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PRACTITIONERS' PERCEPTION OF THE ROLE OF EXERCISES IN CIVIL EMERGENCY PLANNING

Abstract

Civil emergency planning is a key instrument utilized in order to prepare for crisis management, including crisis response essentially. In Poland the crisis management system has been regulated by a legal act in 2007. The law formulates the system framework, its aims and tasks. Hence until today the system has been few times audited by the Supreme Audit Office (NIK). The results of the audits are not fully satisfactory what have been deeply elaborated in the article by desk research including the reports and other sources critical analysis. Furthermore, the audits results have been confronted with the results of diagnostic survey conveyed on a sample of 160 practitioners of the system. The survey was aimed at collecting, analysing and interpreting the practitioners' perceptions on the aspects criticised by the Supreme Audit Office's reports. In addition some statistical analyses have been made, including correlations and significance tests, in order to ensure validity and reliability of the findings. Finally, an elaboration on exercises as a valuable mechanism for civil emergency planning improvements have been delivered.

As such the paper aims at verification of the Supreme Audit Office arrangements by confronting them with the results of the conducted survey. Therefore, following questions have been posed: how the civil emergency planning processes are perceived by the practitioners of the crisis and disaster management system? Secondly, whether exercises might be a relevant instrument to verify and validate existing plans? In majority the key findings of the survey confirm the arrangements of the Supreme Audit Office, enriching them with identification of highly probable causes of this state of the art as well as reasoning behind the revealed status of the civil emergency planning.

Key words

Civil protection, crisis management, civil emergency planning, exercises

Introduction

Exercises, dedicated to emergency, crisis and disaster management, are one of the activities that enable the evaluation of the processes carried out as part of civil emergency planning¹. Civil emergency planning in the Polish law is defined as all of organizational measures aimed at preparing the public administration for crisis and disaster management, including planning in support of the Armed Forces of the Republic of Poland in case of their use, as well as planning the use of the armed forces to carry out crisis and disaster management tasks. This broad pool of measures embraces the following tasks²:

- preparation of crisis management plans,
- preparation of structures to be activated in crisis situations,
- preparation and maintenance of resources necessary for the execution of tasks included in the crisis management plan,
- maintenance of databases necessary for the crisis management process,
- preparation of solutions in case of destruction or disruption of critical infrastructure,
- ensuring consistency between crisis management plans and other plans drawn up in this regard by the relevant

public administration bodies, the obligation to execute which results from separate regulations.

The tasks referred to above should take into account:

- ensuring the functioning of public administration in a crisis situation,
- ensuring the functioning and restoration of critical infrastructure,
- ensuring continuous monitoring of threats,
- rational management of forces and resources in crisis situations,
- assistance provided to the population to ensure their survival conditions in emergency situations.

Thus, civil emergency planning serves crisis and disaster management, which includes all of systemic solutions for the protection of the population, implemented by public authorities at all levels, in cooperation with specialized organizations and institutions, with the aim of preventing difficult, dangerous situations that pose a threat to life, health, property, the environment and infrastructure, the preparation of the management system, and in the event of the occurrence of hazards - shaping and controlling their course (response) in a manner that ensures the minimization of losses, a socially acceptable level of security and the reconstruction of social structures after a disaster³.

¹ S. J. Rysz, J. Ziobro, Znaczenie ćwiczeń w procesie zapewniania bezpieczeństwa wewnętrzneg,o [in:] Rola i zadania administracji publicznej w zarządzaniu bezpieczeństwem w Polsce, J. Kisielnicki, T. Płusa, S. Rysz, J. B. Rajchel, K. Rajchel [Ed.] Rzeszów 2017, p. 387–388; T. Zwęgliński, Metodologiczne podstawy teorii ewaluacji ćwiczeń w zakresie zarządzania kryzysowego i ochrony ludności, [in:] Racjonalizacja zarządzania jednolitymi formacjami umundurowanymi odpowiedzialnymi za bezpieczeństwo wewnętrzne – Tom IV, B. Wiśniewski, T. Zwęgliński [Ed.], Warszawa 2019, p. 252-277; T. Zwęgliński, Evaluating exercises efficiently, "Crisis Response Journal" 2021, 16(2), p. 96-97; T. Zwęgliński, R. Brancaleoni, A. Mijatović, Good practices in organization of crisis management exercises in order to build society resilience, "Zeszyty Studenckie Pro Publico Bono" 2018, 1(2), p. 169.

