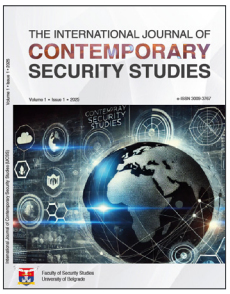
Volume 1 • Issue 1 • 2025 https://doi.org/10.18485/fb_ijcss.2025.1.1.13

Faculty of Security Studies, University of Belgrade

International Journal of Contemporary Security Studies (IJCSS)



Review Article

Theoretical, Institutional and Organizational Aspects of the Integrated Disaster Risk Reduction System: Towards a Deeper Understanding of Disaster Resilience in Serbia

Dalibor Milenković[1]*

1 Scientific-Professional Society for Disaster Risk Management, Dimitrija Tucovića 121, 11040 Belgrade, Serbia, milenkovic.dalibor82@gmail.com.

*Correspondence: milenkovic.dalibor82@gmail.com

Received: 5 March 2025; Revised: 17 May 2025; Accepted: 4 June 2025; Published: 30 June 2025

ABSTRACT

This paper examines the concept of community disaster resilience through a multidisciplinary lens, emphasising the integration of theoretical, institutional, and organisational dimensions within the context of the Republic of Serbia. It explores the development of disaster management under the framework of the contemporary Integrated Disaster Risk Reduction System, which is grounded in the core principles of community resilience and supported by advanced methodologies tailored for this purpose. Particular attention is given to methodological tools for assessing resilience, including the Baseline Resilience Indicators for Communities (BRIC) and the Predictive Model of Community Disaster Resilience based on Social Identity Influences (MODERSI), the latter of which was developed explicitly for the Serbian context. The analysis suggests that social cohesion, institutional trust, and local capacities are critical determinants of resilience, whereas institutional shortcomings and systemic fragmentation constrain overall effectiveness. Although Serbia has a normative framework in place to enhance resilience through an integrated system, the operational mechanisms for implementation—especially at the local level—remain underdeveloped. The paper offers several recommendations: strengthening the institutional capacities of local governments, fostering citizen participation in planning processes, integrating traditional values with scientific approaches, and promoting a culture of prevention through education. The study concludes that resilience is a dynamic process requiring a balance among technical, social, and political factors. In the case of Serbia, long-term strategic investment in both community and institutional capacities is essential.

KEYWORDS

Disaster resilience, integrated disaster management, BRIC methodology, MODERSI model, local communities

1. Introduction

The resilience of a given community is conceptually directed towards counteracting the impacts of hazards and reducing the likelihood of disaster occurrence. The first definition of resilience was used to articulate the ability of systems to absorb changes and disturbances while maintaining the same relationships among the population and various states of variables (Holling, 1973, p. 14). The Sendai Framework for the period 2015-2030 established an ambitious goal for disaster risk reduction, aiming to decrease communities' vulnerability to risks

and hazards while enhancing preparedness and strengthening resilience (Sendai Framework for Disaster Risk Reduction 2015-2030, 2015). One of the key characteristics of the resilience concept is its multidimensionality, which contributes to the abstract nature of this term in the context of responding to catastrophic events. Resilience implies the capacity of a society to successfully adapt to the conditions imposed by a disaster, as well as to mitigate its negative consequences (Alexander, 2013). Following the definition provided by the United Nations through its international strategy for disaster risk reduction, "resilience is the ability of a system, community, or society exposed to risk to withstand, absorb, and respond swiftly and effectively to the consequences of hazards while maintaining and recovering its key functions and structures" (UN ISDR, 2009, p. 24). Considering that according to UN data, 55% of the global population currently resides in urban areas (74% in Europe), and by 2050, 68% of the global population will live in such areas (Department of Economic and Social Affairs, 2018), multidisciplinary consideration of community resilience gains particular significance. It is crucial to specifically consider relevant data indicating climate change driven by global temperature rise, as this process directly affects the frequency and intensity of extreme weather and natural events. These changes lead to an increasing number of catastrophic events, significantly amplifying the need for forecasting, planning, and strengthening resilience systems under conditions of climate instability. Exceeding a temperature rise of two degrees would lead to irreversible processes with severe consequences for human life, as seen in the outcomes of disasters (Masson-Delmotte et al., 2018, pp. 1-17). This concept has become a central theme in global scientific and political discourse, particularly today in countries prone to natural disasters, such as Serbia.

Conventional disaster management models generally focus on damage prevention measures, effective response, and recovery processes post-event, with less attention given to mitigating consequences and systematically strengthening resilience capacities. As a result of this approach, numerous studies in the field of disaster resilience have primarily focused on assessing the outcomes achieved, emphasising the speed and effectiveness of recovery, as well as the reduction of incurred damages (Cimellaro, Reinhorn, & Bruneau, 2010). However, in contrast to this technical approach, an increasing body of literature is shifting its focus towards the human side of disaster resilience, emphasising "individual and collective capacities that are essential for coping and adapting in times of crisis" (Manyena, 2006, p. 438). Several studies support the idea that resilience first manifests at the local level during periods of adversity, particularly when confronted with immediate hazards and physical injury (Grozdanić & Cvetković, 2024; Cvetković & Ivković, 2022). It is the affected people, their functioning, connectedness, and capacities — both individually and as a group — that determine the level of resilience of local communities (Aldrich, 2012).

Although the concept of resilience is considered a new foundation for disaster management, it has remained flexible without a concrete set of indicators. For each case or community, a clear definition of the entity (individuals, city, municipality, etc.) must exist, outlining what it should be resilient to, the intensity it can endure, and the degree or speed of recovery following a disaster (Milenković, Cvetković, & Renner, 2024).

In light of the growing challenges posed by climate change to Serbia, adapting resilience assessment methods becomes essential for enhancing the preparedness of local communities. Among contemporary methods for measuring the resilience of a specific community to disasters, an increasing number of approaches are being developed that can easily identify deficiencies preventing resilience from reaching optimal or desired levels. "A large number of contemporary methods have been developed in such a way that they can be difficult to apply across a broad spectrum of countries with diverse characteristics. These characteristics include geographical, social, economic, infrastructural, and institutional aspects" (Sharifi, 2016, p. 644).

The Baseline Resilience Indicators for Communities (BRIC) method, developed by Susan Cutter and colleagues, provides a comprehensive approach to quantifying community resilience, taking into account key social, economic, infrastructural, and institutional factors (Scherzer, Lujala & Rød, 2019). Although the BRIC method was initially developed for assessing community resilience in the United States, it is adaptable and applicable in different contexts, as demonstrated by examples from Australia, Iran, Norway, Hungary, Nepal, and Taiwan (Camacho, Bower, Webb, & Munford, 2023).

