

Article citation info: Betus, M., Koncek, M., Sofranko, M., Rusnak, P., Burachok, I. Logistics during the long-term intervention of units of the Integrated Rescue System. *Transport & Logistics: the International Journal*, 2024; Vol. 24, No. 57, ISSN 2406-1069, <https://doi.org/10.46544/TNL.v24n57.04>

Logistics during the long-term intervention of units of the Integrated Rescue System

**Miroslav Betus^{1*}, Martin Koncek¹, Marian Sofranko¹, Peter Rusnák¹,
Ivanna Burachok¹**

¹ Technical University of Kosice, Faculty of Mining, Ecology, Process Control and Geotechnologies, Kosice, Slovak Republic, miroslav.betus@tuke.sk, martin.koncek@tuke.sk, marian.sofranko@tuke.sk, peter.rusnak5@minv.sk, Ivanna.burachok@student.tuke.sk

*Corresponding author: miroslav.betus@tuke.sk

Abstract:

The work deals with the issue of logistical security of the components of the integrated rescue system when ensuring internal border security associated with the construction of a registration point for the possible capture of a larger number of migrants arriving at the state borders, for the purpose of staying in the territory of the Slovak Republic or only when passing through the territory of the Slovak Republic. The result of the submitted contribution is a summary of the results so far and the development of a proposal for possible changes and measures to improve the current state of logistics of the participating components of the Integrated Rescue System. Proposals and recommendations are also applicable in other extraordinary events of components of the Integrated Rescue System when deployed on the territory of the Slovak Republic, or dispatch of individual components abroad, e.g. to protect the borders of the Schengen area or humanitarian aid..

Key words:

Logistics, Integrated rescue system, operational plan

Introduction

Logistics represents a key factor in the success of every intervention within the Integrated Rescue System. Although it is often invisible to the public, its importance is invaluable, especially in cases of long-term operations that require a high level of coordination, rapid response, and flexibility. The Integrated Rescue System, as a complex system consisting of multiple organizations and components (firefighters, emergency medical services, police, military, and others), relies on smooth and efficient logistical processes when dealing with emergency events. These processes ensure not only the supply of necessary materials and equipment but also the support of operational units in the field and coordination of activities between various components (Kováč, 2013; Betus et al., 2022; Zeman et al., 2021).

A long-term intervention, such as the response to a major natural disaster, ongoing monitoring and border control in the case of migration waves, or large-scale operations during technical accidents, requires planning that goes beyond routine operations. Interventions lasting several days or weeks place specific demands on logistics: the need for continuous supply of resources, provision of accommodation and meals for rescue teams, effective communication between various components, and the ability to adapt to unpredictable situations. Furthermore, logistics must be prepared for real-time changes – to constantly evolving conditions in the field that require quick response and flexibility in deploying technical and human resources (Kováč, 2013; Betus et al., 2022; Zeman et al., 2021).

Interventions that require the deployment of Integrated Rescue System units over an extended period are often associated with vast geographic areas and a high number of participants. These operations inevitably demand complex logistical operations that include not only the transport of materials and personnel but also the provision of necessary technical and medical facilities. Each long-term intervention requires the establishment of specific supply routes, planning for replenishment of resources during the operation, and optimization of available resources. This requires logistics to be capable of not only reacting quickly but also planning ahead—sometimes for several days—posing a challenge in the case of unpredictable events (Kováč, 2017; Betus et al., 2023; Varga and Beránek, 2020).

A key aspect is also the ability to coordinate logistics between different components of the Integrated Rescue System and external entities. For example, during a large-scale natural disaster or migration wave, interactions may be required not only between various rescue components but also with non-governmental organizations, local authorities, the military, or international organizations. The role of logistics is to ensure that all these entities have access to the necessary information, resources, and support in real-time. Coordination must be perfectly synchronized to minimize risks and optimize the course of the intervention (Kováč, 2017; Betus et al., 2023; Varga and Beránek, 2020).

The operational plan outlines the tasks set by the Ministry of the Interior's standard plan, defining the conditions and procedures for establishing and operating a registration point. A registration point is defined as an area typically located near the national borders, which is set up in the event of a significant increase in the number of foreign nationals entering the Slovak Republic without authorization to enter or stay, for the purpose of carrying out necessary administrative procedures in accordance with applicable legal regulations (Petrík and Jablonský, 2019; Tóth and Kováč, 2020; Kováč, 2013).

The main task of the registration point is the identification and registration of migrants, which is crucial for the subsequent management of their stay in the Slovak Republic. To establish and ensure the operation of the registration point, it is essential that the government of the Slovak Republic calls upon the relevant units, such as the Police Forces of the Slovak Republic, active members of the Slovak Armed Forces, and personnel of the Prison and Judicial Guard of the Slovak Republic. The government decides on the deployment of these units based on the proposal of the Ministry of the Interior (Petrík and Jablonský, 2019; Tóth and Kováč, 2020; Kováč, 2013).

