

Summary

The aim of the Ph.D. thesis is to assess the level of situational awareness of society in relation to threats and to identify and analyze currently used technologies and assess their usefulness in shaping situational awareness in crisis situations.

The main hypothesis is as follows: The population information system has significant gaps, which negatively affect the level of situational awareness of the population in conditions of threats and crises, which can be eliminated through the use of modern ICT solutions (IT/ICT).

The main hypothesis was decomposed into five detailed hypotheses:

1. The situational awareness of the population about threats and the risk of loss of security in the conditions of materialization of threats and crises is at a low level.
2. In the functioning system of informing the population about threats, the level of situational awareness of the population is not determined by the complexity of this system.
3. The effectiveness and efficiency of the population information system when crisis situations occur is too low and there is a negative correlation between the level of situational awareness and the efficiency of the information system in situations of threats and crises.
4. Modern information and communication technologies (ICT's) are fully useful and can constitute an alternative to traditional means, an efficient way of communication in shaping the desired level of situational awareness of the population in conditions of threats and crises.
5. There is a strong positive correlation between the use of modern information and communication technologies (ICT's) in population information systems and the level of situational awareness of the population.

The main research problem focuses on answering the question:

1. How to define the level of situational awareness for the needs of the population information system in crisis situations and how to ensure its expected (desired) level?

For the main research problem, five detailed research problems were formulated:

- 1.1. What is the essence and what may be the systemic determinants of the population's situational awareness of threats and crisis situations?

- 1.2. What is the current level and what are the determinants of situational awareness (including the ICT technologies used so far) of the population about threats and crisis situations in the existing crisis management system of the Republic of Poland?
- 1.3. How modern IT/ICT technologies can affect the effectiveness of the process of informing the population and increasing its situational awareness?
- 1.4. Should modern technologies be introduced and why to increase the situational awareness of the population and how to effectively increase this awareness by introducing modern IT/ICT technologies in the context of eliminating or duplication of traditional media?
- 1.5. What may be the level of implementability of the proposed concept and the usability and functionality of the expected technological solutions?

The answer to the above questions allowed us to examine the possibility of increasing the level of situational awareness of citizens and crisis management teams, which may contribute to more effective preparation for threats and improvement of the process of combating the effects of crisis situations.

Based on a literature search, research and expert interviews, it was shown that there are gaps in the currently functioning Crisis Management System, and the possibilities of its improvement are seen in both modern IT/ICT technologies and traditional solutions, which, when properly prepared, can contribute to the increase in situational awareness. on threats and improving the activities of rescue services and Crisis Management Teams.