

COMPARATIVE ANALYSIS OF DISASTER RISK MANAGEMENT POLICIES IN THE REGION OF SOUTH-EAST EUROPE

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ABSTRACT

Using measures for sustainable development and reducing the risk of disasters in order to protect the population, goods and the environment is the duty of every state in the fight against security challenges that disasters bring. Disaster risk reduction is a multidisciplinary policy designed to implement various measures to strengthen community resilience and preparedness for disasters. The region of Southeast Europe is recognized as extremely endangered by natural disasters. The countries of the region, especially their national risk management policies, continue to be based in part on solutions from earlier times. The subject of the research is focused on the analysis of disaster risk management policies in the countries of Southeast Europe, their comparison and review of similarities and differences. The countries of this region base their policies on similar solutions aimed at reducing the risk of disasters. There are shortcomings in the full implementation of the adopted international frameworks in the national risk management policies and normative-legal frameworks in certain countries of this region.

Keywords: politics, risks, emergencies, disasters, Southeast Europe.

1. INTRODUCTION

People are constantly under the influence of dangers of natural and technological origin, therefore it is important for people to understand them. The consequences of disasters that grew over time, formed visions of disasters that existed in the early period of social development, as well as religious beliefs and rituals which at that time represented some of the ways to deal with catastrophes and risks from catastrophic events (Cvetković, 2017: 13). With the development of technology, there is an opinion that might be important in solving problems caused by disasters, and in this regard, the construction of embankments, dams and the use of better materials in construction is one of the methods in dealing with floods (Cvetković, 2017: 14). Using measures for sustainable development and reducing the risk of catastrophic events to protect the population, goods and the environment is the duty of every country when combating the security challenges posed by disasters, so risk reduction is an important element of risk management policies and other activities, related to the provision of assistance and reconstruction to countries that are exposed to disaster risks (Cvetković, Filipović and Gačić, 2019: 13).

Working to develop a political, legal and institutional framework for disaster risk reduction increases the ability of states to manage risks: in this regard the publication of the Yokohama Strategy Declaration indicates the responsibility of states to provide protection to their citizens from natural disasters, actively working to develop and strengthen state capacities, as well as legislation in order to combat the harmful effects of natural and other hazards, promote regional and international cooperation to prevent, reduce and mitigate natural and other disasters with emphasis on human and institutional capacities, technology exchange, information collection and dissemination and work on resource mobilization (Cvetković, Filipović and Gačić, 2019: 11). Building on disaster risk reduction, risk management is a set of different measures and activities that are undertaken precisely with the aim of implementing conceived and designed policies into daily operation. Guided by this, it is very important to mention that in the region of Southeast Europe, different measures are applied for the implementation of disaster risk reduction policies and that they are conditioned by different demographic and socio-cultural perspectives. Precisely because of that, the initial research question refers to the examination of whether there are differences in the policies themselves and the ways of their implementation, and what are the most common advantages and disadvantages of their functioning in real life.

Despite international efforts to reduce disaster risk, international frameworks are not fully implemented at a national level. Each country implements international frameworks into its national risk management policy in its own way. Also, each country in its own way creates and regulates a policy of disaster risk management, although it is endangered in the same way as its neighboring countries, and by the same disasters. Therefore, it is necessary to look at and compare national disaster risk management policies in our region, in order to see the similarities and differences. This research is an initial step that precedes future and more detailed research, which will serve as a comparison, as it will create an initial basis that will serve for later systematization of knowledge about the comparison of risk management policies in the Balkan Peninsula and Southeast Europe.

2. METHODOLOGICAL FRAMEWORK

The paper begins with the research question of whether there are differences in the quality of disaster risk management policies in the region of Southeast Europe. The problems and comparison of risk management policies in neighboring countries have not been addressed to a significant extent in domestic scientific sources. Their comparison and explanation of similarities and differences is a necessity, both from a scientific and practical point of view, in order to bring the prevention, response and recovery of the countries of the region from more frequent disasters to the best possible level, given that no country's disaster risk management policy on the Balkan Peninsula does contain the best solutions for all aspects of disasters. The mutual cooperation between the countries of the region and pointing out the shortcomings in disaster risk management policies is a kind of good neighborly policy, given that the area of disaster spread often has a cross-border character, and that the region of Southeast Europe is defined as extremely endangered. The best recent example was the 2014 floods caused by unprecedented precipitation, which spread to areas in the Republic of Croatia, Bosnia and Herzegovina, but also to our country, which suffered the most severe consequences. This phenomenon required a very quick response from both our country and the neighboring countries, given the speed of the floods and their devastating consequences. This indicates the importance of proper, meaningful and precise formation of national disaster risk management policies.

