ASPECTS OF IDENTIFICATION, ANALYSIS AND ASSESSMENT OF CRISIS THREATS IN THE CONTEXT OF NEW CHALLENGES FOR POLAND'S SECURITY

Agnieszka Terczyńska*
* Correspondence: agnieszka.terczynska@onet.pl

Abstract

Currently, we are dealing with an increasing number of crisis situations. The Covid-19 pandemic, the crisis on the Polish-Belarusian border and the war in Ukraine are examples of very serious crisis situations that the Polish state must deal with. Optimal actions related to crisis response require optimization of actions in each phase of crisis management. The first two of them: preparation and prevention are of key importance for the functioning of crisis management entities and the entire environment in the response phase. However, the effort and resources expended at this stage must be based on the principles of economy. The main purpose of the research, the results of which are presented in the article, is the choice and critical evaluation of selected methods useful in the implementation of the process related to the proper identification, analysis and assessment of the risk of threats. The article presents a scientific solution to research problems: Which crisis threats currently impose the greatest risk? Which methods can be used to identify, analyze and assess these crisis threats? Which of these methods can make it possible to use the latest technological advances? How to adjust the pragmatics of conduct to effectively identify, analyze and assess risks? The research process considers the latest technological achievements, including artificial intelligence methods, the increase in computing power and its availability, as well as the requirements stemming from the current complexity of the political and economic and social environment. Methods of analyzing literature, legal acts, normative and available statistical data were used. The outcome of adopting the utilitarian objective is to identify potential areas of change in the approach to identifying, analyzing and assessing the risk of crisis situations in Poland.

Keywords: crisis management, risk assessment, quantitative methods, qualitative methods, Russian aggression

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Introduction

We are currently faced with an increasing number of incidents of an emergency nature, for which the development of prevention and combat procedures is becoming an increasingly demanding task. The Covid-19 pandemic, the crisis on the Polish-Belarusian border, the war in Ukraine, the Wagner group are examples of very serious crisis situations that the Polish state must deal with. According to research of the Public Opinion Research Centre (CBOS, 2013), as many as 12 percent of the respondents stated that the Poles were united by crisis situations, misfortunes, great tragedies and catastrophes. The effect of activities executed by entities responsible for the implementation of crisis management processes should be that this community can operate effectively and achieves its goals in terms of ensuring the conditions for survival and effective counteracting of situations of this type. Actions related to crisis response requires the optimization of phases of crisis management. The first two of them: preparation and prevention are of key importance for the functioning of crisis management entities and the entire environment in the response phase. However, the effort and resources expended at this stage must be based on the principles of economy (Tworzydło, Gawroński, 2022). These effects can only be achieved with full knowledge of the risk of potential crisis situations (OECD Policy Responses to Coronavirus, 2022). They need to be known based on quantitative and very often qualitative methods (Gavurova, Kelemen, Polishchuk, 2022). Effective implementation of this objective requires proper preparation, including the implementation of risk management processes.

The processes of identifying, analyzing and assessing the risk of crisis events are extensively discussed in the scientific literature (Kalbassi, 2016; Ahmad, 2019; Gizun, Avkurova, Hriha, Monashnenko, Akatayev, Aleksander, 2021). The basic elements of these processes are well known. They are mainly derived from proven risk management standards such as FERMA (Federation of European Risk Management Associations), AS/NZS 4360:2004 or ISO 31000. Risk identification understood as a process consisting in determining potential risks, causes and sources of their occurrence, determining consequences and identifying entities affected by a given risk, in addition to identifying the risk, consists of 5 basic activities, which are: determining the causes of the risk, specifying the type of risk, characterizing the identified types of risk, identifying potential consequences and identifying entities affected by the risk (Kokot-Stępień, 2015). Very often the risk identification process is greatly simplified. This simplification consists in using a catalogue of threats. There are often threats listed in the national emergency management plan (Kąkol, Marczewski, 2016). Such action, on the one hand, allows maintaining an appropriate level and standard throughout the country, and at the same time carries a negative potential related to the possibility of ignoring new, non-standard or subject to changes, consolidation or convergence threats. The world, which has been changing extremely dynamically in the last decade, causes