By government resolution, the number and location of registration points are determined, and in accordance with this operational plan, the deployment of the Slovak Fire and Rescue Service and Ministry of the Interior healthcare personnel is approved. The operational plan takes into account situations where, depending on the number of incoming migrants, it will be necessary to establish a registration point at pre-designated locations that meet basic requirements. The conditions and procedures necessary for the operation of these points are detailed in this plan, ensuring the efficient and lawful registration of migrants in the Slovak Republic (Petrík and Jablonský, 2019; Tóth and Kováč, 2020; Kováč, 2013).

1 Methods and methodology

The role of the registration point is to collect and register basic information and data about the migrant as quickly as possible and to perform further actions to determine subsequent procedures. This means redistributing and referring migrants to the appropriate police unit, the Ministry of the Interior, or another state authority (e.g., the social and legal protection of children authorities) if a decision is made based on the specific circumstances of the case (Schmidt and Kalenská, 2020; Tomašková et al., 2022).

Registration refers to the process of recording the gathered information about the migrant and the actions taken in the migrant's registration form. The registration point consists of individual workstations that form a corridor through which the migrant passes. The capacity of the registration point is designed to handle the registration of 250 to 300 migrants within 24 hours. The number of registered migrants can be increased by establishing additional registration points. Part of the registration point includes a workstation for the Ministry of the Interior's healthcare facility, where medical personnel assess the current health condition of migrants and provide treatment or isolate any migrant showing signs of an infectious disease (Ministry of the Interior of the Slovak Republic, 2018; Martin and Strelec, 2018).

The authorities cooperating in the establishment and operation of the registration point are:

- Police of the Slovak Republic,
- Fire and Rescue Service of the Slovak Republic,
- Army of the Slovak Republic,
- Healthcare Facility of the Ministry of the Interior of the Slovak Republic,
- Migration Office of the Ministry of the Interior of the Slovak Republic (Ministry of the Interior of the Slovak Republic, 2018; Martin and Strelec, 2018).

1.1 Command Staffs, Composition, and Management Methodology

In the context of managing the operation of registration points and interventions within the Integrated Rescue System, the command staffs play a critical role in coordinating the actions of various cooperating entities. The structure, composition, and management approach are designed to ensure effective decision-making, coordination, and the smooth execution of tasks during large-scale operations, such as migration crises or other emergencies (Ministry of the Interior of the Slovak Republic, 2018; Martin and Strelec, 2018).

For the purposes of constructing and operating the registration point, the 1st and 2nd level command staffs will be utilized, which are designated for the establishment of a temporary reintroduction of internal border protection. These staffs are expanded as follows:

- 1st Level – Strategic Command Staff is reinforced with representatives from (Fire and Rescue Service of the Slovak Republic, Prison and Judicial Guard, Healthcare Facility of the Ministry of the Interior, Migration Office of the Ministry of the Interior of the Slovak Republic,
- 2nd Level – Tactical Command Staff of the relevant regional police directorate is reinforced with representatives from (Fire and Rescue Service of the Slovak Republic, Prison and Judicial Guard, Healthcare Facility of the Ministry of the Interior, Press Department of the Regional Police Directorate (Ministry of the Interior of the Slovak Republic, 2018; Martin and Strelec, 2018).

The management levels within the registration site are composed of representatives from the authorities cooperating in the establishment and operation of the registration site, as follows:

- Level III – Registration site (commander of the registration site and their deputy (police officers), members of the registration site, police representatives, representatives of the Fire and Rescue Service of the Slovak Republic, representatives of the Prison Service of the Czech Republic, representatives of the Ministry of the Interior's healthcare facility, representatives of the Slovak Armed Forces, representatives of the Migration Office of the Ministry of the Interior of the Slovak Republic) (Ministry of the Interior of the Slovak Republic, 2018; Martin and Strelec, 2018).

The commanders of the individual command staffs may, depending on the current situation and needs, bring additional personnel into the staff. Based on the assessment of the current situation, a decision may be made to involve non-governmental non-profit organizations to provide necessary humanitarian aid to migrants during their stay at the registration site (Vlach, 2016).

1.2 Activation of forces and resources

The activation of forces and resources proceeded as follows:

- In the first stage, members of the strategic command staff are informed and summoned. The summons is organized by the Operations Department of the Police Presidium of the Slovak Republic, following the instruction of the Police President, after the government decision to deploy active-duty soldiers and members of the Prison and Judicial Guard Service to perform police tasks related to the establishment and operation of the registration site. If the circumstances and nature of the current situation in the field of illegal migration do not allow for a delay, the Police President may issue a notice to summon the members of the strategic command staff even before the government's decision.
- In the second stage, members of the tactical command staff are notified and summoned. The notification and summons are organized by the Integrated Operational Center of the respective regional police directorate. The summons is issued based on the instruction of the director of the relevant regional police directorate.
- In the third stage, members of the tactical command staff ensure the deployment of forces and resources through their own channels. The designated forces and resources are required to report to the specified location for the construction of the registration site at the time set by the strategic command staff for each of the cooperating authorities (see Fig. 1) (Štetina, 2014; Barton, 2019).