Although significant efforts have been made internationally to create an international policy framework for disaster risk management, disasters are more frequent, with more intense and devastating consequences. Although nature cannot be influenced to a greater extent, we can influence the regulation of national disaster risk management policies. The increase in the scope of the consequences of catastrophes was partly due to non-compliance with international frameworks, whose main goal is that. International policies have not been fully implemented in national policies, and recommendations and obligations have not been regulated. Regulating this area in the right, optimal way, as well as the possibility of adapting it to new situations, given the tendency for increased frequency and intensity of disasters, is a need of every country around the world. Southeast Europe, as a region highly vulnerable to various natural disasters, such as floods, forest fires, droughts, earthquakes, heat waves, and even hurricanes, as seen in the example of Greece, calls for the best possible solutions containing different legal normative frameworks that regulate the policy of disaster risk management of each country separately.

The subject of the research refers to the analysis of disaster risk management policies in the region of Southeast Europe and the Balkan Peninsula, more precisely related to the Republic of Croatia, Bosnia and Herzegovina, Montenegro, North Macedonia, Bulgaria and Greece, as well as their comparison, but also to pointing out their similarities and difference. The spatial determination of the subject of research refers to the countries of the Southeast Europe region, more precisely the Balkan Peninsula countries – the Republic of Croatia, Bulgaria and Greece as members of the European Union, but also the Republic of Bosnia and Herzegovina, Montenegro, Serbia and North Macedonia. Given the previously identified subject of research, the aim of the research is to scientifically describe the existing similarities and differences in national disaster risk management policies in the countries of the Southeast Europe region. The research is aimed at examining the manner and nature of differentiation of the mentioned national disaster risk management policies. The practical goal of the research is a more meaningful understanding of the differences and similarities in disaster risk management policies in the region of Southeast Europe, based on theoretical knowledge and empirical results.

3. DISASTER RISK MANAGEMENT POLICIES

3.1 Montenegro

When it comes to the risk of natural disasters, Montenegro is at risk of floods, droughts, heavy rainfall, snowfall, stormy winds, heat waves, landslides, avalanches and forest fires. The causes of floods are heavy rains which, in addition to floods, cause landslides due to excessive moisture in the soil, while some of the reasons for the appearance of erosion processes are general exposure of the terrain, vertical disintegration of vegetation and unsustainable soils, as a consequence of the inadequate use of natural resources. Anthropogenic activities in certain river flows, which refer to the exploitation of gravel and sand, are a secondary factor that contributes to floods (FAO, 2018:7).

Regarding the legal framework that regulates the field of disaster risk reduction, several normative acts should be pointed out, in that sense the field of protection and rescue is regulated by the Law on Protection and Rescue (“Official Gazette of Montenegro”, no. 13/07, 32/11 and 54/16) consisting of a series of measures to be taken to detect and prevent the occurrence of hazards, mitigate and eliminate the consequences of natural disasters, technological accidents, radiation, chemical or biological pollution, the consequences of war and terrorist activities, epidemics and other accidents which pose risks to the population, material goods and the environment. It defines

how protection and rescue is managed and coordinated, and in that sense the consistent application of this Law is regulated by: Rulebook on the Content and Methodology on the Basis of Which Protection and Rescue Plans are Made (“Official Gazette of Montenegro”, No. 31/17); Rulebook on Detailed Content and Methodology of Preparation, Manner of Harmonization, Updating and Storage of Protection and Rescue Plans (“Official Gazette of Montenegro”, No. 34/17); Rulebook on the Manner of Organizing and Engaging Civil Protection Units (“Official Gazette of Montenegro”, No. 38/17); Rulebook on Unique Alarm Signs and Manner of Notification and Alarm (“Official Gazette of Montenegro”, No. 34/17), Decision on Appointment of Managers, Deputy Managers and Members of the Coordination Team for Protection and Rescue (“Official Gazette of Montenegro”, No. 52/17), Decision on the Appointment of the Operational Headquarters for Protection and Rescue (“Official Gazette of Montenegro”, No. 52/17), as bylaws, while other important issues in this area are regulated by the Law on Explosive Substances (“Official Gazette of Montenegro”, no. 49/08, 31/14 and 31/17) which prescribes the necessary conditions for the production, trade, procurement, storage and use of explosives for the protection of life, health and safety of humans, flora and fauna, environment and property and other issues of importance for performing these activities; then the Law on Transport of Dangerous Goods (“Official Gazette of Montenegro”, No. 33/14) which regulates the transport of dangerous goods using road, rail, sea and air transport, but this area is also regulated through ratified international agreements; further, there is the Law on Flammable Liquids and Gases (“Official Gazette of Montenegro”, no. 26/10, 48/15) which regulates the protection of life, health and safety of people, flora and fauna, environment and property, construction and reconstruction of facilities, storage, holding, trade, handling and use of flammable liquids and gases. It should be noted that the Ministry of Internal Affairs of Montenegro is responsible for these three laws (Strategy for the GDR, 2017: 12).