new threats to appear or those previously considered insignificant to start playing a leading role. The data contained in the National Plan of Crisis Management – KPZK 2021/2022 are a kind of preliminary guideline. It is a document that allows further implementation of tasks related to the actual identification, analysis and assessment of risk at the appropriate levels of crisis management. However, it is not a document that should fully determine the processes related to crisis management. On pages 5–7 of this document, on the basis of criteria that are not fully verifiable, some risks were considered to exist and others not, and a risk matrix was included that rated them on a 5-point scale (minimal, low, medium, high, extreme). Even at this stage of the analysis, the document has not been prepared in a way that meets current needs and opportunities. This thesis is supported by two indicators. Firstly, the scale used is typically qualitative and completely subjective. It is extremely difficult to make economically rational decisions using such solutions (Skomra, 2017). The second indicator is the number of threats in particular areas of the matrix. There can hardly be any risks in Poland that can be assessed as minimal. There should be significantly more of them than the serious ones. As regards risks assessed as low, we have only one risk. This means that persons responsible for risk management in Poland focus their attention only on serious risks. This is an action with positive effects. With limited resources, focusing attention on serious risks is more economically beneficial. However, it has extremely serious drawbacks in a changing world. The lack of monitoring of risks whose threat is minimal or small means that any changes taking place in them are imperceptible to the crisis management system in Poland. This makes it impossible to forecast, prepare for changes and react in an efficient manner. Unfortunately, as research shows, this is very often repeated at lower levels of crisis management (Kąkol, Marczewski, 2016).

The next steps, i.e. risk analysis and assessment, have also been extensively described in the literature (Sheehan, 2019; Hassel, & Cedergren, 2021). Risk analysis understood as a fundamental element of risk management in the organization, allows the creation of information necessary to make the right decisions (Szlachcic, 2014). As part of the analysis, the risk should be precisely defined, establishing its causes, scope, limits and specifying the type of possible threats that may affect the achievement of objectives set by the entity (Szlachcic, 2014). We know how to analyze risk, we are familiar with quantitative and qualitative methods. Unfortunately, this process is now often underestimated. Paradoxically, this is an extremely important process for the use of modern technologies, as will be shown later in the article. Risk assessment is possible with the use of quantitative, qualitative and mixed methods (Shurda, 2020). There are a number of studies indicating that, depending on the situation, in order to maintain the economy of the procedure and demonstrate the legitimacy of spending resources, quantitative methods may prove to be the most appropriate (Aven, 2016). What is more, in crisis management in Poland, situations where quantitative methods are used for the purposes of risk analysis and assessment are extremely rare. An example is part

A of the National Crisis Management Plan 2021/2022. In the part of the document entitled "Characteristics of hazards and assessment of the risk of their occurrence, including critical infrastructure" has no single quantified value. In practice, the proper assessment of the risk of hazards has been completely omitted (Krajowy Plan Zarządzania Kryzysowego aktualizacja, 2021/2022).

To summarise, the universality and availability of scientific sources in risk identification, analysis and assessment does not translate into application and changes in crisis management processes. They are considerably dispersed and concern detailed and specific elements. Their practical application requires consolidation and creation of complete procedures.

Methodology

The main purpose of the research, the results of which are presented in the article, is to select and critically evaluate selected methods useful in the implementation of the process related to the proper identification, analysis and risk assessment of crisis threats. This goal has been decomposed into specific cognitive, theoretical and utilitarian goals. The research allowed a scientific solution to the defined research problems: Which crisis threats currently pose the greatest risk? Which methods can be used to identify, analyze and assess these crisis threats? Which of these methods can make it possible to use the latest technological advances? How to adjust the pragmatics of conduct to effectively identify, analyze and assess risks? The research process takes into consideration the latest technological achievements, including artificial intelligence methods, the increase in computing power and its availability, as well as requirements of the current complexity of the political and economic and social environment. Methods of analyzing literature, legal acts, normative and available statistical data were used. The effect of implementing the utilitarian goal is to identify potential areas of change in the approach to identifying, analyzing and assessing the risk of crisis situations in Poland.

Results

The Act of April 26, 2007 on crisis management (Polish Journal of Laws/Dz.U. of May 21, 2007, No. 89, item 590, as amended) sets up a crisis management system in emergency situations that requires specific actions by government administration bodies and local government bodies in situations where there are no grounds yet for introducing one of the states of emergency.

The Act specifies the competent authorities responsible for crisis management, and defines their tasks; rules of operation in a crisis situation, as well as the principles of financing crisis management tasks (Ciekanowski, Nowicka, Wyrębek, 2017).

