

Enhancing the Resilience of Critical Infrastructures in the Republic of Bulgaria and the Former Yugoslav Republic of Macedonia: The Role of the Legal and Strategic Framework¹

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Abstract

The article analyzes the legal and strategic framework for the protection of critical infrastructure in the Republic of Bulgaria and the Former Yugoslav Republic of Macedonia. The paper's focus is on the role of the legal and strategic framework for enhancing the resilience of critical infrastructures in two neighboring South-East European countries – one of them a new EU Member States and the other an applicant for the EU and NATO. The research problem is important because the protection of critical infrastructure is an essential element of national and regional security policy and ultimately allows effective exercise of the rights and freedoms of citizens in the two friendly states. The disruption or destruction of critical infrastructure systems / sectors / subsectors may lead to a collapse in the state and society and stop their normal functioning. Critical infrastructure protection is an administrative-managerial and operational activity that enables active bilateral cooperation, especially in the context of the accession of the Former Yugoslav Republic of Macedonia to the European Union and NATO.

Key words: critical infrastructure protection; resilience; disaster risk management

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1. Introduction

We live in an era of computers, digitization and, above all, an era of Internet. The world, as we know today, has evolved into global, interconnected network of systems and information that has transformed the needs of governments, businesses, citizens and opened up new markets with unlimited opportunities for promotion and trading. Globalization, in the light of rapid development and dissemination of information technology, very quickly changes the international security environment. Through many successful attempts, modern terrorism has managed to substantially challenge the modern way of life. In some countries this has affected changing political decisions, and in others, it has caused serious debates about the methods and necessity of the measures taken in the direction of the suppression of modern terrorism. The traditional concept is changing and it is no longer a key instrument for resolving security issues. The national critical infrastructure is the backbone of every country. It is associated with national security, economy, industry and economic development. Critical infrastructure is means, systems and networks, whether physical or virtual, that are vital to the state and their disability and destruction will cause a debilitating effect on the security of the state, national economic security, public health and public safety.

As this document presents an analysis of the current situation in the Republic of Bulgaria and the Former Yugoslav Republic of Macedonia related to the critical infrastructure, we will put special emphasis on the modern terrorism and natural disasters as a threat on critical infrastructure, analyzing the existing legal framework we will give suggestion for new policies and strategies for protection of the critical infrastructure. The global environmental changes in recent years and the natural disasters around the world have highlighted the urgency of the need for a serious re-examination of the security of critical infrastructure in both countries.

The article concludes with the list of joint activities both at the central and local level that could be carried out in order to enhance the protection of critical infrastructure in both countries.

2. Legal and strategic framework for the protection of European and national critical infrastructures in Bulgaria

In the recent years there have been significant changes in the development of the legal and strategic framework for the protection of European and national critical infrastructures in Bulgaria. In 2006 a new Disaster Protection Act was adopted to regulate the protection of the population and critical infrastructures against natural and man-made disasters.² At the European level a Directive on the identification and designation of European Critical Infrastructures and an assessment of the need to improve their protection was adopted in 2008³. The Directive gives legal definitions of basic concepts such as "Critical Infrastructure", "European Critical Infrastructures", "Risk Analysis," etc. The Directive establishes the following list of European critical infrastructure sectors in the energy and transport sectors:

SECTOR	SUBSECTOR
I. ENERGY	<ol style="list-style-type: none">1. Electricity2. Oil3. Natural Gas
II. Transport	<ol style="list-style-type: none">1. Road transport2. Railway transport3. Air transport4. Inland waterway transport5. Long-distance ocean freight and short sea shipping

Table 1: List of European critical infrastructure sectors in the energy and transport sectors (according to the EU Directive)

In 2012 in Bulgaria a special Ordinance was adopted on the order, the way and the competent authorities for establishing the critical infrastructures and their sites and the risk assessment for them⁴. The Ordinance deals with national critical

² Disaster Protection Act (State Gazette no.102, 19/12/2006

³ Council Directive 2008/114 / EC on the identification and designation of European Critical Infrastructures and the assessment of the need to improve their protection, Official Journal of the European Union, L345 / 75 of 23.12.2008

infrastructures. A list of 19 sectors of critical infrastructures in the Republic of Bulgaria has been officially adopted, as shown in Table 2:

List of Critical Infrastructure Sectors in the Republic of Bulgaria		
Sector	Subsector	Authority
I. Energy	1. Electricity	MEET
	2. Oil	MEET
	3. Natural Gas	MEET
	4. Heat Energy	MEET
II. Transport	1. Road transport	MRDP
	And road infrastructure	MTITC
	2. Railway transport and railway infrastructure	MTITC
	3. Air transport and airports	MTITC
III. Information and Communication Technologies	4. Water transport and ports (harbors)	MTITC
	1. Electronic communications networks	MTITC
IV. Post and courier services	2. Information and Communication Infrastructure	MTITC
		MTITC
V. Environment	1. Environment	MEW
	2. Water, water supply and sewerage	MEW