The Law on Protection and Rescue establishes a general legal framework governing the handling of natural disasters, technological and other accidents. In addition to this there are other laws that indirectly regulate issues that are important for protection and rescue, these issues being regulated by: “Gazette of the Republic of Montenegro”, No. 27/07 and “Official Gazette of Montenegro”, No. 32/11, 48/15 and 52/16); the Law Governing Hydrometeorological Affairs (“Official Gazette of Montenegro”, No. 26/10 and 30/12); the Law on Protection and Health at Work (“Official Gazette of Montenegro”, No. 34/14); the Law on the Red Cross of Montenegro (“Official Gazette of the Republic of Montenegro”, No. 28/06); the Law on Forests (“Official Gazette of Montenegro”, No. 74/10, 40/11 and 47/15); the Law on Environment (“Official Gazette of Montenegro”, No. 52/16); the Law Regulating Protection against Ionizing Radiation and Radiation Safety (“Official Gazette of Montenegro”, No. 56/09, 58/09, 40/11 and 55/16); the Law on Foreign Trade in Arms and Military Equipment (“Official Gazette of Montenegro”, No. 40/16); the Law on Spatial Planning and Construction of Facilities (“Official Gazette of Montenegro”, No. 64/17), etc. (Strategy for the GDR, 2017: 13-14).

3.2 Bosnia and Herzegovina

Data on hazards on the territory of BiH have been available through EM-DAT since 1989, and the analysis of these data determines the risks in this climate. In that sense, BiH is facing both natural and technological hazards. The EM-DAT data for the period 1989-2006 indicate that the most common disasters are related to floods and droughts, but this area is exposed to other natural hazards such as earthquakes, storms, stormy winds accompanied by thunder, snowstorms, floods, landslides, frosts and forest fires. The available EM-DAT data show the percentage of hazards, so

landslides are represented by 8% in relation to other hazards threatening BiH, floods with 31%, droughts account for 15%, forest fires 8%, transport accidents 15%, epidemics 8%. In terms of frequency, it is noticeable that floods are the most frequent events and that the victims of these events are the most numerous compared to others, i.e. that floods affected most of the population of this country compared to other hazards and that the damage was caused by droughts, economic losses, etc. Having in mind these data, it is recognized that BiH is most vulnerable to floods and droughts compared to all other hazards, according to the appropriate analysis of data. However, there is a declining trend of incidents, as well as of the number of deaths at state level, which can be attributed to a decrease in the number of events or to capacity building, measures and activities in the field of disaster preparation and mitigation, compared to the period 1999-2003, which indicates an increase in vulnerability. In terms of economic losses, there are data for the period 1999-2003, as well as for the period 2004-2006 which are related to the great droughts of 2000 and 2003 indicating a total amount of 408 million US dollars, while the report of the National Center for Geophysics of the United States (NGDC) mentions that the losses due to the earthquake are measured in the amount of 5 million US dollars for the past 33 years. At an annual level, economic losses account for only 1% of gross domestic product, while the data on the number of victims are available only for droughts and show that 2% of the population at state level suffered and was affected by droughts, i.e. which in numbers amounts to 71,397 people (Banja, 2007: 15).