We define Crisis Management as the management of an organization (system) under pressure, which we resolve in tense situations. These activities are intended to prevent, counteract and react in the event of a disruption. The current definition of crisis management is limited to dealing with any threat to internal security. These situations may include: risk, tension and security risk. Model crisis management is aimed at counteracting threats, preparing for such a situation in the event of its occurrence, maintaining this situation and restoring stability. An important aspect is the fact that crisis management applies to fires, natural disasters and all threats that may paralyze social life (e.g. pandemics, terrorist attacks, natural disasters, etc.).

1. When preparing an effective anti-crisis program, you should answer four questions.
2. What has caused the previous crisis? What has caused the current crisis? What problems can arise if the current situation is not resolved?
3. Were there any warning signs signalling the occurrence of a crisis situation?
4. What is the complexity of the technical, human and organizational factors?
5. Which parties are affected by crises (Mitroff, Pearson, 1998)?

In the earliest phase associated with a crisis situation, what matters is the rapid detection of indicators that point to the possibility of the first signals emerging. The next step is to prepare and take up preventive measures. These primarily include tasks related to the preparation of operational activities and all management structures to identify defects that can still be corrected.

In the Republic of Poland, the two most important documents that define the boundaries of crisis management are the Constitution of the Republic of Poland of April 2, 1997, and the Act of April 26, 2007 on crisis management.

As a fundamental law, the Constitution describes security issues, including three types of emergencies:

- Martial law,
- State of emergency,
- State of natural disaster.

The main type of threats are unacceptable ones, i.e. threats to life, health or the environment, against which autonomous action by services and inspections should be taken (Siekiewicz-Małyjurek, 2015).

At the moment (July 2023) there are many crisis situations with a high probability of occurrence and potentially serious consequences. The most important of them are as follows:

1. COVID-19 pandemic or a virus with similar characteristics/mutations - Despite progress in the fight against COVID-19, there is still a risk of further waves of infections, virus mutations and the emergence of new, more infectious variants. The pandemic has a huge impact on human health and life, as well as on the economy and social life.
2. Climate change – Rising temperatures, extreme atmospheric phenomena, drought and floods have a negative impact on the lives of people and animals

and on the natural environment. These effects will only become intensified as the climate continues to warm up further.
3. Armed conflicts – Armed conflicts continue in many regions of the world, with tragic consequences for the civilian population. The aggravation of conflicts may lead to escalation and further destabilization of the situation.
4. Cyberattack – Increased dependence on information technology and the development of cybercrime mean that there is a high risk of a cyberattack, which can lead to serious economic, social and political consequences.
5. Extremism and terrorism – The threat from extremists and terrorists remains high and their actions have the potential of causing massive damage and loss of life and property.
6. Spreading widespread disinformation by the total opposition before the parliamentary elections in October this year intended to destabilize the state and conflicts of citizens.

It should be borne in mind that due to the tense international situation, some of the indicated threats may be initiated, directed and supported by hostile states. This means that their likelihood and effects, mainly in terms of scale, may be disproportionate to events of this type that the Polish state has dealt with so far. It is important to carry out the processes of decomposition of the listed threats. A cyber-attack on a country's critical infrastructure can be preceded by information-gathering and capacity-building activities designed to paralyse structures to counter such threats, such as NASK, CERT or CSIRT. Ongoing identification and supervision should lead to effective identification of hostile activities and changes in risk management processes, e.g. related to risk assessment and the control methods used. This is extremely important because changes in the level of risk can be exponential. Economy in the selection of control methods leads to profits and proper resource management, but at the same time may be a huge weakness and consequently requires constant monitoring of the risk level of threats and immediate changes.

A proper response of the State to the above-mentioned threats requires an efficiently functioning crisis management system. Proper identification, analysis and risk assessment is a necessary condition for the operation of the crisis management system. Identification requires a number of deliberate actions based on verified research methods. It is necessary to perceive the state and the nation as an element of a complex global system, where many of the key models allowing effective forecasts contain variables concerning phenomena outside Poland. Such an approach may allow proper identification and diagnosis of threats. Threat identification should be carried out at many levels. A risk that affects an individual element of the system (low level) does not necessarily affect the whole system in the same way. In turn, a risk significant for the entire system will propagate to lower levels (Młodzik, 2013). Therefore, it is important to identify and monitor all threats, including risks of a currently low level. Changes in the level of probability or effects of insignificant risks may cause them to become significant, and trends

of changes diagnosed earlier allow effective prevention of their intensification. Paradoxically, changes in the level of risk of minor threats may also be a prelude to changes taking place in serious threats. A comprehensive approach to the entire system allows maintaining better awareness of the threats that surround us. Those responsible for the hazard identification processes should not omit threats that are insignificant or difficult to assess, as the entire risk management process does not gain anything from it, and the losses may prove to be irreparable (Renn, 2020).