Given that each country has its specificities adapting the BRIC method to local conditions is necessary to ensure that results are relevant and useful for disaster risk management policy development (Cutter, Burton, & Emrich, 2010). In this context, Serbia represents a characteristic case, as it is prone to various types of natural hazards, including floods, fires, earthquakes, droughts, and landslides, as well as disasters of non-natural origins. This diversity of risks necessitates the development of a predictive resilience model that considers the specific characteristics of Serbian local communities (Cvetković & Šišović, 2024).

Furthermore, the Disaster Resilience of Place (DROP) theoretical framework, which underpins the BRIC method, facilitates a deeper understanding of resilience through the analysis of social, ecological, and infrastructural factors in specific geographic contexts (Cutter, Burton, & Emrich, 2010). These indicators, as conceptual evidence of measuring baseline community resilience, utilise "preconditions" from the Disaster Resilience of Place framework, which describes the most critical conditions for resilience in a location before a catastrophic event. The DROP framework provides the basis for analysing the inherent vulnerabilities and resilience of communities before a disaster occurs, making it central to forming a comprehensive picture of resilience (Cutter et al., 2008).

2. Theoretical Aspect of Integrated Disaster Management

Disaster management can be regarded as a discipline and profession that applies science, technology, planning, and management to control extreme events that could injure or kill large numbers of people, cause significant property damage, and disrupt societal life (Phillips & Jenkins, 2010). It is widely accepted that two disaster management concepts are recognised today: traditional and contemporary. The primary differences between them lie in organisation, information, operational methods, management, and their respective goals. Traditional management can be characterised as more rigid, with clearly defined roles and responsibilities, and focused on the individual, yet it often lacks full decision-making capacity in certain segments (McLoughlin, 1985). In contrast, the contemporary approach to disaster management is characterised by flexible structures, a multidimensional approach, adaptability, an information orientation based on the current state, viewing the individual as a resource, and a focus on the entire community (Hromada & Lukáš, 2012; Savić, Stanković, & Anđelković, 2005).

To simplify the large amount of empirical data and to predict future events and actions, scientists often develop appropriate operational models to guide timely and optimal actions. Modelling simplifies complex events, provides a systematic and rapid response, improves current situational awareness, quantifies disasters, creates a comprehensive understanding base for all involved parties, and enables mitigation and recovery from disaster consequences (Cvetković, 2023).

When a disaster management model is well-defined, it serves as the foundation for all future activities. It formalises the response system and encompasses all phases of management. "The literature identifies the following general disaster management models: logical, integrated, causal, and others" (Asghar, Alahakoon, & Churilov, 2006, p. 31). Further, these general models are broken down into basic models. The integrated model is characterised by phases that consider disasters through strategic planning and monitoring. It represents the effective organisation of subjects and their activities with the goal of comprehensive action in the event of disasters. Events and actions related to them are intertwined. Like most models, the integrated model has four phases of disaster management: prevention, mitigation, response, and recovery. Furthermore, the integrated model does not address ecological conditions and their impact on the severity of disasters. However, due to its comprehensiveness, the integrated model is considered the optimal model for addressing disasters (Cvetković V., 2015).

The integrated disaster management model, developed in the 1980s, serves as the foundation for the modern approach to disaster management. In addition to encompassing all four management phases, it focuses on hazards and vulnerabilities, aiding decision-making in prevention, response, and recovery (Lettieri, Masella, & Radaelli, 2009). It enables the balancing and distribution of responses by society to disasters according to priorities (protection of life, property, or the environment). It ensures community sustainability in the aftermath of a disaster. The leading principles of the integrated management process are systematisation, partnership, uncertainty, geographic focus, reliable data, and scientific principles (Simonovic, 2011). These principles can be proactive (mitigation, preparation, and warning) and reactive (efficiency, cooperation, communication, objectives), acting before and after disasters occur. Therefore, the integrated model, as a systemic approach, enables risk assessment, prevention, mitigation, and preparation for disasters, thereby reducing the likelihood of their occurrence. It integrates existing knowledge and techniques for disaster reduction and response. In this way, it integrates all actors at all phases and levels of disaster management, efficiently managing resources (Henderson, 2004).

As with most disaster management models, the integrated model focuses on the "four phases: preparation, mitigation, response, and recovery. The outcome of the realisation of these phases is addressing problems

and shortcomings during management phases: prevention, mitigation, preparation, and response to disasters through strengthening local capacities and abilities, especially in risk management, which includes identifying, managing, and reducing risks and decision-making; a multidimensional and multidisciplinary approach in coordinating all actors and forces to achieve effective response and use of limited resources" (Henderson, 2004, p. 23).

"In these phases of Integrated Disaster Management, five processes are incorporated that complete disaster management: forecasting, warning, emergency assistance, recovery, and reconstruction" (Moe & Pathranarakul, 2006, p. 399). Forecasting involves measures to mitigate and prepare to limit the impacts of disasters. The warning phase involves informing people about the disaster so they can take appropriate measures. Emergency assistance is provided during and immediately after a disaster and can be immediate, short-term, or extended. Recovery involves measures taken after the disaster to restore or improve living conditions. "Reconstruction includes activities that allow the development of a system prepared for new disasters in a way that it can respond more efficiently" (Moe & Pathranarakul, 2006, p. 400).

To fully understand the Integrated Disaster Management model, it is also necessary to consider risk management. The context of risk is essential in the mitigation phase. Risk identification, analysis, and assessment are part of the mitigation and preparation phases. "Risk treatment or appropriate actions related to risk are linked to the response phase to the consequences of disasters" (O'Brien, O'Keefe, Gadema, & Swords, 2010, p. 500).

Managing or reducing the risk of disasters through the Integrated Disaster Management model is a systemic approach and process defined by administrative decisions, organised through institutions, supported by skills and knowledge for implementing defined policies, strategies, and overall societal capacities in combating disasters (Cvetković & Martinović, 2020). This model of Integrated Disaster Management has led to a shift in the approach to combating disasters. The focus has moved from recovery and rapid response to risk management and mitigation of disaster impacts. Moreover, the focus has shifted from the danger itself and protection from it to the potential threat to the community and the development of a warning system and measures to reduce vulnerability within the community. The principle has advanced to the point where disasters are considered at the local level within a society (Cyr, 2005). While the Integrated Disaster Management model has become a standard, there have been some deviations in standardising the approach and codifying the theoretical framework. The most significant scientific and theoretical foundations developed through the model concern the phases of the process, the subjects and forces of the protection and rescue system, the types and flow of information, and the technologies used as resources when addressing disasters (Balanggoy, 2024).