Legend for figure no. 1: 1. Entrance assembly area. 2. Search of persons. 3. Triage station. 4. Assembly area for identification, 5. Registration area. 6. Exit assembly area. 7. Isolation room. 8. Washroom. 9. Infirmary. 10. Exit washroom 11. Tent from an emergency survival container. 12. Emergency Survival Container. 13. Emergency Survival Container Tent. 14. Emergency Survival Container. 15. Rear Container. 16. Reserve Tent. 17. Emergency Survival Container. 18 and 19. Mobile Monitoring Centre Vehicle Positions. 20. Position, 21 Position for escort buses. Parking place for Police vehicles. 22. Container power stations. 23. Mobile drinking water tanks. 24. Outdoor lighting. 25. Information stands. 26. Ambulance station. 27. Contact and communication centre vehicle. 28. Fire vehicles. 29. Escort buses. A – Main entrance/entrance to the area, B – Entrance for migrants to the corridor, C – Main entrance, D – Medical opinion of the Ministry of the Interior of the Slovak Republic, E – Infirmary, F – Infirmary and escort, G – Parking lot of control authorities, H – entrance/exit to the campus.

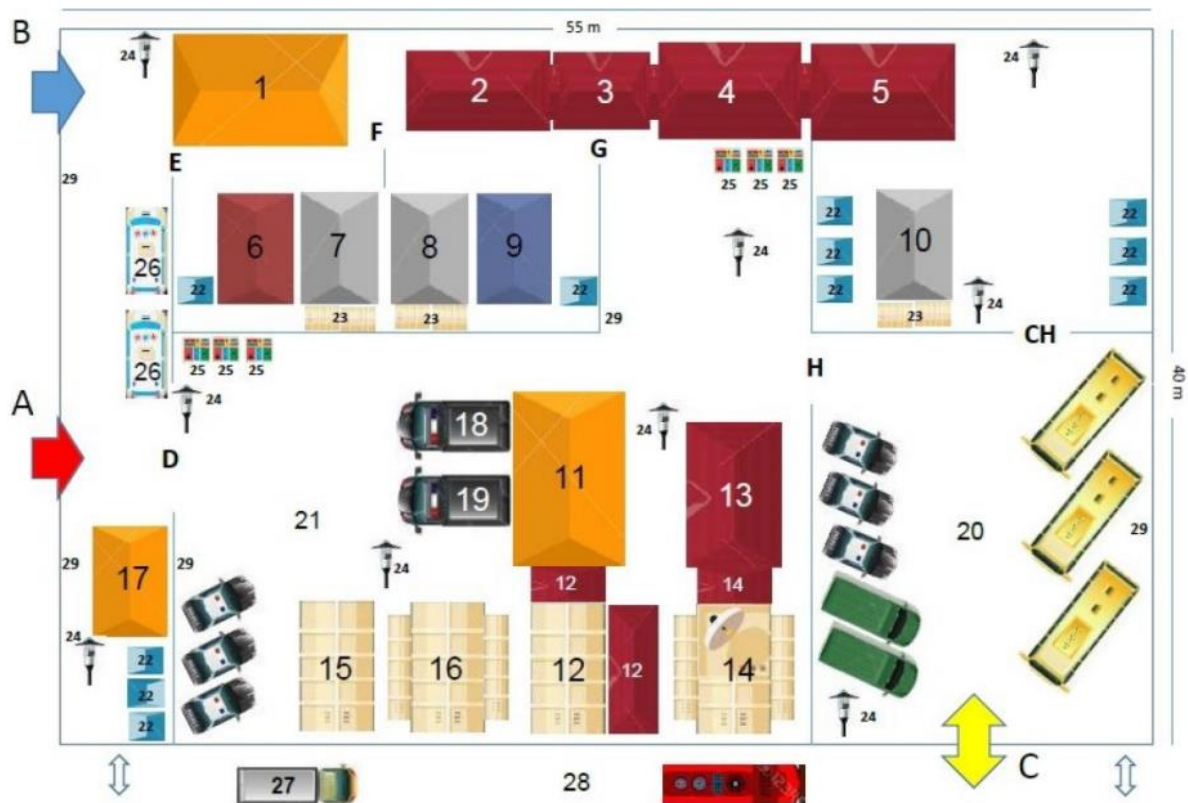


Fig. 1 Recommended organizational chart of the registration site
Source: elaborated by authors

1.3 Establishment of Registration Sites during Long-Term Interventions of Integrated Rescue System Units

The establishment of registration sites during long-term interventions by Integrated Rescue System (IRS) units is a crucial part of ensuring an effective response to emergency situations, such as migration waves, natural disasters, or technical accidents. Registration sites play a key role in the identification, registration, and processing of individuals entering the territory of the Slovak Republic or moving within its borders. The establishment of these sites must be carefully planned and executed, taking into account the needs and specifics of the particular situation (Zátková and Hanzlík, 2015; Škoviera and Košťál, 2019).