The legislation in BiH within which it is possible to institutionally define and implement landslide risk management concerns normative acts that regulate areas related to planning and construction of facilities, geological research, nature protection, water management, forestry and agriculture, organization and activities of civil society, protection, the field of local self-government, then the field of emergency procedures, documents related to action plans and strategies, laws and bylaws, procedures, competencies and implementation. At the level of the Federation of Bosnia and Herzegovina, Republika Srpska and Brcko District, these issues are resolved by the Law Dealing with Geological Research in the Federation of BiH (“Official Gazette of FBiH”, No. 9/10 and 14/10); land use is regulated by the Law on Spatial Planning and Land Use at the Level of the Federation of Bosnia and Herzegovina (“Official Gazette of FBiH”, No. 2/06, 72/07, 32/08, 4/10, 13/10 and 45/1; the Law on Waters (“Official Gazette of FBiH”, No. 70/06), the Law on Forests (“Official Gazette of FBiH”, No. 20/02, 29/03 and 37/04), the Law on Mining of the Federation of BiH (“Official Gazette FBiH”, No. 26/10), the Rulebook on Geotechnical Research and Testing and the Organization and Content of Geotechnical Engineering Missions (“Official Gazette of FBiH”, No. 2/06, 72/07 and 32/08), the Law on Geological Research of Republika Srpska (“Official Gazette of RS”, No. 110/13), also the Law Dealing with Spatial Planning and Construction (“Official Gazette of RS”, No. 55/10); the Law on Waters (“Official Gazette of RS”, No. 50/06 and 92/09), then the Law Governing Nature Protection (“Official Gazette of RS”, No. 50/02), the Law on Forests (“Official Gazette of RS”, No. 75/08) (Abolmasov, 2016:28).

3.3 Croatia

About 80% of damages and economic losses in Croatia due to natural disasters in the period 1980-2014 are a consequence of natural disasters, mainly those of atmospheric origin, according to the State Commission for the Assessment of Damage from Natural Disasters. Of all the reported damage, the most frequent was due to droughts, followed by strong floods and frosts, therefore weather data, climate and water status, as well as their extremes must be part of national strategies for managing and reducing possible risks of catastrophic events (Güttler, Horvat and

Tadić, 2016:190). Natural and technological disasters are a significant social and economic burden for Croatia, which is why identifying and analyzing hazards, risks and outcomes with a view to the possible consequences of climate change are essential elements of the European Union's disaster prevention framework and prevention policy at all levels of government. In this regard, a "Disaster Risk Assessment for the Republic of Croatia" was prepared in 2015 in cooperation with the State Administration for Protection and Rescue and with the participation of state and public services, with the State Hydrometeorological Institute being a partner in preparing data on several important risks. In relation to this, risk assessment is the basis for work on disaster risk reduction in Croatia, but also important are the steps related to the assessment of risk management capacity and the development of a Disaster Risk Reduction Strategy, after which specific action plans will be adopted. Natural hazards can be significantly reduced by better scientific understanding of possible natural hazards in certain areas, i.e. by threat assessment to build a culture of security and resilience at all levels; by better application of various construction and urban norms in accordance with risk assessment and adaptation to expected climate change; by raising the level of community awareness and by educating about the possible impacts of natural hazards and measures that an individual can take to reduce harm and protect lives; by introducing the latest technological and scientific methods for monitoring and forecasting hazardous natural phenomena and strengthening early warning systems with an integrated approach to risk management (Güttler, Horvat and Tadić, 2016: 190).

The legal framework for disasters is more focused on crisis management than on preparedness and mitigation. Given that service activities in Croatia account for 63% of GDP, hazards of technological origin can have a direct impact on the economic conditions in the country. Also, planned land use is necessary in order to reduce the impact of floods on this resource, as well as on the population, Croatia, together with the countries from the region, is a member of the flood management project on the Sava River (Banja, 2007: 26).

3.4 Bulgaria

In terms of disaster management, Bulgaria is guided by the set goal of moving from a response-oriented management system to a comprehensive system that integrates all other phases of disaster management. An expert audit in this regard indicates that Bulgaria can move to a system of equal importance of prevention, preparedness and recovery activities, with the existing available resources for responding during emergencies, by supplementing the already developed Strategy for Disaster Risk Reduction (Partner verification Bulgaria, 2015:14). The existing system of population protection in Bulgaria has a good foundation, and in this regard the Law on Disaster Protection defines the roles of different parts of the Unified Rescue System, but it is possible to upgrade it by switching from a system focused on responding to a comprehensive risk management system, which can be done through working groups, trainings and exercises, as well as through bilateral agreements with neighboring countries, with the training being carried out within the regional service of fire safety and protection of the population (RDPBZN-Montana). Bulgaria has also included its Red Cross in activities related to preparedness and response, i.e. to the disaster management system, and this cooperation could serve as an example for the NGO sector and for companies (Partner verification Bulgaria, 2015: 14). The establishment of this management system implies the implementation of a comprehensive approach with risk assessment and the creation of risk management plans; then it is necessary to implement appropriate legal changes in accordance with the chosen approach to disaster risk management, and create cross-sectoral working groups that would be in charge of implementing activities in that direction; it is necessary to improve the