² Ustawa z dnia 26 kwietnia 2007 r. *o zarządzaniu kryzysowym*, Dz.U. 2007 nr 89 poz. 590.

³ J. Gołębiewski, Gotowość kryzysowa państwa, czyli jak sprostać zagrożeniom, "Wiedza Obronna" 2004, nr 2, p. 164.

Emergency and civil protection exercises are, or at least should be, inseparably and logically connected with the implementation of the above tasks⁴, in particular with the creation and updating of plans for crisis and disaster management, but also other plans relevant to ensuring an acceptable level of security for citizens, including plans for rescue, flood control, civil defence, emergency management in case of a radiological threat, or the provincial operational plan of the National Emergency Medical Service⁵. The aforementioned plans are just a few of those that should be created and updated in the civil emergency planning process⁶. Clearly, the multiplicity of the aforementioned plans generates certain challenges and problems facing those functioning in the public administration, parsing security issues7. This situation is not without the attention of state control entities, such as, for example, the Supreme Audit Office (NIK). Since the entry into force of the Law on Crisis Management, the Supreme Audit Office has on several occasions dealt with the activities of

the public administration in the field of emergency management and civil protection in the broadest sense⁸.

One of the NIK's reports covering the results of the 2010-2013 audit of crisis management plans found dualism in the planning of activities. The NIK found that "separately created are crisis management plans and civil defence plans, which deal with common issues, i.e. ensuring the cooperation of government and local government bodies, as well as coordinating their activities in preventing threats to life, health or property and threats to the environment, state security and maintaining public order"9. In the case of the operation of such a complex and comprehensive system, the delay of one element translates into delays for the others¹⁰. The situation is also exacerbated by the fact that some of the existing sub-plans - this again applies to each level of government - contain errors or do not contain the information that should be there. In addition, the NIK found that "some of the municipal and district emergency management plans are incompatible with other plans,

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⁴ J. Ziobro, Rola oraz znaczenie ćwiczeń w procesie zarządzania podmiotami odpowiedzialnymi za zapewnienie bezpieczeństwa wewnętrznego w wymiarze mikro i makro, [in:] Racjonalizacja zarządzania jednolitymi formacjami umundurowanymi odpowiedzialnymi za bezpieczeństwo wewnętrzne, Tom IV, B. Wiśniewski, T. Zwęgliński [Ed.], Warszawa 2019, p. 233-251.

⁵ B. Wiśniewski, Podstawy prawne ćwiczeń obronnych w podsystemie niemilitarnym systemu obronnego RP, [in:] Metodyka przygotowania i prowadzenia ćwiczeń podsystemu niemilitarnego w systemie obronnym RP, W. Kitler [Ed.] Warszawa 2006, p. 51-66; R. Gwardyński, Organizacja działań złożonych podejmowanych na rzecz bezpieczeństwa wewnętrznego, [in:] Racjonalizacja zarządzania jednolitymi formacjami umundurowanymi odpowiedzialnymi za bezpieczeństwo wewnętrzne, Tom VII, B. Wiśniewski, R. Gwardyński, T. Zwęgliński [Ed.] Warszawa 2021, p. 8-20.

⁶ R. Radkowski, T. Zwęgliński, Organizational Aspects of the Rescue System in Poland, [in:] Security and Law in the Cognitive and Utilitarian Context, B. Wiśniewski, P. Kobes, G. Sander [Ed.], Hamburg 2015, p. 145-158.

⁷ PStudia Bezpieczeństwa, część 4. Wyzwania współczesności, D. Williams [Ed.], Kraków 2012, p. 345-502.

⁸ Informacja o wynikach kontroli Ochrona ludności w ramach zarządzania kryzysowego i obrony cywilnej, KPB.430.009.2017 Nr ewid. 147/2018/P/17/039/KPB, Warszawa 2019, p. 7.

⁹ Informacja o wynikach kontroli *Przygotowanie systemu ochrony ludności przed klęskami żywiołowymi oraz sytuacjami kryzysowymi*, KPB-4114-01-00/2012 Nr ewid. 148/2013/I/12/006/KPB, Warszawa 2013, p. 8-9.