Another element of the process is an analysis of already identified threats. Its purpose should be to identify and validate variables relevant to understanding the identified risks. "Description and understanding" should now lead to the creation of good quality forecasting and simulation models of the described phenomena, so that it is possible to use modern decision support tools and thus effective, repeatable and high-quality operation. The risk management process for civil, rescue and emergency planning is implemented in many countries. It is possible to use diverse proven methodologies already developed in developed countries, such as the Multi Hazard Identification and the Risk Assessment (USA), the All-Hazards Risk Assessment Methodology (Canada), DEMA's Model for Risk and Vulnerability Analysis (Denmark), A National Risk Assessment for Ireland (Ireland), the Method of Risk Analysis for Civil Protection (Germany). All of them have been discussed in detail in the literature. It is also certain that the methods used must and do make extensive use of data and are methods that combine quantitative, qualitative and mixed issues. Despite the increasing possibilities in the field of data collection and processing, including the use of artificial intelligence mechanisms, quantitative methods may turn out to be insufficiently accurate due to the available data. However, they cannot be underestimated, and the approach indicating that the identification of threats should be exclusively qualitative, based mainly on expert methods supplemented only to some extent with statistics and historical data, is incorrect. What is more, it should be borne in mind that the literature lacks studies that would indicate the current probability of occurrence of individual crisis situations. There is no shortage of information on the EU's response to crises and building resilience on both the RCB and European Council websites, but there are no quantitative data representing the level of risk (https://www.consilium.europa.eu/pl/policies/eu-crisis-response-resilience/). It is obvious that risk estimation (assessment) is crucial to building resilience. It allows choosing the right methods of risk control and spending the right resources. Many scientific publications indicate the advantages of quantitative methods in the implementation of threat forecasting tasks, e.g. "Expert-mathematical method as a tool supporting forecasting and scientific solving of complex tasks" (Zając, 2013). In the article, the authors describe the expert-mathematical method as a tool intended to support forecasting and scientific solving of complex tasks. They indicate the superiority of forecasting by quantitative methods over qualitative ones in the context of solving complex problems. Regardless of the need to complement quantitative methods by qualitative methods, for the purposes of many decision-making processes, the

former should not be omitted. This principle is often adopted in public finance management. According to it, expenditure decisions should be made based on reliable and credible numerical and quantitative data. This has been included in many legal acts in force in Poland (Polish Journal of Laws/Dz.U. from 2021, item 2414). For the proper implementation of crisis management processes in the prevention and preparation phases, it is therefore necessary to attempt to quantify the risk of individual threats. In order to properly assess the risk of threats, it is necessary to have the right data at disposal. Both historical and current data are needed. Sample historical data are quantitative ones on variables related to the causes of events, the events themselves, impacts, reconstruction costs, etc. (Vujatović, Milanović, Janjić, 2022). Furthermore, assessing the effectiveness of risk management measures and actions taken in the response phase also requires quantitative data (Hassani, Silva, 2015). The need to collect a wide spectrum of data is also indicated by the authors of "How to Choose the Right Forecasting Technique" published in Harvard Business Review. In fact, to conduct high-quality analytical processes, all possible information on the entire environment of crisis events should be compiled. This applies not only to those directly related to the ones listed above, but also indirectly, and even those for those these relationships are not obvious. The analysis of such amounts of data will soon be not only possible, but also efficient. On the other hand, this amount will have a positive impact on the quality of assessments and forecasts (Alpaydin, 2010).

Discussion

The amount and type of data currently necessary to replace or supplement qualitative methods with quantitative methods requires the use of information systems and methods of artificial intelligence. The conducted research clearly shows that the main factor that determines effective actions related to identification, analysis and risk assessment of crisis threats is the consolidation of current data sources into a single resource, on the basis of which it will be possible to perform complex analyses, also using artificial intelligence (Rodríguez-Rodríguez, Rodríguez, Shirvanizadeh, Ortiz & Pardo-Quiles, 2021). Regardless of how it is structured and which of its elements will be located in individual resources, perhaps geographically dispersed, the central system must be able to access them all. Setting up a nationwide central crisis management information system, identifying its existing elements, creating new ones, integrating and preparing appropriate tools for the right recipients is crucial for efficient functioning in today's world. The existence of independent information systems: voivodeship (provincial), poviat (county) and commune is, on the one hand, a symptom of high resourcefulness of decision-makers, and on the other hand, the weakness of the system and the inability to operate in accordance with current standards. As it has been shown, there are a number of ready-made solutions that will allow establishing high-quality tools for identifying, analyzing