The first step in establishing registration sites is determining suitable locations. Registration sites are typically set up near state borders or in areas where a higher influx of migrants, refugees, or other individuals requiring registration is expected. The selection of the location should take into account several factors, including:

- Geographic Location – Registration sites should be strategically positioned as close as possible to areas where mass border crossings or other relevant areas (such as bus stations, train stations, or other transit hubs) are taking place,
- Infrastructure – The location must have the necessary infrastructure for setting up and operating registration sites. This includes access to electricity, water, sanitation facilities, communication networks, and sufficient capacity to accommodate the required personnel and technical equipment,
- Accessibility and Security – Registration sites must be easily accessible for the participating components of the Integrated Rescue System, but they must also be secure and protected against potential threats (Zátková and Hanzlík, 2015; Škoviera and Košťál, 2019).

One of the main characteristics of the operation of registration sites is their flexibility and ability to adapt to a changing situation. In the case of a mass influx of migrants or a sudden increase in the number of individuals needing registration, the operation of the registration sites must be able to respond quickly. For this reason, it is essential that contingency plans within the Integrated Rescue System are in place to allow for the rapid expansion of registration site capacity. This may include personnel reinforcement, the provision of additional infrastructure, or the mobilization of additional logistical and technical resources (see Fig. 2) (Ministry of the Interior of the Slovak Republic, 2018; Martin and Strelec, 2018).



Fig. 2 Large-Capacity Registration Center in Michalovce
Source: elaborated by authors

The establishment of registration sites during long-term interventions by the Integrated Rescue System is a key element in ensuring the smooth and effective management of the movement of migrants, refugees, or individuals in crisis situations. Securing an appropriate location, coordination among the components of the Integrated Rescue System, effective site operation, and flexibility in responding to unexpected situations are essential prerequisites for the successful handling of long-term interventions. An important aspect is also the continuous evaluation and improvement of the operation of these sites based on experiences from previous interventions (Ministry of the Interior of the Slovak Republic, 2022).

The plan is divided into four stages of procedure: green, orange, red, and black stages. Each stage defines in detail parameters such as the influx of migrants, coordination among the components of the Integrated Rescue System, and the specific tasks that each component must perform, as well as addressing issues related to funding, accommodation, and other necessary measures. The ongoing situation with a large number of people fleeing from invaded areas led to the need for the establishment of registration sites, where migrants are registered and receive the necessary assistance. In response to this crisis situation, several registration sites were set up within the territory of the Slovak Republic to carry out essential administrative and humanitarian tasks (Ministry of the Interior of the Slovak Republic, 2022).

The main registration site (e.g., Michalovce) is then determined, followed by the establishment of additional sites as needed, such as in Humenné, Žilina, Nitra, and Bratislava. All these registration sites were based on the operational plan for the land border. Given the massive influx of refugees at the border, no registration or control took place directly at the border. If citizens arrived by their own transport, they proceeded to the registration sites of their choice. Those who arrived at the state border by means other than their own transport were transported by evacuation buses from the Fire and Rescue Service to the registration sites based on available capacity, which the firefighters were informed of (see Fig. 3) (Ministry of the Interior of the Slovak Republic, 2022).

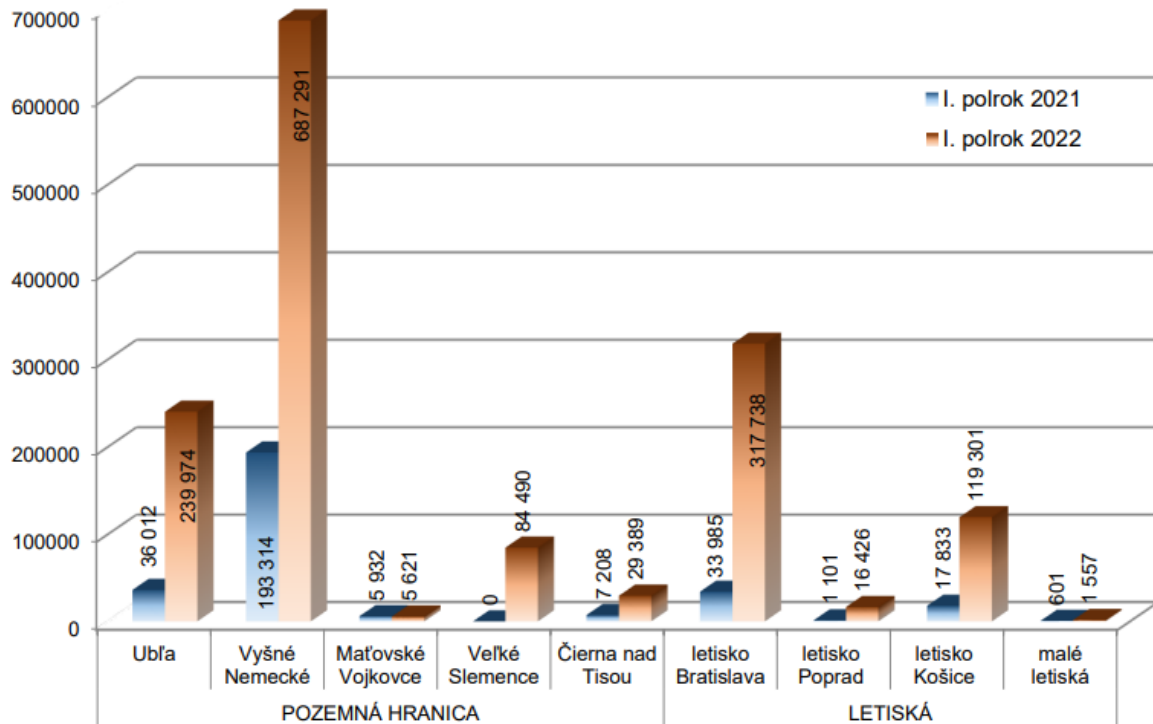


Fig. 3 Overview of the number of individuals who legally crossed the external border, by individual border crossings, for the first half of the years 2021 and 2022.