¹⁰ B. Manc-Bogdańska, *Koordynacja w zespołach zadaniowych*, [in:] AUkłady złożone w naukach społecznych, Nowak, W. Borkowski, K. Winkowska-Nowak [Ed.], Warszawa 2010, p. 79-136.

which is of great importance, especially in the case of protection against natural disasters"¹¹. In another information, this time from 2018, the NIK stresses that "there is no effective system of civil protection in Poland¹².

The bodies responsible for carrying out tasks in the field of crisis management and civil defence have not created structures and effective procedures adequate to the existing threats, and have not provided the necessary resources to enable proper management in the event of emergencies, among other things. Recognizing the commitment and readiness to provide assistance in the event of various types of disasters by firefighters, police officers, soldiers and ordinary citizens, the NIK notes that the failure to prepare adequate plans and procedures, as well as the failure to provide conditions for adequate coordination of activities, may reduce the effectiveness of the activities of services responsible for protecting the population, especially in the event of an emergency (...). Irregularities in the area of crisis management were found in all the units covered by the audit, and their scale and significance prove that these problems are systemic"¹³. The activity of the Supreme Audit Office further indicates that:

the planning process, which is currently being implemented, does not allow for effective preparation of civil protection activities, the reason for which may be ambiguous and imprecise regulations governing this area, as

well as unreliable actions of the competent authorities,

- the practical possibility of using the plans in the framework of crisis management is very limited,
- objections to the implementation of crisis planning tasks refer to all stages of the planning cycle, which should be understood as the periodic implementation of the stages, analysis, development of the plan, as well as its implementation, testing and activation,
- the role of an essential document necessary for the development of crisis management plans, i.e., guidelines and recommendations, through which a higher-level body is able to influence the content of plans drawn up at lower levels, has been marginalized,
- none of the developed and approved crisis management plans was assessed by the NIK as reliably prepared and complete,
- the main irregularities concerned their non-compliance with the requirements of the Law on Crisis Management, as well as the recommendations of the bodies that approved the plans,
- updating of crisis management plans except for provincial plans – generally consisted only of editorial and technical corrections (resulting, for example, from changes in personnel, contact numbers and amendments to legal acts).

Conducting control activities, despite fulfilling signalling, preventive, instructional, corrective and creative

¹¹ NIK o zarządzaniu kryzysowym, https://www.nik.gov.pl/najnowsze-informacje-o-wynikach-kontroli/nik-o-zarzadzaniu-kryzysowym (access: 01.03.2021 r.).

¹² https://www.nik.gov.pl/kontrole/P/17/039/ (access: 26.04.2022 r.).

¹³ Informacja o wynikach kontroli Ochrona ludności w ramach zarządzania kryzysowego i obrony cywilnej, KPB.430.009.2017 Nr ewid. 147/2018/P/17/039/KPB, Warszawa 2019, p. 9.

functions, has not brought tangible benefits in the sphere of civil protection over the past few years¹⁴.

These negative statements of the Supreme Control Office raise a question on how the civil emergency planning processes are perceived by the practitioners of the crisis and disaster management system? Secondly, whether exercises might be a relevant instrument to verify and validate existing plans?

The aim of the paper is to verify the findings of the Supreme Audit Office by confronting them with the results of the conducted survey.

Materials and method

For the purpose of the survey there have been theoretical and empirical research methods utilized. As such the critical review of literature and reports of the Supreme Audit Office have been conducted as a desk research. Furthermore, a diagnostic survey with a questionnaire technique has been utilized as well. The survey has been done online via Google forms survey tool with a group of 160 practitioners working for the crisis and disaster management system in Poland on different levels of public administration (from municipal to central level). The sample has been randomized with a snow ball method. In addition the collected data have been statistically processed with correlation methods and diagnostic tests for significance of

differences. The key and significant results of these calculations have been presented in the paper. Last but not least is to be said that the research has been carried out in frames of a statutory research work realized at the Main School of Fire Service in Warsaw titled *Systemic analyses of planning processes on different levels of public administration tailored for ensuring security* (no. S/E-422/16/17), and the results composed in course of a scientific internship realized in the WSB University in Dąbrowa Górnicza (Poland).

