

**NATIONAL CRITICAL INFRASTRUCTURE PROTECTION
REGIONAL PERSPECTIVE**

Belgrade, December 2013

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EDITORIAL

The strengthening of national capacity and regional cooperation in relation to the critical infrastructure protection is a common goal of Southeast European countries according to their national security strategies and contemporary security threats to the critical infrastructure protection. This objective is in line with the European perspective of the countries of Southeast Europe, as well as the Critical Infrastructure Protection Programme of the European Union.

The dependence of modern society on the technological development and complex systems is in direct proportion to the threats to these systems. Natural and technological threats, terrorism, crime and other dangers face individual countries with challenges and dilemmas in defining and protecting the critical infrastructure, the disruption of which can cause serious disturbances in the functioning of both economy and society. New risks and threats to the critical infrastructure - social engineering and cyber threats have become reality. On the other hand new technologies (information technology, nanotechnology, nuclear technology, GM etc.) enhance the capabilities of facing those threats, but can also be considered as threats per se. The tremendous development of information and communication technology, revive the question of using social network as a part of the solution, but a part of the problem, too. The application of new tools in the protection of the CI from unpredictable threats (morphological analysis, automatization of processes) is necessary.

The challenges and policies of the national critical infrastructure whose boundaries are rather vague can be considered as a network of interrelationships, as follows: public sector - private sector; the state – the state; the state - the group of states.

The relationship between the public and private sector is being observed from the national and international perspective. A key challenge arises from the relationship between the public and private sectors and protecting the segments of critical infrastructure owned by the private sector. From economic point of view, there is no will to invest in an adequate infrastructure protection without the financial support from the state. The problem of harmonizing the daily operational activities and corporate security policies on the one hand, and the defense and security policy and legislation of the states on the other hand is even more complicated due to the fact that a large number of critical infrastructures are managed by multinational corporations that often operate beyond national protection policy and legal constraints. Protection is also compromised due to the race for competitive position in the economic, technological and financial environment, which has increased the flexibility in the free market of goods and services and makes critical infrastructure even more vulnerable.

The complexity of public-private partnerships within the critical infrastructure protection is especially multiply on the level of international and regional cooperation, taking into account the different national, political and security interests of individual countries, restrictions of financial resources and constraints influenced by the legislation. With the exception of nuclear energy sector which is well-regulated both on national and international level, the issue of ownership and public-private partnership is expected to be solved by the delineation of responsibilities in terms of safety and security and the protection of public interest.

The relationship between a state and a group of states reflects through an integrated approach based on the need to adopt common policies and international standards for the critical infrastructure protection, and the fact that all Southeast European countries are

not members of the EU, regardless of the common European perspective. The EU Directive on critical infrastructure protection is not applied comprehensively in the national critical infrastructure protection as it does not cover certain areas but knowledge and protection tools and processes can be transferred and implemented among the sectors.

Due to the aforementioned, this book aims to open discussion between experts in different fields. In addition to knowledge in the field of security, economy, legal and organizational matters, engineering and other findings are also presented, including their implementation into practice (Bologna system has a solution, but the question is how to implement it).

The authors of the book try to make a step forward in order to find solutions for the needs and capabilities of critical infrastructure protection from different disciplinary theoretical and professional points of view.

From the scientific point of view: Differences in defining the critical infrastructure have negative effects that affect the integrity of the protection system. The differences originate primarily from the lack of a unique definition of terrorism and other criminal threats to infrastructure, which interferes with effective communication in information exchange. In addition, the differences in the perception of the importance of infrastructure are apparent among the certain stakeholders, including the differences between the business community and government authorities. Two extremes are presented: underestimating the importance of critical infrastructure or overestimating the criticality of certain critical infrastructure sectors in order to gain a monopoly in the critical infrastructure protection. It is necessary to gain the theoretical and scientific consensus on the definition of critical infrastructure, with the application of two main approaches: critical infrastructure is determined by the symbolic importance that it has for the community or system, and on the basis of structural position that it has within the overall infrastructure.

From the technical point of view: articles are focused on considering the problems of critical infrastructures protection from different perspectives, including risk management, business continuity management and crisis management. These perspectives emphasize the importance of protecting those segments of the critical infrastructure that enable the exchange of security information. Special attention is paid to the development of specific risk management approaches in certain critical infrastructure sectors, especially in the energy sector and nuclear energy sector, including the monitoring mechanisms of organizations and agencies that manage the critical infrastructure protection.

Articles indicate not only the importance of the exchange of ideas and best practices between the countries in the Region in the area of public-private partnership in the management of critical infrastructure, but also interoperability between human and technical resources. A comprehensive risk management approach based on national and international experiences is required, but there are no universally applicable solutions.

From the legal point of view: Since the modern society faces an expansion of cyber attacks on the critical infrastructure, and those attacks are becoming more sophisticated and more dangerous, the legal aspects of critical infrastructure protection are primarily focused on the protection of information technology from cyber attacks. The grounds for the escalation of these attacks is increased by the standardized protocols to be applied in the field of critical infrastructure protection, which make information systems more vulnerable and susceptible to the mentioned threats like never before.

From the economic point of view: Critical Infrastructure protection is considered both from the aspect of business operations and processes and economic feasibility of investment in a certain field.

From the aspect of social responsibility: Attacks on the critical infrastructure can have significant consequences for public health. Therefore, the application of appropriate standards of social responsibility within the business community in conjunction with the government support in terms of investment in security is required to provide minimum public interest in the critical infrastructure protection.

From the defence policy point of view: In order to perform the third mission of the army, the authors consider the concept of domestic legislation and need to customize the contemporary approach based on the principle of OSA (open structure architecture). This concept involves the organizational structure of military forces as security forces.

The scientific contribution of the book reflects in highlighting regional cooperation between the experts from the academic and business environment, expanding the network of knowledge and experience in the field of risk and crisis management related to the critical infrastructure. We hope that this would contribute to facilitating the transfer and application of scientific knowledge in the practice of critical infrastructure protection. It should be added that higher education programs need to be aligned with the requirements of the practice, which will ensure that academic society provides an appropriate education to professionals who will monitor the complex requirements of the security environment based on the results of scientific research.

A specific goal of the book is the theoretical conceptualization of the topics covered, and professional discussion in the field of critical infrastructure protection, with the focus on the exchange of experience not only from the Southeast Europe, but also from other European and non-European countries. With this in mind, the International Scientific Book is designed in a manner which allows authors from more experienced countries to give their perspectives first, to be followed by the experience of representatives from the Southeast European countries.

The main focus areas of the book are: 1) Contemporary Security Threats and Critical Infrastructure, 2) Regional and National Protective Policy and Options, 3) Risk and Crisis Management approaches, and 4) Technologies related to Critical Infrastructure Protection.

Belgrade, December 2013.

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SECTION I

CONTEMPORARY SECURITY THREATS AND CRITICAL INFRASTRUCTURE