Source: elaborated by authors

2 Results

The procedure at all registration sites (Michalovce, Bratislava, Žilina, and Nitra) was very similar, if not identical. Upon arrival, individuals—whether they came on their own or were brought by someone—had their documents checked to ensure they had at least some form of identification that could be used to issue a visa. In practice, a visa was issued to everyone, even those without any documents. Birth certificates were accepted for children, while adults mostly had passports, and some had national ID cards. The number of applicants without identification was minimal. Upon entry, volunteers (interpreters) were present to provide applicants with initial information, assist in filling out the necessary forms for visa issuance, and issue a queue number (Ministry of the Interior of the Slovak Republic, 2022).

The next step was to ask if they had secured accommodation. If they had, they proceeded to register with the Foreign Police, where their data was entered into the systems of the Slovak Police and the Ministry of the Interior of the Slovak Republic. Subsequently, applicants were provided with information from the Employment Office regarding the disbursement of benefits, and they were required to open a bank account to prevent abuse of the benefit payments (see Tab. 1) (Ministry of the Interior of the Slovak Republic, 2022).

Initially, the deadline for opening a bank account was set at 30 days, but this was later shortened to 3 days in order to ensure that the assistance reached those in need. After completing these steps, applicants left the registration sites on their own. Those who had not arranged accommodation were first informed by members of the Fire and Rescue Service about available options, and accommodation was provided for them. After being housed, refugees had to complete registration with the Border and Foreign Police, as well as with the Employment, Social Affairs, and Family Offices. Once this registration was completed at the respective registration centres, they were transported to their accommodation facilities by Fire buses (Ministry of the Interior of the Slovak Republic, 2022).

In cases of medical complications, healthcare was provided by an emergency service doctor. If needed, staff from the Slovak Red Cross was present to offer food, water, and basic hygiene supplies, as well as volunteers from non-governmental organizations and civil associations (Ministry of the Interior of the Slovak Republic, 2022).

Tab. 1 Number of valid residence permits for nationals of third countries as of June 30, 2022

Nationality	Number of residence permits	As of June 30, 2022 – Top 8		
		Temporary	Permanent	Tolerated
Ukraine	139 847	52 107	7819	79921
Serbia	16 999	15875	1123	1
Vietnam	7495	5334	2152	9
Russia	6994	3562	3199	233
United Kingdom	2772	43	2728	1
China	2702	742	1950	10
North Macedonia	2312	1575	737	0
Georgia	1527	1446	71	10

Source: Ministry of the Interior of the Slovak Republic, 2022

Risk analysis provides answers to the questions of what threats society may be exposed to, what its vulnerabilities are to these threats, the likelihood of their occurrence, and the potential impact these threats may have on society (Ministry of the Interior of the Slovak Republic, 2022).

It is important to distinguish between a threat and a risk. A threat represents a potential source of danger that could lead to the emergence of a risk. Risk, on the other hand, is a measure of the probability that the threat will materialize, as well as an assessment of its potential impact on assets or systems. Risk analysis allows us to identify ways to reduce the likelihood of a risk occurring and minimize its negative consequences through protective measures (Petrašová, 2008; Durugba and Balushi, 2022; Čechura and Vávra, 2017).

Risk can be expressed by the following equation (see Tab. 2):

$$R = P \times D \times O \quad (1)$$

Where:

- R is the risk itself,
- P is the probability of the threat occurring,
- D represents the consequences or impact of the threat,
- O is the detectability of the risk, i.e., the ability to identify the threat in time before it materializes (Petrašová, 2008; Durugba and Balushi, 2022; Čechura and Vávra, 2017).

This equation helps us quantify the risk and determine which factors should be considered when adopting preventive and protective measures.

For parameter P (probability of the threat occurring), the values are determined as follows:

1. Unlikely,
2. Unlikely to some extent,
3. Likely,
4. Highly likely.

For parameter D (consequences or impact of the threat), the values are determined as follows:

1. No harm,
2. Minor injury/infection/minor property damage/fatigue,
3. Permanent consequences/significant property damage,
4. Death/major property damage.

For parameter O (detectability of the risk, i.e., the ability to identify the threat in time before it materializes), the values are determined as follows:

1. Immediately detectable,
2. Detectable in the near future,
3. Difficult to detect,
4. Undetectable.

Tab. 2 Result matrix

Risk level	R
Insignificant	≤ 5
Acceptable	6-10
Unwanted	10-15
Unacceptable	≥ 15

Source: elaborated by authors

The FMEA method (Failure Mode and Effects Analysis) is an analytical technique used to identify potential failures and defects, describe their consequences, and determine the causes of these failures based on a systematic and structured evaluation of failures. An integral part of this method is the quantitative assessment of risks, which involves evaluating the severity of consequences, the probability of occurrence, and the likelihood of detecting the failure. These parameters are then combined to obtain the so-called Risk Priority Number (RPN) (see. Tab. 4) (Petrašová, 2008; Kress, 2016; Fiala, 2018).