Results and discussion

Among 160 respondents who are employees of the crisis and disaster management system at all levels of administration across the country indicates that 25% of them were convinced that current legislation clearly indicates what plans should be developed as part of civil emergency planning (Figure 1). The largest share of the survey sample was the group that thought it was rather clear (43.1%). Of particular concern is the fact that nearly a third of respondents were unable to answer this question in a value-laden manner or expressed the opinion that the regulations (rather) ambiguously define the issue under study. Thus, it is possible to accept the thesis that the legal dimension may be one of the reasons for the state of affairs previously identified by the NIK.

¹⁴ A. Czermiński, M. Czerska, B. Nogalski, R. Rutka, Organizacja i zarządzanie, Gdańsk 1998, p. 65.





The findings of NIK are also confirmed in the survey when it comes to so-called "soft law," i.e. guidelines for developing plans (Figure 2). The majority of respondents confirmed the problems identified by the NIK, namely that guidelines issued by the superior body lead to duplication (total of yes or rather yes responses – 84.4%) and inconsistency (58.7%) of content between plans operating in the same administrative division of the country.





Moreover, 46.9% of respondents (answers yes, rather yes, difficult to say) were not convinced that the guidelines for the development of plans ensure that there are no contradictions or mutually exclusive content in the plans in question (Figure 3). The problem expressed in the respondents' opinion may be the reason for the marginalization of higher-level guidelines, which the Supreme Audit Office also wrote about in its audit report.

Figure 3. Contradictions or mutually exclusive contents in the plans related to the civil emergency planning (n=160)



Source: Own elaboration.

The survey results suggest that there is still much to be done in the legal and formal space of civil emergency planning. In reference to the low assessment done by NIK on the practical applicability of the plans, further survey results can be cited. Respondents asked about the clarity of the presentation of algorithms for communication between civil protection entities in crisis and disaster management plans were also significantly divided in their opinions. As it turns out, this element looks better in vertical communication, which may be dictated by the hierarchical nature of security systems operating in Poland. In this case, 33.1% of respondents had doubts (answers no, rather not, difficult to say) about the clarity of these schemes, while in the system of horizontal communication, such as between municipalities or districts, the matter looked already somewhat worse. For this question, 48.1% of respondents already had doubts about the clarity of horizontal communication algorithms (Figure 4).





Another aspect related to the NIK's conclusion regarding the limited practical applicability of the plans is the issue of achieving a common content-wise consensus. In the survey conducted, 17.5% of respondents were convinced that the process of setting a consensus on the content of plans between entities, whose direct interaction is required during an emergency response, is functioning well enough (Figure 5). However, noteworthy is the fact that the better educated respondents were inclined to state more often than the less

educated that the mechanism of reaching an agreement on the plans content needs improvements. The non-parametric Kryskal-Wallis two-sided multiple comparisons test showed the significance of this difference of opinions at the p=0.006 level (i.e., p<0.1), making it possible to generalize this result to the broader population. In conclusion it might be stated that the higher education of the respondent surveyed, the more infirmities he/she perceived in the functioning process of agreeing on the plans' content.



no
rather no
difficult to say
rather yes
yes

Source: Own elaboration.

In addition, the survey showed that only slightly more than half of the respondents (58.7%) had used or rather used the plans in a crisis and disaster response, which would support the NIK's conclusion regarding the difficulties associated with the practical use of such documents (Figure 6). Although the reason for the result could just be the lack of occurrence of a crisis or disaster response need as well.

Figure 6. Utilization of the plans in the response phase (n=160)



Figure 5. Clarity of the mechanism on reaching an agreement on the content of the plans between entities intended to participate in the crisis and disaster response (n=160)

Source: Own elaboration.

With regard to the NIK's conclusion about the lack of reliability and completeness in the development of the audited plans, as well as the "apparent" updating of the plans, it is worth citing other results of the survey. As they show, respondents perceive that an insufficient number of people are often delegated to both, develop (Figure 7) and update (Figure 8) the plans. Slightly better in the opinion of respondents is the qualification of these people, although it seems that the situation in this regard could be much better.