The organisation of Integrated Disaster Management can be viewed through its four-phase process. Preparedness entails a set of actions and procedures designed to mitigate the impact of disasters. This primarily concerns the acquisition of knowledge and capacities to predict, respond to, and recover from disasters successfully. Preparedness measures include developing appropriate plans for organising protection and rescue in disasters, training available personnel, identifying and dimensioning stockpiles, and preparing facilities for use. Preparation involves organising responses to disasters by forces and entities within the protection and rescue system, as well as ordinary citizens and civil organisations, who should be included in the planning process and receive appropriate training (Alexander, 2003). Plans developed must provide effective and efficient integrated disaster management. The main plan must provide a prepared framework within which institutions, organisations, and individuals can operate in a synchronised and optimal manner. Plans contribute to ensuring that engagement mechanisms and organisational activities are synchronised and routine, thereby maximising human potential (Wisner, 2004). To be applicable, plans must also include appropriate training for disaster response. Additionally, plans must be tested (Janković, Sakač, & Iričanin, 2023).

Mitigating the consequences of disasters aims to reduce the vulnerability of ecological and social systems by decreasing risk levels and preventing disasters from occurring. Mitigation measures are organised in advance of events and planned based on identified hazards. The mitigation approach includes prevention, protection of goods, and activities during disasters. The most vulnerable parts are identified, and organisational plans are developed to prevent vulnerability by creating favourable living conditions, collecting data, assessing damage, distributing aid, and mitigating other consequences. There are two ways to mitigate consequences: structural and non-structural. The first involves physical structures and infrastructure, while the second involves reducing the community's exposure to hazards (Cvetković, Romanić, & Beriša, 2023).

"Disaster response organisation aims to minimise human and material losses. Key elements of response include evacuation, care, protection, search and rescue, property protection, and damage control" (Henderson, 2004, p. 23). For this phase of the Integrated Disaster Management model, organisation and cooperation are crucial. This primarily refers to the entities that first have the opportunity to access the affected area and provide necessary assistance. The goal is to implement appropriate measures and ensure the continuity of work for all services during disasters. Measures are defined in disaster protection and rescue plans (Cvetković & Miladinović, 2018).

"Recovery from disasters involves a set of measures that rehabilitate the affected area or often restore it to the same or better condition than before the disaster" (Simonovic, 2011, p. 31). Institutions, organisations, and communities in the recovery phase must organise and implement measures to restore normal life as quickly as possible. This includes the restoration or construction of buildings, communication systems, supply systems, securing necessary materials, terrain sanitation, and all other activities that impact the normal life and functioning of the community. Naturally, recovery from a disaster depends on the extent of the damage caused by the disaster and the real possibilities for recovery under the given circumstances. Recovery, unlike reconstruction, involves organising short-term activities focused on temporary actions and solutions for given situations (Cvetković & Šišović, 2024).

3. Institutional Aspect

One of the most critical aspects of the Integrated Disaster Management model is the existence of institutions in a country that are capable of providing comprehensive and effective responses during disasters. The establishment of institutions is defined by the legal framework of each country, which precisely defines not only the institutions themselves but also their responsibilities and tasks in disaster situations (Lipovac & Cvetković, 2015). In addition to their existence and organisational structure, institutions must meet several key criteria, which also serve as measures of their capacity to respond to disasters. Institutions must satisfy organisational criteria, meaning they must have appropriate units prepared to respond to disasters. These units must be adequately staffed with individuals who meet the necessary expertise criteria. Furthermore, personnel must be trained and prepared to work during disasters, with clear tasks and responsibilities assigned to them within the institution in which they operate. Finally, to effectively counter disasters, institutions must be equipped with the necessary material resources essential for disaster response (Cvetković, Protić, & Stefanović, 2023).

According to widely accepted principles for the Integrated Disaster Management method, the Integrated Disaster Risk Reduction System relies on international agreements and strategies, including the Yokohama Declaration, the Hyogo Framework for Action, the Sendai Framework for Disaster Risk Reduction, and the International Strategy for Disaster Reduction. These agreements recognise the institutions involved in the systemic, integrated approach to disaster response (Jazić, 2015). Referring to the legislation of the Republic of Serbia, it can be concluded that it aligns with international norms for Integrated Disaster Management, and institutions can be divided into three main segments. These include state (national) institutions, which are further divided into state, regional, and local levels. Specifically, these include government bodies, provincial authorities, local self-government units, public services, educational institutions, research organisations, and public agencies. The second segment comprises the socio-economic sector, which encompasses the economy, entrepreneurs, and other legal entities. The third segment involves individuals and their organisations, such as groups, associations, and civil society organisations (Cvetković & Šišović, 2024). The role or function of these institutions in the disaster risk reduction system is regulated by state institutions through regulations within their jurisdiction. Notably, the Law on Disaster Risk Reduction and Emergency Management in the Republic of Serbia defines the role of the Government as the highest institution responsible for establishing, developing, coordinating, managing, and organising the integrated disaster risk reduction system. The Ministry of the Interior has been designated as the agency responsible for directly executing government tasks. Within this ministry, a special unit has been formed: the Sector for Emergency Situations, which addresses disaster-related issues. According to the law, the Ministry of the Interior is assigned 28 responsibilities that complete the Integrated Disaster Risk Reduction System. The Ministry of Defense is the second ministry with a role to play in disaster response if primary institutions are unable to address the situation. Other ministries, together with other state administration bodies and autonomous provinces, have defined obligations and tasks that ensure the smooth functioning of primary agencies during a disaster. Local self-government units are especially crucial, as they play a primary

role in disaster risk management. They are responsible for field-level tasks, including assessments and plans, as well as organising the execution of disaster response tasks, such as securing financial resources.

The second segment of institutions is from the socio-economic sector, which, according to the law, includes economic entities and other legal persons. These entities are required to take measures within their jurisdiction commensurate with the scale and nature of their activities. They are also obligated to provide their material resources or facilities to state authorities as needed and to provide relevant data to authorities for the creation of necessary documents and databases. Special emphasis is placed on critical infrastructure operators, including entities engaged in specific activities considered critical or possessing critical infrastructure. These entities are particularly obligated to contribute resources in disaster situations, ensuring the protection and rescue of people and assets (Cvetković, Filipović, & Gačić, 2019). Higher education institutions and scientific research organisations are also required to provide expert support and information relevant to disaster risk reduction and management.