The main benefits of the FMEA method are:

- The ability to assess the risk of potential failures, which allows for a better understanding of potential problems and their impacts,
- A systematic and collective approach to identifying risks, which involves multiple perspectives and expertise in problem identification,
- The ability to detect risks early in the design phase of a process, providing an opportunity for the prevention of undesirable events before the process is implemented or executed (Petrašová, 2008; Kress, 2016; Fiala, 2018).

From the provided Table 3, it is clear that the greatest risk of not performing a medical examination is the potential transmission of various diseases. This issue can have serious consequences, as migrants may carry infectious diseases that can spread rapidly due to their high numbers and complex mobility patterns. Ignoring medical screenings may lead to epidemics or the spread of dangerous infections, posing a significant threat not only to the migrants themselves but also to public health in the host country.

The second greatest risk arises from not conducting a security check, which could allow the entry of illegal or dangerous items, such as weapons, explosives, or other hazardous materials. This type of risk is extremely dangerous, as it could directly endanger the lives of people at the registration site and in the surrounding area. The possibility of weapons or explosives being smuggled into registration centres could lead to serious incidents such as attacks, injuries, or even fatalities. If these dangers are not detected in time, the consequences

could be tragic, resulting in bodily harm, serious injuries, or fatal accidents (Petrašová, 2008; Kress, 2016; Fiala, 2018).

For this reason, it is essential that during the registration of migrants, established procedures and measures outlined in the operational plan are strictly followed. These procedures are designed to minimize risks associated with the potential spread of diseases and security threats. Adhering to these procedures is crucial for ensuring the health and safety of both the migrants and the residents of the country. Preventing these risks is fundamental for maintaining stability and protecting public order, which is vital when managing and responding to crisis situations (Petrašová, 2008; Kress, 2016; Fiala, 2018).

Tab. 3 List of possible risks

	Risk description	P	O	D	R
1	Carrying a weapon, explosives or other dangerous materials	3	2	4	24
2	The danger of contracting a disease	4	4	2	32
3	Staff fatigue	3	3	2	12
4	Cold of the staff	2	1	2	4
5	Passing by an unwanted person	2	2	2	8
6	Petty theft	3	2	2	12
7	Damage to the device	2	2	3	12
8	Assault on staff	3	1	2	6
9	A fire	2	1	4	8
10	Missing/insufficient spaces	3	2	1	6
11	Poor language skills	3	2	1	6
12	Lack of strength	3	2	2	12

Source: elaborated by author

2.1 Ishikawa diagram

The Ishikawa diagram, also known as the cause-and-effect diagram, is a visual tool used to identify and analyse the relationships between causes and effects of specific problems or undesirable phenomena. Its name "fishbone" comes from its characteristic shape, where the head of the diagram represents the problem or effect (the consequence), and the "bones" represent various possible causes that could lead to this problem (Kruliš, 2011; Schwarz, 2021).

This diagram is particularly useful when analyzing complex problems, where it is necessary to recognize and map out the different factors that may influence a given situation. It helps teams visualize the relationships between various causes and consequences, allowing for a better understanding of the core of the problem and the development of effective solutions (see Fig. 4) (Kruliš, 2011; Schwarz, 2021).