Figure 7. Quantity (a) and quality (b) of personnel tasked to develop a plan (n=160)



Figure 8. Quantity (a) and quality (b) of personnel tasked to update a plan (n=160)

Importantly, analysis of Pearson's linear correlation coefficient showed that respondents indicating that there were enough people inclined to say that the quality of their preparation was also sufficient, while those who believed that there were too few of these people were simultaneously inclined to perceive their inadequate level of substantive preparation. This is confirmed by the values of the strength of the correlation relationship shown at the average level (for the process of developing plans, the coefficient was 0.48; for updates, 0.62). Each of the tests confirmed statistical significance at p<0.05. The conclusion that can be drawn leads to the conclusion that the small number of people who can handle the development and updating of plans (often a situation peculiar to lower levels of public administration due to staff shortages) is negatively reinforced by the aspect of weaker substantive preparation of employees. In contrast, where departmental personnel resources are greater (a situation inherent to higher levels), the substantive preparation of employees is perceived as better.

This raises the question of whether these unsatisfactory results of NIK audit, in large part confirmed by the results of the surveys conducted, can be offset assuming an improvement in the state of understanding of the importance of exercises to the civil emergency planning process? Probably yes, although this requires an amount of work, related to raising awareness of the value of exercises, and perhaps most importantly, providing concrete solutions for their organization and, in particular, exercise evaluation. Indeed, it turns out that nearly 30% of respondents to the cited survey felt that updating plans

(including the crisis management plan, rescue plan, etc.) does not require, or is unlikely to require, checking the changes made through the implementation of exercises. On the other hand, the results show that there is a large group of respondents (more than 50%) who believe that any change in plans should, or rather should, be checked in this way (Figure 9). So, for the most part, respondents recognize the need to verify the changes made to plans, although there is still a sizable group who believe that this type of verification is unnecessary (29.4%) or are not convinced (16.9%).

Figure 9. Percentage distribution of opinions of employees of crisis management departments on the need to verify, in the form of exercises, changes introduced in crisis management plans (n=160).





Source: Own elaboration.

The second part of the above thesis is confirmed by the answers of respondents who were asked on the most common reasons for updating crisis and disaster management plans (Figure 10). As it turns out, outcomes of exercises unfortunately do not play significant role in this matter, while the dominant part of the reasons for plans is the legal requirement to update (58.8%).



Figure 10. Reasons for plans update (n=160)

Source: Own elaboration.

It is worth mentioning that the need to verify how the system works after introducing changes in plans is perceived to a greater extent by better educated people. This was again confirmed by the result of the non-parametric Kruskal-Wallis two-way multiple comparisons test at the significance level of the identified differences of p=0.003 (i.e., p<0.05).

Figure 11. Meeting the planned tasks with dedicated resources to realize these tasks (n=160)





The presented results of NIK audit, as well as the survey conducted, indicate a rather worrying symptom that may result in having not fully useful plans (possibly procedures) for crisis and disaster management. As said, the results of the survey largely confirm the conclusions of the NIK audit¹⁵. NIK rightly states that "the content of the crisis management plan should be modified under the influence of exercises outcomes", which is not always shared by practitioners of the system. In the NIK's opinion, the modification of plans determined by the outcomes of exercises is expedient and can have a real impact on simplifying and speeding up introducing necessary changes to plans. However, the survey again showed that a significant number of system practitioners do not share this opinion for some reason. Moreover, NIK's report states that the lack of direct regulation of the absolute necessity to update plans based on the outcomes of exercises, entails the opposite relationship, namely, the lack of verification and validation of plans by exercises is one of the reasons for sporadic updates of these plans. The NIK points out that no significant changes are made to the crisis and disaster management plans, which could indicate implementation of exercises outcomes16.

The relatively infrequent updates to the plans may have a number of reasons. In addition to those already presented, one can also point to the phenomenon of rational ignorance¹⁷. It occurs when the cost of organizing exercises exceeds the expected value of the benefits of conducting them. In this context, on the side of costs, at least the financial, time or organizational outlay is obvious. On the other hand, among the benefits one can point to many measurable, but at the same time difficult to measure, factors such as acquired knowledge, skills and experience of exercise participants, strengthening of cooperation and trust between exercising entities or acquisition of information allowing to validate the change made in the plan/procedure¹⁸. One of the necessary conditions for this equation to yield the desired positive, i.e. greater, result on the benefit side is a professionally designed, planned, organized and conducted exercise evaluation process. Only such guarantees accurate and reliable conclusions, which translate directly into benefits in the form of objective knowledge of reality, which is what, as a rule, those commissioning the exercises care about.