and assessing the risk of threats in this type of system. It is certain that changes associated with the scale will not be a revolution, but rather a certain adaptation that we have observed in adapting the capabilities of Polish information systems to the needs of the Covid-19 pandemic. Paradoxically, some of these changes are already being implemented. The hope is that this adaptation will be fast enough to ensure operational efficiency in the coming crises. Regardless of the conclusions presented, given research limitations, the article is only one of numerous voices in the discussion, pointing to the need for not only systemic, but also mental changes. The way management understands needs and conceptualizes requirements in crisis management processes is the first and necessary step (Errida, Lotfi, 2021).

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References

1. Ahmad, N.A., (2019). *Crisis Intervention: Issues and Challenges*. Proceedings of the 4th ASEAN Conference on Psychology, Counselling, and Humanities (ACPCH 2018), https://doi.org/10.2991/acpch-18.2019.105
2. Alpaydin, E., (2010). Introduction to machine learning (2nd ed.). Cambridge, MA: MIT Press.
3. Aven, T, (2016). Risk assessment and risk management: Review of recent advances on their foundation. *European Journal of Operational Research*, 253(1), 1–13. https://doi.org/10.1016
4. Ciekanowski, Z., Nowicka, J., Wyrębek, H., (2017). Zarządzanie zasobami ludzkimi w sytuacjach kryzysowych, Warsaw: CeDeWu, p. 3.
5. Errida, A., Lotfi, B., (2021). The determinants of organizational change management success: Literature review and case study. *International Journal of Engineering Business Management*, 13. DOI:10.1177/18479790211016273
6. Gizun, A., Avkurova, Z., Hriha, V., Monashnenko, A., Akatayev, N., Aleksander, M., (2021). Method for the Criticality Level Assessment for Crisis Situations with Parameters Fuzzification. In: Hu, Z., Petoukhov, S., Dychka, I., He, M. (eds.), Advances in Computer Science for Engineering and Education IV. ICCSEEA 2021. *Lecture Notes on Data Engineering and Communications Technologies*, vol. 83. https://doi.org/10.1007/978-3-030-80472-5_13
7. Hassani, H., Silva, E.S., (2015). Forecasting with Big Data: A Review. *Ann. Data. Sci.,* 2, 5–19. https://doi.org/10.1007/s40745-015-0029-9
8. Hassel, H., & Cedergren, C., (2021). Integrating risk assessment and business impact assessment in the public crisis management sector. *International Journal of Disaster Risk Reduction*, 56, 102136. https://doi.org/10.1016/j.ijdrr.2021.102136