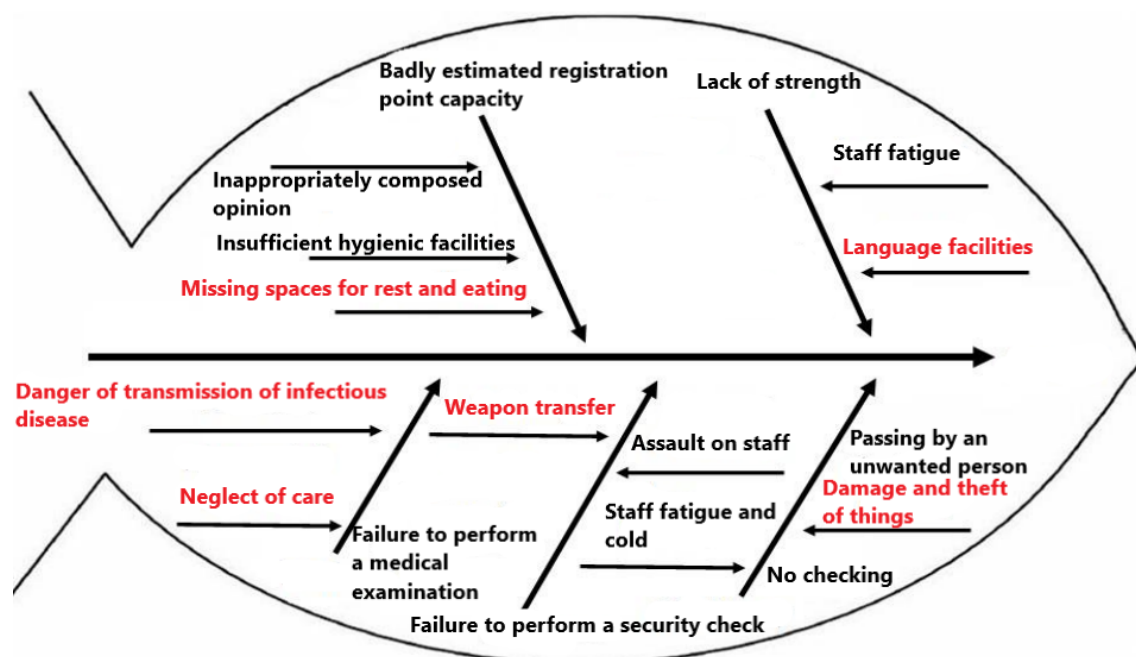


Figure. 4 Ishikawa diagram – occurrence of possible risks when a migrant is caught at the registration desk place
Source: Kruliš, 2011

One of the main advantages of the Ishikawa diagram is its suitability for team-based work. This tool encourages brainstorming and creative thinking, allowing different team members to contribute based on their expertise and diverse perspectives on the problem. Each participant can identify causes that are closest to them based on their professional focus or personal viewpoint, ensuring a comprehensive analysis. This aspect makes the diagram an effective tool for multidisciplinary teams, where various areas of expertise and experiences are combined (Kruliš, 2011; Schwarz, 2021).

The Ishikawa diagram is often used in combination with FMEA (Failure Mode and Effects Analysis) within quality management. Together, these methods enable the gathering and categorization of potential causes of problems and their consequences, leading to a better understanding of risks and their impacts. The outputs from the Ishikawa diagram can then be used for a Pareto analysis, which helps identify the most critical causes that need to be addressed when solving the problem. This process allows for effective resource allocation and solution prioritization, thereby improving the overall effectiveness of quality management (Kruliš, 2011; Schwarz, 2021).

Thus, the Ishikawa diagram is a powerful tool for visualizing complex problems, helping organizations better understand the causes of issues and determine where to focus on improvements, which leads to more effective management and risk reduction in various operational areas (Kruliš, 2011; Schwarz, 2021).

3 Conclusions

The presented paper focuses on evaluating the current approach to ensuring internal security at state borders, with a particular emphasis on the construction of registration centers, which are a key element in the context of the migration crisis. The paper also provides a detailed description of the approved standard plan designed to restore border security and establish

registration centers in the event of an unexpected emergency. This plan outlines the entities involved in handling such situations and specifies their roles and responsibilities during the implementation of measures (Law no. 387/2002, Law no. 129/2002, Law no. 42/1994, Law no. 315/2001).

The paper also includes a risk analysis, which assesses the potential risks that could arise if the established tasks and procedures for handling the migration crisis are not followed. Ignoring these measures could lead to failures in areas such as security, public health, or administrative issues related to the registration of migrants. Therefore, it is essential to develop accurate and detailed procedures that minimize risks and ensure an effective response from the involved entities (Law no. 387/2002, Law no. 129/2002, Law no. 42/1994, Law no. 315/2001).

During the implementation of the operational plan for addressing the migration crisis, the deployed components of the Integrated Rescue System were able to effectively deploy and take up their assigned positions and sectors according to the plan within the required timeframe. However, in the case of prolonged measures, it is necessary to consider the negative impact of the long-term absence of police forces assigned to protect the state borders, which may affect their ability to carry out regular duties within the interior of the country. These impacts may include increased criminal activity or insufficient coverage in other areas, which could reduce the effectiveness of police work within the country (Law no. 387/2002, Law no. 129/2002, Law no. 42/1994, Law no. 315/2001).

In terms of coordination and communication between the deployed units, communication was ensured at the basic operational level through radio connections via Matra-Pegas and a mobile secure platform. However, when performing tasks near the state borders, it became apparent that radio and GSM signal coverage in some locations was inadequate, which could hinder effective communication and coordination of interventions. This problem was further exacerbated by the lack of the possibility to use signals from foreign operators for the mobile secure platform, which could encounter technical limitations in managing operations at the borders (Law no. 387/2002, Law no. 129/2002, Law no. 42/1994, Law no. 315/2001).

Another important component of the paper is the verification of the establishment of registration centers in accordance with the operational plan, as well as the conduct of practical exercises on procedures in cooperation with the Ministry of the Interior's Department of Health Services. These drills focused on procedures in case infectious diseases were detected in some migrants. Based on the conducted exercises, no significant errors or shortcomings were found. However, it is recommended to equip healthcare personnel with protective equipment such as face masks, disposable gloves, disinfectant gels, and other necessary materials to ensure protection against infections (Law no. 387/2002, Law no. 129/2002, Law no. 42/1994, Law no. 315/2001).