cooperation of all stakeholders and capacities at the local, state and regional level through the creation of local and regional platforms for disaster risk reduction that would complement the national platform; it is necessary to provide funding for risk management activities in order to control whether the objectives of the national platform for disaster risk reduction are met, and this process would be coordinated by the Ministry of Interior; the dialogue and exchange of risk information between stakeholders and NGOs needs to be strengthened; the needs of the local authorities when planning risk management should also be taken into account and provided with resources; further, assessment and monitoring programs should be developed and implemented throughout the disaster management process; the system should be flexible enough and based on local needs but also in line with global trends (Partner verification Bulgaria, 2015: 15). The Law on Disaster Protection (SDA) (SG No. 102/19.12.2006) in Bulgaria regulates the protection of the population and the management of disasters and it forms the legal basis governing this area. Its provisions were later amended in order to improve the system and to link it to some other laws, such as laws regulating environmental, spatial planning and critical infrastructure issues (Partner verification Bulgaria, 2015:16).

3.5 North Macedonia

The basis and ceiling of the normative-legal framework which regulates the risk management policy in the Republic of North Macedonia is the Constitution, and further the matter is regulated by the Law on Protection and Rescue, the National Strategy for Protection and Rescue, the National Plan for Protection and Rescue from Natural Disasters and Other Accidents, the the Law on Defense and the Law on Firefighting (Saliu et al., 2011). Saliu et al. (2011) state that the Law on Protection and Rescue serves to regulate the protection and rescue system in the Republic of North Macedonia, as well as to preserve ecosystems, cultural and natural assets. One of its articles talks about the purpose of the Law, which aims to create a synchronized system for detecting, possibly preventing and mitigating natural disasters. The bodies of state administration and local self-government, public companies, as well as the citizens themselves are responsible for its implementation. The need to observe potential danger is emphasized, as well as its detection, and then monitoring and study. Also, Saliu et al. (2011) talk about several principles on which the protection and rescue system is based, and some of them are that everyone has an equal right to protection and rescue, when choosing between rescuing people and property, people have priority, that it is the duty of every citizen to help in accordance with their abilities, but also that it is the duty of the state, its bodies and cities to work on preventive and operational protection measures in time. It also prescribes multi-level response, where the local self-government has priority, followed by the state and the international community. The plan at the level of the entire country has been prepared according to the Methodology for the Content and Manner of Hazard Assessment and Protection and Rescue Planning and the Regulation on Handling and Use in the Field of Protection and Rescue. The National Plan contains prevention measures, as well as operational measures in which all state bodies are actively involved, together with public companies and local self-government. Every catastrophe can easily turn into an international one, so considering that, there is a need to prescribe quick and simple solutions that give effect. The National Plan is capable of adapting to new situations, all with the aim of responding to the disaster as efficiently and quickly as possible. The plan, as its integral parts, contains the role of the state bodies, a list of critical infrastructure and measures of prevention, response and remediation of the consequences of disasters. The role of the private sector is also important, with which the state

develops a partnership, because during the catastrophe, the unity of citizens and the state is important (Saliu et al., 2011).

3.6. Greece

Greece is an area where earthquakes are common, causing severe consequences. In addition to being sudden, they are characterized by side effects, so a better management is needed in the mitigation phase as well, and not only during response and recovery. In that sense the Earthquake Planning and Protection Organization (EPPO) is a state body that regulates policy and action in relation to earthquakes and this mitigation policy can be defined through the most important activities which include: application of special rules in infrastructure design introducing resilience; earthquake risk and danger assessment, as well as presentation of earthquake zones at state level; the use of accelerometer systems, but also the production of maps that provide an overview of the areas in which the movements studied by neotectonics are recorded; planning preparatory measures, i.e. earthquake preparedness measures; cooperation with all relevant actors in cases of devastating earthquakes by providing technical and professional assistance; providing support to applied earthquake research through funding of scientific projects on topics relevant to earthquake risk and participation in these projects (Gountromichou, Manousaki, Doga and Lekkas, 2014:1).