The above data reinforce the conviction that there is some room that requires work to raise awareness of the value of organizing, and perhaps most importantly, evaluating properly exercises, which should translate into better, more consistent and directional civil emergency planning, while in the long term, into higher efficiency of the crisis

¹⁵ Raport Najwyższej Izby Kontroli Ochrona ludności w ramach zarządzania kryzysowego i obrony cywilnej, KPB.430.009.2017, Nr ewid. 147/2018/P/17/039/KPB, Warszawa 2018, s. 35-50.

¹⁶ L. G. Canton, Emergency Management. Concepts and Strategies for Effective Programs, Wiley, Hoboken 2020, p. 242-243.

¹⁷ M. Hetmański, Problem wiedzy niepewnej w koncepcji racjonalności ograniczonej [in:] Z. Drozdowicz, Z. Melosik, S. Sztajers [red.] O racjonalności w nauce i w życiu społecznym, Wydawnictwo Naukowe Wydziału Nauk Społecznych Uniwersytetu im. Adama Mickiewicza, Poznań 2009, s. 172.

¹⁸ R. Beerens, Improving disaster response evaluations. Supporting advances in disaster risk management through the enhancement of response evaluation usefulness, Lund University (Szwecja), Lund 2021, p. 20.

and disaster management system and other systems working to protect the population.

Let's return for a moment to the NIK audit. According to the law, the Government Security Centre was designated as the body obligated to organize, conduct and coordinate crisis management exercises, as well as to participate in such exercises nationally and internationally. At the regional level, this task has been entrusted to the heads of crisis management in the field, i.e., voivodes, district governors, city and village mayors. The law obliges the aforementioned bodies to manage, organize and conduct exercises. It should be clearly emphasized that the Supreme Audit Office's report (NIK) confirmed the performance of these tasks by all the aforementioned bodies from the county level upwards¹⁹. However, at the municipal level, it was found that 17% of the inspected municipalities did not carry out this activity, which also confirms the conclusions of the presented survey.

A follow up inspection by the Supreme Audit Office (NIK), this time conducted in 2018, unfortunately showed a deterioration in the surveyed area. The report states that "crisis management exercises, which all crisis management bodies at the local level are obliged to organize, as an instrument for, among other things, familiarizing employees with the contents of the plan and verifying the procedures contained therein, were used extremely rarely. It should also be noted that crisis management bodies at the district and municipal levels were most often only participants in provincial exercises, while they rarely organized exercises for their subordinate structures²⁰. Such a conclusion again corresponds with the previously cited results of a survey.

In the same document, NIK stresses that "the obligation to carry out exercises has been defined by law at all levels of the crisis management process, making them – as part of the planning cycle – a useful tool for carrying out the main functions, including the verification, in the form of exercises, of the adopted crisis management procedures that define how to deal with crisis situations especially with regard to the threats for which the conducted characterization showed the greatest risk of their occurrence. It should also be emphasized that the relevance of holding exercises on a cyclical basis was emphasized by the Minister of Internal Affairs and Administration in guidelines issued to provincial crisis management plans, indicating the conclusions of the exercises as a premise for making changes to the plan without delay". Moreover, the analysed report states that at the lowest levels of public administration, i.e. the municipality and the district, "a negligible number of exercises" were organized. As written in the report, the reason for this state of affairs is "irregularities related to the organization and conduct of training and exercises by district heads and mayors, which confirm the lack of proper preparation for the implementation of civil protection tasks. Doubts

¹⁹ Raport Najwyższej Izby Kontroli *Wykonywanie przez organy administracji publicznej zadań w zakresie zarządzania kryzysowego*, KAP-4101-04/2010, Nr ewid. 146/2011/P/10/006/KAP, Warszawa 2011, s. 26-31.

²⁰ Raport Najwyższej Izby Kontroli Ochrona ludności w ramach zarządzania kryzysowego i obrony cywilnej, KPB.430.009.2017, Nr ewid. 147/2018/P/17/039/KPB, Warszawa 2018, s. 35-50.

about the lack of elementary knowledge of this area of activity are also confirmed by the explanations obtained in the course of the NIK audit, in which the passivity in the field of exercises was explained by the lack of detailed regulations in the Law on Crisis Management as to the number and frequency of organization and conduct". The result of the survey again confirms the above statement of the NIK. One can risk the thesis that the insufficient number of people shown earlier in the diagnostic survey, as well as their sub-optimal substantive preparation, may be one of the reasons for "irregularities related to the organization and conduct of training and exercises by district heads and mayors".