⁴ Ordinance (Regulation) on the procedure, the way and the competent authorities for establishing the critical infrastructures and their sites and risk assessment for them, adopted by Decree of the Council of Ministers № 256 of 17.10.2012. SG. No. 81 of 23 October 2012, amend. and dop. SG. issue 19 of February 26, 2013

		MRDP
VI. Agriculture and food	1. Agriculture	MAF
	2. Food	MAF
	3. Forests and hunting grounds	MAF
VII. Health	1. Medical and hospital care	MH
	2. Drugs	MH
VIII. Finance		MF
IX. Economy		MEET
X. Sports facilities		MPES
XI. Education, science and technology		MOMH
XII. Natural Resources		MEET
		MEW
XIII. Tourism		MEET
XIV. Regional Development and Urban Development		MRDP
XV. Defense	1. Defense Industry	MD
	2. Military infrastructure and military formations	MD
XVI. Justice, public order and security		DJ
		MI
		SANS
XVII. Government and social governance		MI

		MLSP
XVIII. Disaster protection		MI
XIX. Cultural Heritage	1. Real Cultural Values	MC
	2. Movable cultural values	MC

Table 2: List of Critical Infrastructure Sectors in the Republic of Bulgaria

List of abbreviations:

MEET – Ministry of Economy, Energy and Tourism
MRDP – Ministry of Regional Development and Policy
MTITC – Ministry of Transport, Information Technology and Communications
MEW – Ministry of Environment and Water
MAF – Ministry of Agriculture and Food
MH – Ministry of Health
MF – Ministry of Finance
MPES – Ministry of Youth and Sports
MOMH – Ministry of Education and Science
MD – Ministry of Defense
DJ – Directorate of Justice
MI – Ministry of Interior
SANS – State Agency for National Security
MLSP – Ministry of Labor and Social Policy
MC – Ministry of Culture

In accordance with the 2012 Ordinance lists of critical infrastructure assets in the different sectors have been drafted by the relevant ministries. Specifically, in the ICT sector a Cyber Security Strategy was adopted by the Council of Ministers in 2016.

The strategic framework for critical infrastructure protection in the Republic of Bulgaria is developed on three hierarchical levels as follows:

- Strategy for disaster risk reduction 2014 – 2020
- National Programme for the protection against disasters 2014 – 2018
- Annual Plans for the implementation of the National Programme for the protection against disasters

As a positive aspect the strategic framework clearly defines the policy objectives, priorities, the classification of disasters and measures for the protection of the population. On the other hand, the strategic framework has certain shortcomings. Overall, the protection of critical infrastructures is not sufficiently elaborated in all the

three strategic documents. As a matter of fact the Strategy and the National Programme are not fully coherent and they have differing life spans. The issue of formalism in strategic planning and coordination is not adequately addressed. The focus on prevention is widely declared but it is not substantiated, especially with regard to the protection of critical infrastructures. The financial assurance of the Plans for protection has not been provided. In addition, the role of local authorities in the protection of critical infrastructures is underestimated. To great extent the strategic documents are dominated by wishful thinking. In this context the strategic framework in the Republic of Bulgaria is still an unfinished business.

The Disaster Protection Act, the European Directive and the Ordinance are the main legal acts regulating the protection of critical infrastructures in the Republic of Bulgaria. These acts can be considered as a satisfactory legal framework which could be further developed in areas such as preventive measures for the protection of critical infrastructures, civil society involvement etc. An important step for enhancing the national policy in this respect would be stepping up cooperation with the neighboring countries and, especially with the Republic of Macedonia in the light of the recently signed Agreement on friendship between the two countries dated 01.08.2017.

3. Critical infrastructure regulation in the Former Yugoslav Republic of Macedonia

Global challenges affected the Former Yugoslav Republic of Macedonia and most of the post-communist countries in unique way. The Former Yugoslav Republic of Macedonia has a fairly safe geographical position in relation to the danger of tsunamis or hurricanes, danger of elementary disasters. Although climate change has been evident over the past few years, it has begun to pose a serious threat to biodiversity and to a considerable extent reflect the number of floods and, of course, the emergence of earthquakes. The occurrence of elementary disasters can seriously threaten critical infrastructure and thus threaten security of the country. The Former Yugoslav Republic of Macedonia has the Crisis Management Center, the principal institution which is responsible for strategic level of decision making and interagency, international coordination and coordination among the local authorities, and it is the

11th country in the world that has adopted a strategy to reduce the risk of disasters, including Law on crisis management⁵, Law on amendment of the Law on crisis management⁶, and Law on amendment of the Law on crisis management⁷. Risks and threats according to the Law on crisis management are national security threats (terrorism, organised crime, corruption, etc.), natural catastrophes (flood, earthquakes, wildfires, etc.), epidemic, episodes, etc., environmental hazards (technical, etc.) It continues to complete the legal framework with Law on Protection and Rescue⁸ with all later changes and amendments. The Law on Protection and Rescue operates with several strategic documents which are the pillars of the protection and rescue system – National Strategy for rescue and protection, National risk assessment, and National plan for rescue and protection.