The EPPO lists as the most important policy preparedness activities related to earthquake risk management planning and education policy, in order to strengthen the resilience of communities, people and institutions, and strengthen the capacity for effective recovery after a catastrophic event by improving risk assessments, and through raising the level of culture and awareness based on a bottom-up approach with decentralized approach and public participation. Earthquake education policy has been very well developed in Greece in the past few decades, with a lot of information and educational material printed for that purpose. Many initiatives related to earthquake risk management planning have been implemented in the past and most related to guidelines, appropriate forms and data sets that helped authorities in making earthquake plans (Gountromichou, Manousaki, Doga and Lekkas, 2014: 2).

4. CONCLUSION

Disaster risk management policy, nowadays, is a very important factor for national and international policies. Observing the increase in the frequency, intensity and devastation of disasters, the cause of which is most often associated with increasingly pronounced climate change, disaster risk management policy will become a key factor in the future. Disasters and their consequences, both on the population and infrastructure, the economic flows, food production, require a studious and comprehensive approach. Properly and precisely regulated policy of disaster risk management should be the goal of every country in the world, regardless of whether they are economically developed or developing countries.

Disasters, especially natural ones, know no borders, so it is important to point out that the regulation of risk management policy in the right way, must primarily come from international level. Just as it is important to prescribe and adopt international frameworks for disaster risk reduction, their implementation and application within risk management policies at the national level is equally important, if not greater. The analysis of professional literature and normative-legal regulations has noticed the lack of full application of ratified and adopted international

frameworks in national disaster risk management policies. Each state applies international frameworks and agreements to the extent appropriate to national interests and capabilities. The region of Southeast Europe and the Balkan Peninsula is recognized as extremely endangered by natural disasters. The countries of the region, especially the members of the former SFRY, continue to base their national risk management policies in part on the solutions prescribed during the socialist era. The consequences of wars and political turmoil have left their mark on insufficient communication and the necessity for developing relations for bilateral and multilateral cooperation within the region. The catastrophic floods of 2014 underlined the need for cooperation in the field of prevention, response and rehabilitation of the consequences of disasters.

The analysis of normative-legal sources came to the conclusion that national disaster risk management policies are indeed based on approximately similar principles and postulates. The part of risk management policy related to disaster mitigation is indeed regulated in a similar way in the countries of Southeast Europe. It was also confirmed that the issue of preparedness for the coming disasters is regulated in a similar way in the countries of the region. Finally, the assertion that a part of national disaster response policies is based on similar solutions has been ascertained. The analysis of the normative-legal framework of the countries of the Southeast Europe region, established the same similarity in all national governance policies, and that there is a tendency for all countries to focus on disaster prevention, rather than disaster response and recovery, as has been the case so far. States seem to have realized that it is economically much more profitable to invest in prevention measures than to pay damages after a disaster. This aspiration is in line with international frameworks governing disaster risk management policies, such as the Hyogo and Sendai frameworks. All countries in the region understand the importance of creating a database of potential dangers and disasters, accompanied by risk maps, as well as preparations for their possible occurrence.

With the National Strategy for Emergency Situations, Montenegro has stepped in the direction of improving the disaster risk reduction system, led by guidelines in the direction of integrating these goals into national policy and affirming these goals through bilateral, regional and wider international cooperation. When it comes to BiH, the Ministry of Security, through the Protection and Rescue Sector, treats the issue of including disaster risk management in national policies as very important. The Croatian legal framework is more focused on crisis management than preparation and mitigation, and appropriate risk, threat and vulnerability assessments are also needed. In terms of risk management, Bulgaria is guided by well-laid foundations in the form of the Law on Disaster Protection, but is also guided by principles and guidelines that point to a different orientation and direction from a system that responds to a system of comprehensive approach and equal evaluation of prevention, preparedness and recovery activities. Bulgaria also has a National Disaster Protection Program and a National Disaster Risk Reduction Strategy. North Macedonia has a Law on Protection and Rescue, a National Strategy for Protection and Rescue, as well as a National Plan for Protection and Rescue from Natural Disasters, and further activities regarding the functioning of the regulatory framework governing disaster risk management are based on the need for missing laws and regulations, which would complete the legal framework for protection and rescue. When it comes to Greece, the National Platform for Disaster Risk Reduction has established a network of government agencies and other relevant agencies.