Humanitarian organisations and associations with special significance, such as the Red Cross of Serbia, the Mountain Rescue Service, and the Firefighters' Union of Serbia, play a vital role in disaster situations. These organisations assist when necessary and, upon engagement, are designated as Civil Protection units. Other associations and organisations have the right to be informed and take an active role in matters related to disaster risk reduction. Their involvement can be proactive, particularly in improving the system or raising awareness of the issue. A special and unique status in the Integrated Disaster Management model is held by citizens. In addition to the right to full and comprehensive information, citizens are obligated to train and prepare for protection and rescue, participate actively in Civil Protection or Military units, respond to calls from established bodies for participation in their actions, and follow prescribed safety and rescue measures. Moreover, citizens must provide material goods and real estate when needed. The ability of institutions to respond adequately to all disaster risk reduction demands and immediate disaster situations primarily depends on the personnel and forces actively engaged in these tasks (Tanasić & Cvetković, 2024).

The Ministry of the Interior, through the Sector for Emergency Situations, organises response forces within its depth. The Sector, as the direct carrier of all activities, includes organisational units staffed with appropriate personnel. The Sector's components include the Directorate for Preventive Protection, the Directorate for Firefighting and Rescue Units, and the Directorate for Risk Management. Additionally, there are independent departments within the Sector that focus on economic and material-technical support, as well as legal and international affairs (Milošević, Cvjetković, & Baturan, 2024).

The law prescribes that the forces within the disaster risk reduction and emergency management system include emergency response staff, Civil Protection units, firefighting and rescue units, the 112 emergency service, the Serbian Armed Forces, the Red Cross of Serbia, the Mountain Rescue Service, the Firefighters' Union of Serbia, the Serbian Radio Amateur Federation, and various other entities. The institutional responsibility for training and preparing its members lies with the Ministry of the Interior, which operates regional and national training centres. For medical first aid training, health institutions and the Red Cross of Serbia are responsible for citizens, as well as Civil Protection units.

International cooperation between institutions within the Integrated Disaster Risk Reduction and Emergency Management System is a key segment for the system's effective and successful operation. This cooperation ensures the implementation of international agreements, data exchange, and direct collaboration with foreign and international bodies. A special aspect of international cooperation involves the receipt or dispatch of international aid, which may include specialised teams, equipment, and resources necessary for disaster response and recovery. Regardless of the system, the Red Cross of Serbia holds special rights and powers regarding international cooperation (Ivanov, 2024).

4. Organizational Aspect

The integrated disaster risk reduction system is based on a multidisciplinary and intersectoral principle. Its foundation is proactivity, which includes planning, preparation, and preventive measures to reduce disaster risks before they occur. As a modern approach, it signifies the presence of a preventive culture and fosters awareness of risks and the necessity for preventive actions. This approach integrates all aspects of society, from individuals to the highest state authorities, highlighting the importance and relevance of every actor involved.

The collaboration of numerous entities necessitates the creation of interoperability among them, enabling the simultaneous functioning of different sectors, including international aid, local communities, and individuals (Öcal, 2021).

For the integrated system to be successfully organised and operational, certain principles have been aligned to support this. The first principle is that people are the priority. The second principle is inclusivity, which highlights the need for the inclusion of all necessary entities coordinated by the disaster protection sector. The third principle emphasises the need to consider both human and environmental hazards without excluding either. The fourth principle is prevention and risk reduction, which integrates these into development processes and strategies. The fifth principle concerns the application of knowledge, innovation, and education, including the latest technologies and innovations, as well as training and educating the population. The sixth principle relates to the involvement and establishment of partnerships between the public and private sectors, civil society, and the academic community. The seventh principle is based on risk management founded on knowledge and information necessary to reduce risks and provide an adequate response. The eighth, final, and key principle is precautionary, referring to the adoption of all available preventive measures to reduce the risk of a disaster, even when there is no scientific certainty about whether or not a disaster will occur or its magnitude. This principle is applied across all levels of the Integrated Disaster Risk Reduction model, from policy and planning to funding, training, and implementation (United Nations Office for Disaster Risk Reduction, 2015).

In addition to these principles, the successful organisation and implementation of Integrated Disaster Risk Reduction require sound policy and its effective implementation, intersectoral cooperation, and public-private partnerships. The policy defines and influences societal priorities. It defines decision-making processes and the allocation of available resources within a society. Additionally, policy can guide society toward cooperation and coordination among different sectors, as well as influence the development of new capacities aimed at reducing disaster risks or enhancing the response to them. Generally, societies establish one or more central bodies to organise, coordinate, and guide the system in disaster risk reduction (Schneid & Collins, 2001).

The Republic of Serbia strives to implement all European Union directives in this field. These directives standardise practices across the entire community, contributing to interoperability in international cooperation. The European Union's disaster risk reduction policy is based on five priorities: prevention, preparation, response, recovery, and international cooperation. When it comes to intersectoral cooperation, it encompasses not only the essence and application of all the principles but also serves as an indicator of success in combating disasters. Since both risks and disasters are not one-dimensional and always affect a broad spectrum of societal elements, intersectoral cooperation is the foundation for all actions in society. A society's resilience depends on the cooperation of all its institutions and societal entities. Through this cooperation, not only is direct action and collaboration achieved, but it also enables the exchange of knowledge, experiences, and, above all, resources among sectors of society. This way, society can more effectively and efficiently move toward the desired resilience against disasters. Special attention should be given to intersectoral cooperation, with a focus on state institutions that need to initiate cooperation with the private and civil sectors or establish partnership relations. This leads to the formation of public-private partnerships, which create a new approach to organising the implementation of elements that contribute to risk reduction. The state and public sector often act as investors. In contrast, the private, scientific, or local sector becomes the main driver in the realisation of projects that reduce risk, as it often has all the other resources available except for financial means (Cvetković, 2023).

In the Republic of Serbia, the Law formulates these principles as guiding principles: priorities, integrated action and intersectoral cooperation, the primary role of local communities, gradual use of forces and resources, equality, joint participation, solidarity, and principles of public information. The disaster risk reduction system is organizationally integrated into the security system, which uniquely and comprehensively manages and organises all relevant entities. From a political perspective, the Strategy for Disaster Risk Reduction and Emergency Management is crucial for establishing policy and guiding government bodies and sectors in the country, thereby directing the engagement of relevant capacities. It also guides the development of the regulatory and institutional framework. The National Platform in Serbia is represented through the Republic Emergency Situations Headquarters, which incorporates the intersectoral approach to combating disasters and reducing their risks. Disaster risk assessments are conducted according to the vertical principle, meaning that institutions and entities, starting from the state level and working their way down to the lowest levels, are responsible for conducting such assessments in compliance with the law. After the risk assessment, the necessary Disaster Risk Reduction Plans are created, following the Law, which outlines organisational measures for the entire risk

reduction process. These plans also have a vertical structure, being developed from the national level down to the local level. Following these preventive plans, the Law also prescribes the development of protection plans. The protection and rescue plan provides an organisational framework for measures and activities aimed at preventing and mitigating the consequences of disasters. It consists of five key sections: early warning and preparedness, mobilisation and activation, protection and rescue, civil protection measures, and the use of protection and rescue forces and entities. The external protection plan for large accidents refers to local government units with complexes containing hazardous substances. Following assessments and plans, the state also regulates specific registers that cover all disaster risks and define risk zones (Cvetković, Filipović, & Gačić, 2019).