In handling a crisis situation, it is essential to adhere to the designated number of deployed forces according to the operational plan. Currently, the procedures in this area follow predefined scenarios, although some procedures are only partially utilized. This is due to the fact that the situation is not standard but rather involves humanitarian assistance that flows both outward and inward within the country. This flexibility is crucial for adapting to dynamically changing conditions and continually requires adjustments based on the current situation (Law no. 387/2002, Law no. 129/2002, Law no. 42/1994, Law no. 315/2001).

Overall, it is critical that all components of the Integrated Rescue System, as well as other involved authorities, follow the precisely defined procedures to minimize risks associated with the migration crisis. A rapid and effective response to such an extraordinary situation requires not only sufficient manpower and resources but also high-quality coordination and preparedness for unforeseen circumstances (Law no. 387/2002, Law no. 129/2002, Law no. 42/1994, Law no. 315/2001).

Acknowledgement

This work is supported by the Scientific Grant Agency of the Ministry of Education, Science, Research, and Sport of the Slovak Republic and the Slovak Academy Sciences as part of the research project VEGA: 1/0588/21, "The research and development of new methods based on the principles of modelling, logistics and simulation in managing the interaction of mining and backfilling processes with regard to economic efficiency and the safety of raw materials extraction" and VEGA: 1/0430/22 "Research, development and concept creation of new solutions based on TestBed in the context of Industry 4.0 to streamline production and logistics for Mining 4.0".

References

- Barton, C., 2019. *Crisis Management and Logistics in High-Risk Environments*. London: Routledge.
- Betus, M., Sofranko, M., Feher, J., Cambal, J., Feher, D. and Ondov, M., 2022. Bases for vocational training and education of IRS units - rescue work in road tunnels. *Transport & Logistics: the International Journal*, 22(52), pp. 17-28.
- Betuš, M., Konček, M., Šofranko, M., Čambal, J. and Ondov, M., 2023. Methods of Extinguishing Fires in Objects with High Voltage. *Fire*, 6(11), 442.
- Čechura, L. and Vávra, L., 2017. *Security systems and crisis management*. Prague: Management Press Publishing House.
- Durugba, M., Ch. and Al-Balushi, Z., 2022. Supply chain management in times of crisis: a systematic review. *Manag Rev Q*, 73, pp.1179–1235.
- Fiala, P., 2018. *Coordination and logistics in rescue operations*. Prague: Grada Publishing House.
- Internal materials of the Ministry of the Interior of the Slovak Republic, 2022.
- Kruliš, P., 2011. *FMEA analysis in practice*. 2011, Bratislava: STU Publishing House.
- Kováč, V., 2013. *Integrated rescue system – Theory and practice*. Bratislava: Iura Edition Publishing House.
- Kováč, M., 2017. *Logistics for security forces and emergency services*. Bratislava: Iura Edition Publishing House.
- Kress, M., 2016. *Operation Logistics: The Art and Science of Sustaining Military Operations*. Second Edition. Boston: Springer. p.257.
- Law no. 387/2002 Coll. on managing the state in crisis situations outside of wartime and martial law.
- Law no. 129/2002 Coll. about the Integrated Rescue System.
- Law no. 42/1994 Coll. on civil protection of the population.
- Law no. 315/2001 Coll. about the Fire and Rescue Service.
- Ministry of the Interior of the Slovak Republic, 2018. *Model plan for dealing with extraordinary events*. Bratislava: Ministry of the Interior of the Slovak Republic.
- Martin, P. and Strelec, P., 2018. *Logistics and inventory management in rescue operations*. Ostrava: VŠB Publishing House.

- Petrík, J. and Jablonský, J., 2019. *Logistics and inventory management in crisis conditions*. Košice: Technical University.
- Petrášová, I., 2008. *Analysis of possible failure modes and consequences (FMEA): reference manual*. 4th ed. Prague: Czech Society for Quality. p.143.
- Schmidt, F. and Kalenská, M., 2020. *Crisis management and its logistical aspects*. Brno: University of Business.
- Schwarz, A., 2021. *The Role of Logistics in Crisis Management and Disaster Relief Operations*. Berlin: Springer.
- Škoviera, A. and Košťál, J., 2019. *Integrated rescue system and its logistical requirements for long-term interventions*. Košice: Publishing House of the Technical University.
- Štetina, J., 2014. *Healthcare and the integrated rescue system during mass accidents and disasters*. Prague: Grada. p.592.
- Tomašková, M., Balážiková, M., and Krajňák J., 2022. *Hazards related to activities of fire-rescue department members during the COVID-19 pandemic*. Scientific Journal of Silesian University of Technology. Series Transport, 117, pp.247-260.
- Tóth, D. and Kováč, F., 2020. *Logistics and management in crisis situations*. Bratislava: EKONÓM Publishing House.
- Varga, M. and Beránek, P., 2020. *Crisis management and logistics in practice*. Prague: Management Press Publishing House.
- Vlach, M., 2016. *Rescue and security operations in crisis conditions*. Brno: Masaryk University.
- Zátková, M. and Hanzlík, R., 2015. *Logistics in crisis situations and disasters*. Prague: ČVUT Publishing House.
- Zeman, T., Paulus, F. and Bednár, K., 2021. *Population protection and integrated rescue system I*. Brno: University of Defense. p.83.