach to Ensuring Border Security," scholar Dr. A. Ganbileg described the border security system as a comprehensive combination of air, surface, and underground border protection measures aligned with the objective of safeguarding national security and guaranteeing border security. He emphasized that the effective functioning of these three subsystems is essential for ensuring border security, which is an integral part of national security.¹

The 8,252.6 km of our country's air, land, and subsoil border lines have been defined and safeguarded, and their integrity must be consistently upheld regardless of the time of day, night, or season, in line with the core interests of the global community and Mongolia. Ensuring border security is a constitutional obligation and a genuine necessity for the state, society, and citizens. The border protection system is established in compliance with Mongolian laws as outlined below:²

- Surface border - According to the Mongolian Border Law, the state border on land and water must be safeguarded by the state border protection organization, and any information regarding manned and unmanned aircraft potentially breaching the air border should be promptly relayed to the air force units and branches of the armed forces;

- Air border - The Mongolian Border Law specifies that the air border is to be safeguarded by the air force of the armed forces;

- Subsurface border - From a legal perspective, underground border protection is not regulated and lacks a designated responsible entity. Nevertheless, Article 22 of the Border Law addresses the issue of "Subsurface penetration of the state border" in Article 22.1.3, suggesting that underground border protection falls partially under the purview of the Border Protection Organization.

We have expertise in coordinating air and land border security measures across Mongolia in compliance with international agreements and Mongolia's laws, and in promptly identifying and addressing breaches at the state border and surrounding areas.

Mongolia must establish autonomous policies and initiatives to safeguard its borders, prioritize its fundamental national interests, and tackle sustainable development challenges. However, there is a lack of legal framework to safeguard its subterranean borders and guarantee its territorial integrity and inviolability. The concept of territorial integrity in Mongolia encompasses the land surface, water surface, airspace, and subsoil, along with their valuable components. According to the Law on Subsoil of Mongolia, subsoil is defined as the space from the soil to the depths of the earth, including all types of rocks, minerals, and other geological objects, as well as buildings.

The border protection system is currently described as a comprehensive network of surface, air, and underground border protection measures aimed at guaranteeing border security. The absence of underground border protection, a crucial component of the system, raises concerns about the ability to fully safeguard national security. Therefore, state border protection should not be restricted to the surface border line alone, but should encompass the vertical plane extending above and below it. The system approach to the subsurface border protection system includes two sub-elements: the subsurface border protection element and the subsurface natural resource protection element. This can be represented mathematically as:

$$\Sigma_{SS_s} : \{SS_p; R_p; \{SS_{B_p}; R_p\}\}, \quad (1)$$

Here, $\Sigma_{\Gamma X_x}$ – A sign indicating that the area is protected by a subsurface border security system;

X_x - subsurface border protection operational component;

B_x - subsoil resource protection activities;

¹ GANBILEG, ALAGDAA. (2023). Using A System Approach To Ensure Border Security. *International Journal of Innovative Technologies in Social Science*, (4(40)). https://doi.org/10.31435/rsglobal_ijitss/30122023/8096

² Mongolian Border Law – UB, 2016, Chapter 4, Article 31.1

$\{X_{x_i}, B_{x_i}\}$ - a series of connected tasks for safeguarding subsurface borders and preserving resources. In the realm of subsurface border security operations, breaches of international law involve cross-border organized groups constructing underground tunnels to facilitate the smuggling of drugs and other prohibited items, as well as engaging in other illegal activities. According to the unified registration system of the Mongolian border security and border protection organization, there have been no documented instances of underground violations or potential violations of the state border. Nevertheless, it is acknowledged that such occurrences are conceivable. Here are some key takeaways from various international organizations:

1. United States and Mexico: Criminal organizations operating along the US-Mexico border have established a system of tunnels to transport drugs across the border, with the US government uncovering over 150 underground border tunnels since 1990.

In 2020, US federal agents uncovered one of the longest smuggling tunnels ever constructed, measuring 1,313 meters in length. The tunnel connected Tijuana, Mexico, to San Diego, California, USA, and featured walls, lighting, ventilation, and a rail system.¹



Fig. 1. An illustration depicting the subterranean tunnel beneath the US-Mexico border.²

2. Israel and Egypt: Tunnels were commonly utilized to smuggle goods, such as fuel, food, and weapons, into the Gaza Strip due to the economic blockade between the two countries.