A crucial element in organising the Integrated Disaster Risk Reduction model is also the organisation of the disaster risk reduction system entities. The forces of these entities form the basis of integrated actions in reducing risks and combating disasters. To monitor and coordinate activities aimed at disaster risk reduction, as well as manage and coordinate activities during disasters, the state, according to the Law, establishes Emergency Situations Headquarters. These Headquarters are formed from the national level down to the municipal level. The Headquarters may form expert operational teams as needed, given that the command structure is composed of political figures appointed to specific positions. Regardless of their level, Headquarters have 13 defined competencies that pertain to organising the entire process of risk reduction or disaster response. Particularly important are the powers that have an imperative character concerning specific institutions or entities. In addition to the core competencies, depending on the level of the Emergency Situations Headquarters, each has a specific range of authority, with the highest authoritative powers granted to the Republic Emergency Situations Headquarters. The organisation of the Emergency Situations Headquarters is divided into three phases: the first is the preventive phase, the second is the operational phase, and the third is the recovery phase. In the preventive phase, the capabilities and readiness to respond to risks and threats are assessed. The operational phase is the most demanding, involving the organisation, leadership, and coordination of the entities and forces of the risk reduction and emergency management system. The recovery phase involves planning, organising, leading, and coordinating activities to enable the recovery, reconstruction, and rehabilitation of the affected community after a disaster. The expert operational teams formed by the Headquarters are responsible for specialised tasks that require the involvement of skilled and competent individuals and entities with the necessary capacities.

Civil protection is part of the forces within the disaster risk reduction and response system. Civil protection involves the personal and mutual protection of individuals, as well as measures, commissioners, deputy commissioners, and civil protection units. Personal and mutual protection is a form of citizen organisation. Civil protection measures are divided into 13 sections, including warning, evacuation, sheltering, care, CBRN protection, protection from technological accidents, rescue from debris, flood protection, rescue in inaccessible areas, fire and explosion protection, protection from unexploded ordnance, first aid, and terrain sanitation. For all these measures, organisational principles have been defined to outline how system forces must act during their implementation. Commissioners and deputy commissioners are considered members of civil protection, and their role is to coordinate the engagement of system forces during risk reduction and disaster response. Civil protection units represent equipped and trained operational forces of the system entities that engage in executing civil protection measures. These units are divided into general-purpose units and specialised civil protection units. The Ministry of the Interior forms specialised units, while local governments form general-purpose units and those for warning purposes. To enhance the capacity and capabilities of civil protection units, an active civil protection reserve can be established in accordance with the relevant regulations. Units are formed by the mentioned authorities in cooperation with the Ministry of Defense to ensure the alignment of records. Specialised units are formed for firefighting, water and underwater rescue, care, first aid, CBRN protection, debris rescue, and warning. Civil protection units can be engaged independently or in combination with other forces in situations such as the declaration of an emergency, extraordinary events, imminent natural disasters, or technological accidents, as well as during a state of emergency or war, for training and drills. General-purpose units are involved in other tasks related to risk reduction and mitigating the consequences of disasters to the greatest extent possible.

Firefighting rescue units, in one part, represent the only professional and continuously engaged components of the disaster risk reduction and emergency management system. This component consists of professional and permanently employed personnel within the Ministry of the Interior's Emergency Situations Sector. Generally, fire-fighting units can be either professional or volunteer-based. Professional units are divided into the following categories: firefighting rescue units of the Ministry of the Interior, firefighting units of the Ministry of Defence, firefighting units of local governments, and firefighting units of legal entities. Legal entities and associ-

ations can form volunteer firefighting units. Firefighting rescue units are territorially organised and prepared to respond in operations aimed at mitigating disaster occurrences, rescuing endangered populations and material goods, and mitigating the consequences of disasters. The organisation of professional firefighting units within the system is defined in the Law. It consists of 13 sections that generally pertain to the imperative powers of authorised commanders, who, in exchange for their engagement, have certain rights and capabilities, primarily concerning the disposal and use of material resources and the direction of other individuals during direct engagement processes (Emergency Situations Sector R. Serbia, 2025).

5. Disaster Resilience in Serbia

Disaster risks present a significant challenge to the stability and development of modern society. Serbia, a country exposed to various natural and technological hazards, has been increasingly investing efforts over the last few decades in building mechanisms for risk reduction and enhancing community resilience (Milenković, Cvetković, Ivanov, & Renner, 2024). The country is particularly vulnerable to a variety of natural and technological disasters, including floods, earthquakes, landslides, droughts, and wildfires. According to data, between 1915 and 2013, 848 floods were recorded, resulting in 133 fatalities, with the most significant event occurring in May 2014. In this context, the resilience of local communities becomes a key factor in reducing the risks and consequences of disasters (Cvetković et al., 2021).

Declarative commitments to building a functional, integrated disaster risk management system in Serbia have led to the absence of a well-established resilience index for local communities in the face of disasters. According to the United Nations Development Programme (UNDP) Development Program, institutional and management deficiencies and gaps in disaster risk reduction are identified as particular shortcomings, undermining the comprehensive capacity of communities to respond to disasters. Specifically, weaknesses in system organisation—such as fragmented institutional frameworks and procedures, as well as insufficiently developed local and national-level capacities for prevention, preparedness, and response—impact local communities (EU for Serbia, Resilient to Disasters, 2024).

A prerequisite for disaster preparedness, response, and recovery is the measurement of resilience, which has gained significant importance in recent decades and is a key goal in Serbia. In Serbia, a disaster risk assessment was carried out by the Ministry of Internal Affairs in 2017, and by comparing assessments while considering indicators and assessment models, a comprehensive quantitative assessment is enabled by the BRIC method, which effectively incorporates all the specifics and characteristics of Serbia (Milenković, Cvetković, & Renner, 2024). As resilience is increasingly viewed in literature as a multidimensional concept encompassing technical-infrastructural resilience, economic resilience, social cohesion, institutional sustainability, and psychological flexibility (Cutter, Ash, & Emrich, 2014), research in the Serbian context indicates that the weakest link in the system is precisely the institutional and social capacity for risk management, as particularly manifested during the 2014 floods (Cvetković, Jakovljević, & Gačić, 2015). Therefore, for the local Serbian context, a predictive model integrating sociological and psychological factors, such as a sense of belonging, social solidarity, trust in institutions, and participation in communal activities, has been developed as key predictors of resilience. Research-based on this predictive model has shown that high levels of social cohesion can compensate for institutional deficiencies, as evident in certain local communities during the 2014 floods in Obrenovac, Šabac, and other affected municipalities (Cvetković V., 2023).