The last of the survey results (Figure 12) confirms the there is a need to step up efforts to support organizers

of exercises in order to make their outcomes have bigger impact on updating the plans. When asked whether the civil emergency planning provides effective preparation for crisis and disaster management, respondents mostly (33.1%) said it was difficult to determine. 29.4% of respondents favoured the rather ves option, and 23.8% rather no. Such a high level of ambiguous responses may indicate the need for efforts to strengthen the processes of designing, planning, organizing, conducting, and perhaps most importantly, evaluating exercises. As the survey found, better educated people were more likely to be ambiguous in this regard (yes or difficult to say) than less educated ones. This was shown by the result of the Kruskal-Wallis test at the level of statistical significance of differences of p=0.03 (p<0.05).

Figure 12. Effectiveness of civil emergency planning towards improvement of the crisis and disaster management (n=160)





Source: Own elaboration.

It is also worth mentioning that respondents understandably associate the effectiveness of the civil emergency planning with the quality of preparation of planners. In the study, this relationship was confirmed by analysis of Pearson's linear correlation coefficient, which was 0.4 (the average strength of the statistical association of responses) with statistical significance at p<0.05.

Summary

The presented results of the statutory research do not give much optimism, especially regarding the importance of exercises for improving civil emergency planning processes. This is evidenced, for example, by the respondents' answers regarding the reasons for making changes to crisis and disaster management plans where only a few of the respondents cited lessons from exercises as a reason. Moreover, only less than 25% of the surveyed (n=160) employees of emergency management and civil protection departments were convinced that changes made to the plans in question should be verified and validated during exercises. The crisis and disaster management system practitioners' perception of the civil emergency planning processes is in majority cases quite pessimistic. The conclusions of the survey are in line with and confirm the findings of the Supreme Audit Office from the inspections carried out.

Concluding the above considerations, it should be said that the presented survey results again confirm the thesis that there is a need to support exercise organizers, in particular by systematizing the process of their evaluation, as well as pointing out the advantages of a methodical approach to this issue.

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Bibliography

- Beerens R., Improving disaster response evaluations. Supporting advances in disaster risk management through the enhancement of response evaluation usefulness, Lund University (Sweden), Lund 2021.
- Canton L. G., *Emergency Management. Concepts* and Strategies for Effective Programs, Wiley, Hoboken 2020.
- Czermiński A., Czerska M., Nogalski B., Rutka R., *Organizacja i zarządzanie*, Gdańsk 1998.
- Gołębiewski J., Gotowość kryzysowa państwa, czyli jak sprostać zagrożeniom, "Wiedza Obronna" 2004, Nr 2.
- Gwardyński R., Organizacja działań złożonych podejmowanych na rzecz bezpieczeństwa wewnętrzneg,o [in:] Racjonalizacja zarządzania jednolitymi formacjami umundurowanymi odpowiedzialnymi za bezpieczeństwo wewnętrzne, Tom VII, B. Wiśniewski, R. Gwardyński, T. Zwęgliński [Ed.], Warszawa 2021.
- Hetmański M., Problem wiedzy niepewnej w koncepcji racjonalności ograniczonej, [in:] O racjonalności w nauce i w życiu społecznym, Z. Drozdowicz, Z. Melosik, S. Sztajers [Ed.], Poznań 2009.
- Informacja o wynikach kontroli Ochrona ludności w ramach zarządzania kryzysowego i obrony cywilnej, KPB.430.009.2017 Nr ewid. 147/2018/P/17/039/KPB, Warszawa 2019.