9. Kąkol, U., Marczewski, M., (2016). Metody analizy i oceny ryzyka stosowane w zarządzaniu kryzysowym na poziomie gminnym, *Zesz. Nauk. UEK*, 11(959): pp. 53–69, DOI: 10.15678/ZNUEK.2016.0959.110
10. Kokot-Stępień, P., (2015). Identyfikacja ryzyka jako kluczowy element zarządzania ryzykiem w przedsiębiorstwie. Zeszyty Naukowe Uniwersytetu Szczecińskiego, 855, *Finanse, Rynki Finansowe, Ubezpieczenia,* 74, vol. 1, DOI: 10.18276/frfu.2015.74/1-46, pp. 533–544.
11. Młodzik, E., (2013). Identyfikacja ryzyka – kluczowy element procesu zarządzania ryzykiem w jednostkach gospodarczych, Zeszyty Naukowe Uniwersytetu Szczecińskiego no. 765, *Finanse, Rynki Finansowe, Ubezpieczenia*, 61, vol. 2, pp. 439–450.
12. Mitroff, I., Pearson, Ch., (1998). Zarządzanie sytuacją kryzysową, Warsaw: Business Press, p. 26.
13. OECD Policy Responses to Coronavirus (COVID-19) (2022). *First lessons from government evaluations of COVID-19 responses: A synthesis*, https://www.oecd.org/coronavirus/policy-responses/first-lessons-from-government-evaluations-of-covid-19-responses-a-synthesis-483507d6/[03.07.2023].
14. Renn, O., (2020). New challenges for risk analysis: systemic risks. *Journal of Risk Research*, 24(1), 127–133. https://doi.org/10.1080/13669877.2020.1779787
15. Rodríguez-Rodríguez, I., Rodríguez, J., Shirvanizadeh, N., Ortiz, A. & Pardo-Quiles, D., (2021). Applications of Artificial Intelligence, Machine Learning, Big Data and the Internet of Things to the COVID-19 Pandemic: A Scientometric Review Using Text Mining. *International Journal of Environmental Research and Public Health*, 18(16), 8578. https://doi.org/10.3390/ijerph18168578
16. Rozporządzenie Ministra Finansów z 17 grudnia 2021 r. w sprawie prowadzenia ewidencji przychodów i wykazu środków trwałych oraz wartości niematerialnych i prawnych (Polish Journal of Laws/Dz.U. from 2021, item 2414).
17. Sienkiewicz -Małyjurek, K., (2015). Skuteczne zarządzanie kryzysowe, Warsaw: Difin, pp. 24–29.
18. Sheehan, C., (2019), Risk and Crisis Management. In: Holland, P., (ed.) *Contemporary HRM Issues in the 21st Century*, Emerald Publishing Limited, Bingley, pp. 89–101. https://doi.org/10.1108/978-1-78973-457-720191012
19. Shurda, C., (2020). Methods of qualitative and quantitative risk analysis. *Zbalansovane Prirodokoristuvannâ*, 4, 64–72. https://doi.org/10.33730/2310-4678.4.2020.226622
20. Skomra, W., (2017). Risk Management as Part of Crisis Management Tasks. *Foundations of Management*, 9(1), 245–256. https://doi.org/10.1515/fman-2017-0019
21. Szlachcic, D., (2014). Risk analysis and risk management as part of the crisis management system in the organization, *Zeszyty Naukowe Uniwersytetu Przyrodniczo-Humanistycznego w Siedlcach*, No. 103 Series: Administracja i Zarządzanie, pp. 230–241.
22. Vujatović, I., Milanović, S., Janjić, I., (2022). Natural Disasters and Risk Management: A Theoretical Overview. In: Prevention and Management of Soil Erosion and Torrential Floods, Milutinović, S. & Živković, S. (eds.), Hershey, PA: IGI Global, pp. 21. https://doi.org/10.4018/978-1-7998-8459-0.ch002

23. Zając, S., (2013). Metoda ekspercko-matematyczna jako narzędzie wspomagające prognozowanie i naukowe rozwiązywanie skomplikowanych zadań. *Prace Naukowe Politechniki Rzeszowskiej. Elektronika*, issue 66, 5–10.
24. Tworzydło, D., Gawroński, S., (2022). Model skuteczności reakcji w organizacji czułej na zdarzenia kryzysowe oraz wizerunkowe element składowe system odpornościowego organizacji. *Studia Medioznawcze*, 23, 3 (90).

ASPEKTY IDENTYFIKACJI, ANALIZY I OCENY ZAGROŻEŃ O CHARAKTERZE KRYZYSOWYM W KONTEKŚCIE NOWYCH WYZWAŃ DLA BEZPIECZEŃSTWA POLSKI

Abstrakt

Niniejszy artykuł pokrótce opisuje i wyjaśnia zdarzenia o charakterze sytuacji kryzysowych. W artykule jest wiele odnośników do wojny w Ukrainie czy kryzysu migracyjnego na granicy polsko-białoruskiej. Opisano procedury zapobiegania i zwalczania wynikających sytuacji kryzysowych. Celem artykułu jest wykazanie wymagań i obowiązków, do których zobowiązane jest państwo polskie i wszystkie jego organy w celu zwalczania sytuacji kryzysowych. Głównym celem przedstawionych badań była: identyfikacja, asymilacja i krytyczna ocena wybranych metod przydatnych w realizacji procesu związanego z właściwą identyfikacją, analizą i oceną ryzyka zagrożeń o charakterze kryzysowym.

W procesie badawczym zastosowano najnowsze osiągnięcia technologiczne w tym metody sztucznej inteligencji. Artykuł prezentuje metodę analizy literatury, aktów prawnych, normatywnych oraz dostępnych danych statystycznych. Wykazano potencjalne obszary zmian w zakresie podjęcia do realizacji identyfikacji, a także analizy i oceny sytuacji w kryzysach.

Słowa kluczowe: zagrożenia, bezpieczeństwo Polski, sytuacje kryzysowe, wojna w Ukrainie, sztab kryzysowy, zarządzania ryzykiem, analiza i ocean zagrożeń