5. REFERENCES

- 2015-2016 г. Програма за партньорски проверки в рамките на сътрудничеството в областта на гражданската защита и управлението на риска от бедствия на ЕС. (2015). European Commission (ECHO).
- Aven, Terje. (2015). Risk assessment and risk management: Review of recent advances on their foundation. *European Journal of Operational Research*. 10.1016/j.ejor.2015.12.023.
- Banja, Manjola. (2007). South Eastern Europe Disaster Risk Management Initiative (SEEDRMI) – Final report.
- Berg, H. P. (2010). Risk management: procedures, methods and experiences. *Reliability: Theory & Applications*, 5(2 (17)).
- Christos, C., Marinos, P.D., Kaliopi, S. (2015). Natural hazards and climate change risks in Athens.
- Comprehensive analysis of Disaster Risk Reduction and Management System for agriculture in Bosnia and Herzegovina. (2020). Sarajevo. Food and Agriculture Organization of the United Nations (FAO).
- Цветковић, В., Филиповић, М., & Гачић, Ј. (2019). Збирка прописа из области управљања ризицима у ванредним ситуацијама: Научно-стручно друштво за управљање ризицима у области ванредних ситуација. *Београд: Научно-стручно друштво за управљање ризицима у области ванредних ситуација*.
- Cvetković, V. (2017). Metodologija istraživanja katastrofa i rizika: teorije, koncepti i metode. Beograd: Zadužbina Andrejević.
- Cvetković, Vladimir. (2020). Upravljanje rizicima u vanrednim situacijama. Beograd: Naučno-stručno društvo za upravljanje rizicima u vanrednim situacijama.
- Dionne, G. (2013). Risk management: History, definition, and critique. *Risk Management and Insurance Review*, 16(2), 147-166.
- DONKOV, Dimitar. "B2–Natech disaster risk management on the territory of Bulgaria." *Analysis of Natech (Natural Hazard Triggering Technological Disasters) Disaster Management* (2004): 42.
- Jurjević, P., Vuletić, D., Gračan, J., & Seletković, G. (2009). Šumski požari u Republici Hrvatskoj (1992-2007). *Šumarski list*, 133(1-2), 63-72.
- Katančević, V. T., & Karović, S. [2016]. Threat identification, and risk assessment and monitoring as a form of early warning. *Vojno delo*, 68(2), 84-107.
- Kerkez, M., & Ivanović, I. [2016]. Catastrophic risks and insurance. *Megatrend revija*, 13(2), 17-36.
- Milosavljević, B. [2015]. International cooperation in the field of disaster risk reduction. *Pravni zapisi*, 6(1), 52-84.
- National Platforms for Disaster Risk Reduction. (2020). Belgium: UN Office for Disaster Risk Reduction (UNDRR)
- Strategija za smanjenje rizika od katastrofa sa dinamičkim planom aktivnosti za sprovođenje strategije za period 2018-2023 godina (Strategija za DDR). (2017). Podgorica: Vlada Crne Gore. Ministarstvo unutrašnjih poslova.
- Аболмасов, Б. (2016). *Студија управљања ризицом од клизишта у Босни и Херцеговини*. Развојни програм Уједињених нација, Босна и Херцеговина (UNDP).

- Анализа система за смањење ризика од катастрофа и управљање ризицима од катастрофа за сектор пољопривреде у Црној Гори. (2018). Подгорица. Организација за храну и пољопривреду Уједињених нација (FAO).
- Закон о смањењу ризика од катастрофа и управљању ванредним ситуацијама, „Сл. гласник РС“, бр. 87/2018.
- Лаловић, В., (2014, децембар). Сарадња државних органа и медија у кризним ситуацијама. Прва конференција националне платформе за смањење ризика од катастрофа Црне Горе. Подгорица, децембар 2014, pp.43-45.
- Процјена ризика од катастрофа за Републику Хрватску. (2019). Загреб: Влада Републике Хрватске.
- Салиу, Ш., Главинов, А., Тимовска, М., Наумовска, Г. (2011). Заштитата и спасувањето во Република Македонија.
- Тмушић, Љ., Марковић, З. (2014, децембар). Анализа организације система заштите и спашавања у Црној Гори са препорукама за унапређење. Рад изложен на: Прва конференција националне платформе за смањење ризика од катастрофа Црне Горе. Подгорица, децембар 2014, pp.7-15.