However, it requires further legislative changes, because most of the countries in the SEE region, including the Former Yugoslav Republic of Macedonia have not even established a list of critical infrastructure sectors. In its efforts to achieve complete compatibility and interoperability with collective safety systems as are NATO, EU and UN, the Former Yugoslav Republic of Macedonia has undertaken concrete measures and activities aimed at building of institutional capacities for resistance and reduction of risk pertaining to disasters and catastrophes. The network of subjects regarding the critical infrastructure protection gravitate over the, Ministry of Interior, Ministry of Foreign Affairs, Ministry of Defense, Ministry of Finance, Ministry of Transport and Communication, Ministry of Health, Ministry of Agriculture, Forestry and Water Management, Ministry of Environment and Planning, Ministry of Economy, Ministry of Local Government, Municipalities, Public and private enterprises and agencies engaged in Crisis Management Directorate for Security of Classified Information, Protection and Rescue Directorate, all coordinated by the Crisis Management Center. Crisis Management Center is an independent state administrative body, having the status of a directorate, which operates in accordance of the Law of Crisis management and is composed of 34 regional crisis management centers with headquarters in certain municipalities and one Center for crisis management of the city of Skopje. For the first time since the establishment of the

⁵ "Official Journal of Republic of Macedonia" No.29/2005

⁶ "Official Journal of the Republic of Macedonia" no. 41/2014

⁷ "Official Journal of the Republic of Macedonia" no. 104/2015

⁸ "Official Journal of Republic of Macedonia" No.36/2004

Former Yugoslav Republic of Macedonia, organized and coordinated measures and activities were undertaken for handling the large-scale fires in the period July – August 2007 from the Crisis Management Centre who initiated a procedure for declaring a crisis situation on the entire territory of RM.

Since there is no clear dedicated list of critical infrastructure, further legal segmentation follows regarding the anticipated roles and service support for successful critical infrastructure protection. Today, the infrastructure gets a crucial role for the functioning of society, providing a fast flow of information and services, keeping pace with the changes imposed by the technological revolution.

Critical infrastructure protection continues to be a significant issue for many countries around the world requiring not just dedicated institution/s but also appropriate strategy that can enable this protection. The Former Yugoslav Republic of Macedonia still needs to extend the national legal policy regarding critical infrastructure protection. Even though there is significant improvement in legal context, in order to protect the critical infrastructure, a comprehensive public debate is needed, to create a legal regulation of the protection of critical infrastructure with a special Law on Protection of critical infrastructure as *lex specialis* or to upgrade the existing legal regulation, in the context of the analyzed EU countries and countries from the environment. The effective regulation should provide an effective risk assessment and an appropriate framework for action.

The enormous technological expansion and the increasing dependence on the latest technological advancements despite the security measures taken during their designing, certain "weak points" will always be found which can be misused. At a time when national security is a daily public topic across Europe and the world, cyber security becomes one of the key threats of a country's defense system. The Former Yugoslav Republic of Macedonia, like the other European countries, is not immune to the more frequent and big threats that lurk cyber space, and accordingly, state institutions are obliged to prepare an appropriate strategy for dealing with this type of threats.

With the ever-increasing number of cyber-attacks on critical infrastructure, security experts have determined that their job is to be in constant struggle with invaders. Providing cyber space against cyber-attacks has become a challenge for

countries around the world. Finding legal solutions and regulations to deal with cyber-threats, anticipating and preventing attacks on cyberspace, co-operating with the private sector and security experts, finding an appropriate response to attacks, and quickly restoring attackers to systems and networks are priority tasks for national governments. Preserving and promoting the security of state systems has made cyber security the number one priority in states' states around the world at this time.

Governmental authorities directly involved in Macedonian critical infrastructure protection (CIP) include Ministry of interior, Ministry of defense, Ministry of transport and communication, Crisis management center, Directorate for protection of classified information, and Protection and rescue directorate. There is no legal document in the Former Yugoslav Republic of Macedonia that contains summarized list of critical infrastructures. Moreover, Macedonian legislation for CIP does not centralize responsibility only in one governmental authority. The legislation consists of provisions that, first, locate responsibility and the leading role of specific agency and, second, imply responsibility regarding the bilateral agreements and corporate security.

4. Conclusion

In terms of enhancing bilateral cooperation between the Republic of Bulgaria and the Former Yugoslav Republic of Macedonia it is recommendable that cooperation would be developed both at the central and the local level. On the one hand, in the process of accession of the Former Yugoslav Republic of Macedonia in the EU it is expected that EU legislation and, specifically, the relevant EU Directive would be adopted. Harmonizing the legislation in both countries would be conducive to closer cooperation between the competent authorities. Secondly, a positive step at the local level would be harmonizing the Disaster Response Plans of the bordering municipalities with a view to enhancing critical infrastructure protection in both countries.

For example, the following activities could be carried out:

- Creating opportunities for organizing protection and early warning of disasters and accidents in the cross-border region;

- Actions to establish cooperation networks for the legal and safe passage of people and services;
- Activation of civic participation in public structures for security and order in cross-border areas;
- Improving the coordination of work and holding regular meetings between the Bulgarian and Macedonian authorities in the cross-border regions;
- Joint participation in international grant programs for cross-border cooperation between the respective municipalities in the fields of critical infrastructure protection and disaster risk management.