Fig. 2. Palestinians in Rafah, Egypt, removing bags of food and ammunition from a tunnel that was used for smuggling into the Gaza Strip on June 27, 2008.³

¹ Tunnel discovered on US-Mexico border is longest ever, authorities say. - San Diego., 2020. <https://www.theguardian.com/world/2020/jan/29/drug-tunnel-discovered-us-mexico-border>;

² <https://www.bbc.com/news/world-us-canada-51304861>

³ https://lenta.ru/articles/2023/10/22/gaza_tunnels/

3. South Korea and North Korea: North Korea constructed tunnels beneath the "de facto border" during and after the Korean War. South Korea has uncovered numerous tunnels since the 1970s, with the longest one measuring around 2 kilometers in length.



Fig. 3. The tunnels that were found beneath the border separating South Korea and North Korea.¹

4. Kazakhstan and Uzbekistan: In early July of this year, the Uzbek State Security Service uncovered a 310-meter-long tunnel on the border of the Tashkent region. The tunnel was utilized by a criminal group to smuggle 17,048 packages containing 107 different types of drugs originating from India, with an estimated total value of around \$80,000.



Fig. 4. A tunnel located on the border between Uzbekistan and Kyrgyzstan.²

5. Uzbekistan – Kyrgyzstan: On March 19, authorities in Uzbekistan discovered two underground tunnels connecting the city of Khanabad to the village of Bekabad in the Suzak region of Kyrgyzstan. The tunnels were equipped with lighting, surveillance cameras, concrete floors, and elevators. During the operation to uncover the tunnels, officials seized 3,813 mobile phones, 50 tablets, 97 laptops, over 1,000 accessories, and 1.7 kg of gold and jewelry. The tunnels were 20 meters deep, 70–80 cm wide, and 170–180 cm high, with one tunnel measuring 350 meters in length and the other 135 meters.

¹ <https://koreya24.ru/novosti/severnaa-korea-mozet-ispolzovat-set-podzemnyh-tonnellei-v-slucae-voiny>

² <https://rus.azattyq.org/a/33021188.html>



Fig. 5. A tunnel located on the border between Uzbekistan and Kyrgyzstan.¹

Conclusions

Ensuring the security of a state's border through subsurface border protection involves a multifaceted approach. This includes using advanced technologies to monitor and control any underground activities that may threaten border security, such as smuggling or illegal immigration. In addition to technological measures, a unified and coordinated effort among various state functions-political, legal, diplomatic, economic, environmental, and intelligence-plays a critical role in enhancing overall border security. Effective inspection of transportation and thorough enforcement of regulations at border entry points are essential components of this strategy.

In conclusion, cross-border tunnels are often a result of geopolitical tensions, economic sanctions, and pressure from countries. These tunnels serve as transit routes for illegal goods and criminal groups, highlighting the importance of enhancing subsurface border security. To address these challenges, it is crucial to implement modern technologies such as subsurface detection scanners and satellite surveillance systems.

Additionally, strengthening control mechanisms and legal frameworks in border areas, improving international cooperation, and engaging local citizens in detecting and reporting illegal activities are essential steps to enhance border security and protection.

Implementing the above solutions can help mitigate the risks posed by cross-border tunnels and enhance national security.

Recommendations

The recommendations emphasized legitimate strategies for enhancing subsurface border security through defensive infrastructure measures:

Geological Assessment and Monitoring:

- Conducting regular geological surveys to assess ground composition and vulnerabilities
- Implementing continuous seismic monitoring systems to detect underground disturbances
- Performing ground-penetrating radar (GPR) surveys at specified intervals

Sensor Technology Implementation:

- Deploying underground fiber optic sensor networks to detect vibrations and movement
- Utilizing acoustic detection systems tailored for subsurface activity
- Employing electromagnetic sensors to identify metallic objects or equipment

Infrastructure Measures:

- Installing reinforced concrete foundations at critical locations
- Placing anti-tunneling barriers at appropriate depths
- Implementing drainage systems that also serve as detection mechanisms

¹https://kaktus.media/doc/497864_na_granice_s_uzbekistanom_nashli_130_metrovyy_podzemnyy_tynnel_kontrabandistov_foto.html

Surveillance Integration:

- Coordinating above-ground and subsurface monitoring systems
- Integrating data from various sensor types for enhanced threat assessment
- Updating mapping regularly to monitor changes in subsurface conditions

Response Protocols:

- Establishing clear procedures for investigating detected anomalies
- Collaborating with geological experts for assessment purposes
- Conducting regular testing and maintenance of detection systems

Preventive Measures:

- Inspecting existing underground infrastructure on a routine basis
- Monitoring nearby construction activities
- Documenting historical tunneling attempts for pattern analysis

Training and Personnel:

- Providing specialized training for border security personnel on subsurface threats
- Conducting regular drills and scenario planning exercises
- Collaborating with geological experts and engineers

Legal Framework:

- Establishing clear protocols for investigation and response
- Forming international cooperation agreements for shared borders
- Implementing documentation requirements for nearby underground construction sites

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