- Informacja o wynikach kontroli Ochrona ludności w ramach zarządzania kryzysowego i obrony cywilnej, KPB.430.009.2017 Nr ewid. 147/2018/P/17/039/KPB, Warszawa 2019.
- Informacja o wynikach kontroli Przygotowanie systemu ochrony ludności przed klęskami żywiołowymi oraz sytuacjami kryzysowymi, KPB-4114-01-00/2012 Nr ewid. 148/2013/I/12/006/KPB, Warszawa 2013.
- Manc-Bogdańska B., Koordynacja w zespołach zadaniowych, [in:] Układy złożone w naukach społecznych, A. Nowak, W. Borkowski, K. Winkowska-Nowak [Ed.], Warszawa 2010.
- Metodyka przygotowania i prowadzenia ćwiczeń podsystemu niemilitarnego w systemie obronnym RP, Kitler W. [Ed.], Warszawa 2006.
- Racjonalizacja zarządzania jednolitymi formacjami umundurowanymi odpowiedzialnymi za bezpieczeństwo wewnętrzne, Tom IV, B. Wiśniewski, T. Zwęgliński [Ed.], Warszawa 2019.
- Radkowski R., Zwęgliński T., Organizational Aspects of the Rescue System in Poland [in:] B. Wiśniewski, P. Kobes, G. Sander [ed.] Security and Law in the Cognitive and Utilitarian Context, Verlag Dr. Kovać GMBH Fachverlag fur Wissenschftliche Literatur, Hamburg 2015.
- Raport Najwyższej Izby Kontroli Ochrona ludności w ramach zarządzania kryzysowego i obrony cywilnej, KPB.430.009.2017, Nr ewid. 147/2018/P/17/039/KPB, Warszawa 2018.
- Raport Najwyższej Izby Kontroli Wykonywanie przez organy administracji publicznej zadań w zakresie zarządzania kryzysowego, KAP-4101-04/2010, Nr ewid. 146/2011/P/10/006/ KAP, Warszawa 2011.

- Rysz S. J., Ziobro J., Znaczenie ćwiczeń w procesie zapewniania bezpieczeństwa wewnętrznego [in:] J. Kisielnicki, T. Płusa, S. Rysz, J. B. Rajchel, K. Rajchel [ed.] Rola i zadania administracji publicznej w zarządzaniu bezpieczeństwem w Polsce, Wydawnictwo Politechniki Rzeszowskiej, Rzeszów 2017.
- Security and Law in the Cognitive and Utilitarian Context, B. Wiśniewski, P. Kobes, G. Sander [ed.], Verlag Dr. Kovać GMBH Fachverlag fur Wissenschftliche Literatur, Hamburg 2015.
- Studia Bezpieczeństwa, część 4. Wyzwania współczesności, Williams P. D. (Ed.), Kraków 2012.
- Ustawa z dnia 26 kwietnia 2007 r. o zarządzaniu kryzysowym, Dz.U. 2007 nr 89 poz. 590.
- Wiśniewski B., Podstawy prawne ćwiczeń obronnych w podsystemie niemilitarnym systemu obronnego RP, [in:] Metodyka przygotowania i prowadzenia ćwiczeń podsystemu niemilitarnego w systemie obronnym RP, Kitler W. [Ed.], Warszawa 2006.
- Zarządzanie kryzysowe. Teoria, praktyka, konteksty, badania, eds. J. Stawnicka, B. Wiśniewski, R. Socha, WSPol., Szczytno 2011.
- Ziobro J., Rola oraz znaczenie ćwiczeń w procesie zarządzania podmiotami odpowiedzialnymi za zapewnienie bezpieczeństwa wewnętrznego w wymiarze mikro i makro, [in:] Racjonalizacja zarządzania jednolitymi formacjami umundurowanymi odpowiedzialnymi za bezpieczeństwo wewnętrzne, Tom IV, B. Wiśniewski, T. Zwęgliński [Ed.], Warszawa 2019.
- Zwęgliński T., Brancaleoni R., Mijatović A., Good practices in organization of crisis management exercises in order to build society resilience, "Zeszyty Studenckie Pro Publico Bono" 2018, 1(2).
- Zwęgliński T., *Evaluating exercises efficiently*, "Crisis Response Journal" 2021, 16(2).

- Zwęgliński T., Metodologiczne podstawy teorii ewaluacji ćwiczeń w zakresie zarządzania kryzysowego i ochrony ludności, [in:] Racjonalizacja zarządzania jednolitymi formacjami umundurowanymi odpowiedzialnymi za bezpieczeństwo wewnętrzne – Tom IV, B. Wiśniewski, T. Zwęgliński [Ed.], Warszawa 2019.
- NIK o zarządzaniu kryzysowym, https://www. nik.gov.pl/najnowsze-informacje-o-wynikach-kontroli/nik-o-zarzadzaniu-kryzysowym

https://www.nik.gov.pl/kontrole/P/17/039.

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