

SUMMARY OF DOCTORAL DISSERTATION

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The subject of this dissertation is the analysis of the organization of rescue operations during mass casualty incidents in Poland, with particular emphasis on systemic, organizational, and operational conditions affecting the effectiveness of response activities. The study focuses on identifying key problems occurring in the process of organizing rescue operations and on developing a concept for improving the functioning of the rescue system in situations characterized by high scale and complexity.

The aim of the dissertation was to analyze the organization of rescue operations during mass casualty incidents in Poland, identify factors influencing their effectiveness, and develop proposals for improvements in selected areas of the rescue system. Particular attention was given to the following areas: dispatching of rescue units, command and control of rescue operations, communication management, logistical support, and the organization of emergency medical response, including triage and decontamination processes.

The research hypothesis assumed that the effectiveness of organizing rescue operations during mass casualty incidents in Poland depends primarily on the quality of organization and the level of integration of key components of the rescue system.

The research process was based on methods including analysis of literature, legal acts and system documents, case studies of selected mass casualty incidents, and empirical research conducted in the form of expert interviews with representatives of rescue system entities experienced in organizing and conducting rescue operations during such incidents.

The structure of the dissertation includes theoretical, analytical, and conceptual parts. The first part presents theoretical foundations and systemic aspects of the rescue system functioning in Poland in the context of mass casualty incidents. The subsequent part focuses on the analysis of the specificity of rescue operations and the identification of key organizational

difficulties occurring in practice. Particular attention was paid to problems arising in the initial phase of incidents, related to limited situational awareness and high informational pressure.

Based on the conducted analyses and empirical research results, a concept for improving the organization of rescue operations during mass casualty incidents was developed. The proposed directions of improvement include enhancing decision-making competencies of command personnel, standardization of organizational procedures, improvement of communication systems, strengthening logistical support, and optimization of triage and casualty flow management processes.

An important outcome of the dissertation is the development of an original, integrated model of rescue operation organization during mass casualty incidents, based on a modular approach. The model encompasses key functional areas of the rescue system and highlights their interdependencies, emphasizing the role of efficient information flow as an integrating factor of the entire response process.

The results of the research confirmed the adopted hypothesis and demonstrated that, despite a high level of formal preparedness of the rescue system in Poland, there is a need for further improvement of organizational mechanisms, particularly in the initial phase of response to large-scale incidents.

The conclusions of the dissertation may serve as a basis for improving the organization of rescue operations in Poland, especially in the areas of command staff training, development of inter-agency cooperation procedures, and strengthening the organizational resilience of the rescue system to large-scale and complex incidents.