The developed model, the "MODERSI Model" (Predictive Model of Community Disaster Resilience based on Social Identity Influences), was designed to analyse the impact of social indicators on the resilience level of communities. This model highlights the significance of trust, solidarity, and social cohesion in the recovery process following disasters. Religion and cultural values also influence risk perception and behaviour during disasters (Cvetković, 2023).

Cultural values, religion, and traditional norms significantly influence the perception of disasters and the way people respond. In Serbia, fatalism as a cultural pattern is often present—the belief that a disaster is "God's will"—which may reduce motivation for preventive action. On the other hand, religious communities and traditional forms of aid (e.g., communal work, charity events) can play a constructive role in mobilising the population. The positive religious influence manifests itself through the nurturing of solidarity, empathy, and

trust, but if not accompanied by institutional cooperation, its impact remains limited (Cvetković, Romanić, & Beriša, 2023).

Demographic and socioeconomic factors, such as age structure, education, income, gender, and health status of the population, play a significant role in assessing resilience. In Serbia, the population is generally older, with a high rate of youth emigration and insufficient representation of healthy working-age individuals in smaller communities. This significantly reduces the capacity of local communities to respond to disasters. Women, especially in rural areas, often have limited access to information, education, and disaster risk management training. However, research indicates that they exhibit a high degree of solidarity and practical engagement in crises, making them a valuable resource in recovery processes (Cvetković & Šišović, 2024).

Local governments play a key role in disaster risk management. However, they often face challenges such as a lack of resources, inadequate training, and limited cooperation with other institutions. Strengthening the capacities of local governments is essential for enhancing community resilience (Cvetković & Radonjić, 2022).

6. Conclusions

Contemporary societies possess the capacity to be more interconnected than earlier historical periods. This awareness of the increasing frequency and number of disasters is a result of scientific development, which has enabled the articulation of concepts such as disaster, hazard, risk, and vulnerability. The traditional approach to disaster management, in addition to its methodology, focused primarily on rapid response and recovery, where the individual and the local community were often passive observers of circumstances and situations. The modern concept, including the Integrated Disaster Risk Reduction System model, marks a significant shift from the traditional approach by focusing on risk management and disaster mitigation through a new, flexible, and multidisciplinary approach across its four phases of disaster management. In this model, the individual and local community are the core of all stages. This shift has contributed to the fact that today, organised societies are far better prepared to mitigate, respond to, and recover from disasters, creating even more favourable living conditions for affected communities (Cvetković V., 2015).

For the successful implementation of these phases, each modern society or state must establish the appropriate institutions. International initiatives and organisations often contribute to and guide countries in establishing institutions. The Republic of Serbia applies the principles of integrated disaster risk reduction and intersectoral cooperation, with the entire system incorporated into the comprehensive national security framework. However, institutional issues arise in Serbia when regulations and strategies that define approaches and goals are not synchronised or when the appropriate functional institutions are not formed according to needs.

To successfully build disaster resilience in Serbia, comprehensive intersectoral cooperation between the public and private sectors, alongside civil society participation, is essential. A prerequisite for this is a political will and a societal desire for system improvement (Cvetković, 2017; Cvetković & Radonjić, 2022).

Several key issues must be addressed to improve the disaster risk reduction system in Serbia and enhance societal resilience:

Institutional Strengthening of Local Governments

One of the most significant recommendations for enhancing the resilience of local communities is the systemic strengthening of institutional capacities at the municipal and city levels. Research has shown that many local self-government units in Serbia lack adequately trained personnel and infrastructure for responding to emergencies promptly. According to analyses of scientific works related to Serbia, one of the primary deficiencies is the lack of coordination between local services and national institutions. Furthermore, many municipalities lack up-to-date disaster response and rescue plans, resulting in slow responses and increased material and human losses. Therefore, it is crucial to invest in continuous education for employees, upgrade equipment, and establish a network of local risk management centres (Cvetković & Miladinović, 2018; Lipovac & Cvetković, 2015; Cvetković & Radonjić, 2022).

Citizen Inclusion in Planning

Citizen participation in the process of risk identification and the creation of disaster mitigation plans directly influences the increase of community resilience (Cvetković, Radovanović, & Milašinović, 2021). Research indicates that involving the population in decision-making processes fosters trust between institutions and citizens, promoting the acceptance of proposed measures (Cvetković et al., 2020). Local populations often possess specific knowledge about terrain, resources, and previous experiences that can significantly contribute to the realism and feasibility of plans. Mechanisms such as public debates, local forums, working groups, and volunteer teams within the community represent best practices that can enhance disaster response and reduce casualties and damage (Perić & Cvetković, 2019).

Development of a Culture of Prevention

In Serbia, prevention remains insufficiently present in public and institutional discourse, a result of both cultural and systemic factors. The development of a prevention culture entails adopting a long-term and sustainable approach to educating the population about risks, protective measures, and the role of each individual in mitigating disaster impacts (Cvetković V., 2016). This implies the necessity of introducing preventive topics into formal education, organising public campaigns through the media and social networks, and conducting regular training at the community level (Grozdanić G., Cvetković, Lukić, & Ivanov, 2024).

Integration of Traditional Values

In many communities in Serbia, particularly in rural areas, traditional values, culture, and religious norms play a significant role in shaping behaviour and social relations. Research indicates that religious communities can be a powerful resource in fostering solidarity, empathy, and collective mobilisation during crises. However, if these values are not integrated into formal risk management systems, they remain limited in scope. An example of good practice is establishing cooperation between municipal emergency response teams and religious communities to organise training, joint actions, or campaigns. Such cooperation not only increases social cohesion but also enables a faster and more effective response during times of crisis (Cvetković, Babić, & Gačić, 2017; Cvetković, Romanić, & Beriša, 2023).

Scientifically-Based Planning

The use of validated scientific models to measure and monitor resilience at the community level represents an important step toward effective risk management. The BRIC method is one of the most internationally recognised tools for assessing resilience, encompassing dimensions of social, economic, institutional, and infrastructural resilience (Milenković, Cvetković, & Renner, 2024). In Serbia, the MODERSI model has been developed and adapted to take into account specific social factors, including trust in institutions, local identity, and a sense of belonging (Cvetković, 2023). By utilising these tools, local governments and state institutions can objectively evaluate the strengths and weaknesses of their communities and develop targeted interventions and investment priorities based on this information. Comprehensive and integrated disaster management and resilience enhancement require continuous efforts and the involvement of all relevant actors and resources within society. Only through collective efforts and cooperation can more resilient societies be built, capable of handling the challenges posed by disasters and protecting lives, property, and the environment.

Funding: This research was funded by the Scientific–Professional Society for Disaster Risk Management, Belgrade (https://upravljanje-rizicima.com/, accessed April 10, 2025) and the International Institute for Disaster Research, Belgrade, Serbia (https://idr.edu.rs/, accessed April 10, 2025).

Acknowledgements: The author acknowledges the use of ChatGPT 4.0 in the process of translating and improving the clarity and quality of the English language in this manuscript. The AI tools assisted in language enhancement but were not involved in developing the scientific content. The authors take full responsibility for the originality, validity, and integrity of the manuscript.

Conflicts of Interest: The author declares no conflicts of interest.

References

1. (2025, February 15). Retrieved from Sektor za vanredne situacije: http://prezentacije.mup.gov.rs/svs/
2. Aldrich, P. D. (2012). Building resilience: Social capital in post-disaster recovery. Chicago: The University of Chicago Press.
3. Alexander, D. (2003). Natural disasters. Berlin: Springer.
4. Alexander, D. E. (2013). Resilience and disaster risk reduction: an etymological journey. Natural Hazards and Earth System Sciences, 13(11), 2707-2716.
5. Asghar, S., Alahakoon, D., & Churilov, L. (2006). A Comprehensive Conceptual Model for Disaster Management. Journal of Humanitarian Assistance, 1-15.
6. Balanggoy, H. K. (2024). Implementation of Disaster Risk Reduction and Management. International Journal of Disaster Risk Management, 6(2), 119-131. doi:https://doi.org/10.18485/ijdrm.2024.6.2.8
7. Camacho, C., Bower, P., Webb, R., & Munford, L. (2023). Measurement of community resilience using the Baseline Resilience Indicator for Communities (BRIC) framework: A systematic review. International Journal of Disaster Risk Reduction, 95. doi:https://doi.org/10.1016/j.ijdrr.2023.103870
8. Cimellaro, G. P., Reinhorn, A. M., & Bruneau, M. (2010). Framework for Analytical Quantification of Disaster Resilience. Engineering Structure, 32(11), 3639-3649.
9. Cutter, S. L., Ash, K. D., & Emrich, C. T. (2014). The geographies of community disaster resilience. Global Environmental Change, 29, 65-77. doi:https://doi.org/10.1016/j.gloenvcha.2014.08.005
10. Cutter, S. L., Barnes, L., Berry, M., Burton, C., Evans, E., Tate, E., & Webb, J. (2008). A place-based model for understanding community resilience to natural disasters. Global Environmental Change, 18(4), 598–606. doi:https://doi.org/10.1016/j.gloenvcha.2008.07.013
11. Cutter, S. L., Burton, C. G., & Emrich, C. T. (2010). Disaster Resilience Indicators for Benchmarking Baseline Conditions. Journal of Homeland Security and Emergency management, 7(1). doi:https://doi.org/10.2202/1547-7355.1732
12. Cvetković, V. (2015). Integrisano upravljanje u prirodnim katastrofama. In S. Mijalković, Suprotstavljanje savremenom organizovanom kriminalu i terorizmu (pp. 291-322). Beograd: Kriminalističko-policijska akademija.
13. Cvetković, V. (2016). Uticaj demografskih, socio-ekonomskih i psiholoških faktora na preduzimanje preventivnih mera. Kultura polisa, 13(32), 393-404.
14. Cvetković, V. (2017). Krizne situacije–pripremljenost države, lokalne zajednice i građana. Vojno delo, 69(7), 122-136. doi:10.5937/vojdelo1707122C
15. Cvetković, V. (2023). Predictive Model of Community Disaster Resilience based on Social Identity Influences (MODERSI). International Journal of Disaster Risk Management, 5(2), 57-80. doi:https://doi.org/10.18485/ijdrm.2023.5.2.5
16. Cvetković, V., & Ivković, T. (2022). Social Resilience to Flood Disasters: Demographic, Socio-Economic And Psychological Factors of Impact. The 6th International Symposium on Natural Hazards and Disaster Management (ISHAD2022). 5(2), pp. 299-317. Bursa: Academic Perspective Procedia.
17. Cvetković, V., & Martinović, J. (2020). Innovative Solutions for Flood Risk Management. International Journal of Disaster Risk Management, 2, 71-99. doi:https://doi.org/10.18485/ijdrm.2020.2.2.5
18. Cvetković, V., & Miladinović, S. (2018). Spremnost sistema zaštite i spasavanja Republike Srbije za implementaciju integrisanog upravljanja rizicima od katastrofa – preporuke za sprovođenje istraživanja. Ecologica, 25(92), 995-1001.
19. Cvetković, V., & Radonjić, S. (2022). Ugrožavanje bezbednosti lokalnih zajednica u vanrednim situacijama izazvanim poplavama. Politika nacionalne bezbednosti, 22(1), 81-105. doi:https://doi.org/10.22182/pnb.2212022.4
20. Cvetković, V., & Šišović, V. (2024). Community Disaster Resilience in Serbia. Belgrade: Scientific-Professional Society for Disaster Riske Managment.

21. Cvetković, V., & Šišović, V. (2024). Understanding the Sustainable Development of Community (Social) Disaster Resilience in Serbia: Demographic and Socio-Economic Impacts. Sustainability, 16(7), 2620. doi:https://doi.org/10.3390/su16072620
22. Cvetković, V., Babić, S., & Gačić, j. (2017). Religiousness level and citizen preparedness for natural disasters. Vojno delo, 69(4), 253-262. doi:10.5937/vojdelo1704253C
23. Cvetković, V., Filipović, M., & Gačić, J. (2019). Zbirka propisa iz oblasti upravljanja rizicima od katastrofa. Beograd: Naučno-stručno društvo za upravljanje rizicima u vanrednim situacijama.
24. Cvetković, V., Jakovljević, V., & Gačić, J. (2015). Floods in the Republic of Serbia – Vulnerability and Human Security. Twenty Years of Human Security: Theoretical Foundations and Practical Applications (pp. 277-286). Beograd: Fakultet Bezbednosti Univerzitet u Beogradu. Retrieved from https://rhinosec.fb.bg.ac.rs/handle/123456789/299
25. Cvetković, V., Nikolić, N., Radovanović Nenadić, U., Ocal, A., Noji, E. K., & Zečević, M. (2020). Preparedness and Preventive Behaviors for a Pandemic Disaster Caused by COVID-19 in Serbia. International Journal of Environmental Research and Public Health, 17(11). doi:https://doi.org/10.3390/ijerph17114124
26. Cvetković, V., Protić, D., & Stefanović, D. (2023). Integrisano smanjenje rizika od katastrofa izazvanih požarima: pregled literature. Diplomatija i bezbednost, 2, 65-90.
27. Cvetković, V., Radovanović, M., & Milašinović, S. (2021). Komunikacija o rizicima od katastrofa: stavovi građana Srbije. Sociološki pregled, 55(4), 1610-1647. doi:https://doi.org/10.5937/socpreg55-34018
28. Cvetković, V., Romanić, S., & Beriša, h. (2023). Religion Influence on Disaster Risk Reduction: A Case Study of Serbia. International Journal of Disaster Risk Management, 5(1), 67-81. doi:https://doi.org/10.18485/ijdrm.2023.5.1.6
29. Cvetković, V., Tanasić, J., Ocal, A., Keštović, Ž., Nikolić, N., & Dragašević, A. (2021). Capacity Development of Local Self-Governments for Disaster Risk Management. International Journal of Environmental Research and Public Health, 18(19). doi:https://doi.org/10.3390/ijerph181910406
30. Cyr, J. (2005). At Risk: Natural Hazards, People's Vulnerability, and Disasters. Journal of Homeland Security and Emergency Management, 2(2). doi:doi.org/10.2202/1547-7355.1131
31. Department of Economic and Social Affairs. (2018, May 16). Retrieved February 7, 2025, from United Nations: https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html
32. EU za Srbiju otpornu na katastrofe. (2024, april 1). Retrieved from https://www.undp.org/: https://www.undp.org/sr/serbia/projects/eu-za-srbiju-otpornu-na-katastrofe
33. Grozdanić, G., & Cvetković, V. (2024). Exploring Multifaceted Factors Influencing Community Resilience to Earthquake-Induced Geohazards: Insights from Montenegro. Belgrade: Scientific-Professional Society For Disaster Risk Management.
34. Grozdanić, G., Cvetković, V., Lukić, T., & Ivanov, A. (2024). Sustainable Earthquake Preparedness: A Cross-Cultural Comparative Analysis in Montenegro, North Macedonia, and Serbia. Sustainability, 16(8). doi:https://doi.org/10.3390/su16083138
35. Henderson, L. J. (2004). Emergency and Disaster: Pervasive Risk and Public Bureaucracy in Developing Nations. Public Organization Review: A Global Journal, 4, 103-119. doi:https://doi.org/10.1023/B:PORJ.0000031624.46153.b2
36. Holling, S. C. (1973, September). Resilience and stability of ecological systems. Annual Review of Ecology and Systematics, 4, pp. 1-23.
37. Hromada, M., & Lukáš, L. (2012). Critical infrastructure protection and the evaluation process. International Journal of Disaster Recovery and Business Continuity, 3, 37-46.
38. Ivanov, A. (2024). Disaster Risk Reduction and Disaster Risk Management: State of Play in North Macedonia. International Journal of Disaster Risk Management, 6(2), 202-212. doi:https://doi.org/10.18485/ijdrm.2024.6.2.13
39. Janković, B., Sakač, A., & Iričanin, I. (2023). Students' Perception of Police Readiness to Respond to Disasters Caused by a COVID-19 Pandemic. International Journal of Disaster Risk Management, 5(1). doi:https://doi.org/10.18485/ijdrm.2023.5.1.4

40. Jazić, A. (2015). A new approach to the system of civil protection in the European Union. Međunarodni problemi, 67(1), 64-78. doi:DOI:10.2298/MEDJP1501064J
41. Lettieri, E., Masella, C., & Radaelli, G. (2009). Disaster management: findings from a systematic review. Disaster Prevention and Management, 18(2), 117-136. doi:https://doi.org/10.1108/09653560910953207
42. Lipovac, M., & Cvetković, V. (2015). Integrisani sistem zaštite i spasavanja u vanrednim situacijama - sistem „broj 112 za hitne pozive". Evropsko zakonodavstvo(54), 300-307.
43. Manyena, S. B. (2006). The concept of resilience revisited. Disaster, 30(4), 434-450.
44. Masson-Delmotte, V., Zhai, P., Pörtner, H.-O., Roberts, D., Skea, J., & Shukla, P. R. (2018). Global warming of 1.5°C. Geneva: Intergovernmental Panel on Climate Change.
45. McLoughlin, D. (1985). A Framework for Integrated Emergency Management. Public Administration Review, 45, 165-172. Retrieved from https://www.jstor.org/stable/i357337
46. Milenković, D., Cvetković, V., & Renner, R. (2024). A Systematic Literary Review on Community Resilience Indicators: Adaptation and Application of the BRIC Method for Measuring Disasters Resilience. International Journal of Disaster Risk Management, 79-103. doi:https://doi.org/10.18485/ijdrm.2024.6.2.6
47. Milenković, D., Cvetković, V., Ivanov, A., & Renner, R. (2024). The Impact of Cyber Space on Security in the Context of Armed Conflicts: Toward Disaster Risk Resilience. International yearbook(1), 29-53. doi:DOI: 10.20544/IYFS.44.1.24
48. Milošević, G., Cvjetković, C., & Baturan, L. (2024). State Aid in Reconstruction of Natural and Other Disasters Consequences Using the Budget Funds of the Republic of Serbia. International Journal of Disaster Risk Management, 6(2), 169-182. doi:https://doi.org/10.18485/ijdrm.2024.6.2.11
49. Moe, T. L., & Pathranarakul, P. (2006). An Integrated Approach to Natural Disaster Management: Public Project Management and Its Critical Success Factors. Disaster Prevention and Management, 15(3), 396-413. doi:https://doi.org/10.1108/09653560610669882
50. O'Brien, G., O'Keefe, P., Gadema, Z., & Swords, J. (2010). Approaching disaster management through management. Disaster Prevention and Management, 19(4), 498-508. doi:https://doi.org/10.1108/09653561011070402
51. Öcal, A. (2021). Disaster Management in Turkey: A Spatial Approach. International Journal of Disaster Risk Management, 3(1). doi:DOI:https://doi.org/10.18485/ijdrm.2021.3.1.2
52. Perić, J., & Cvetković, V. (2019). Demographic, Socio-Economic and Phycological Perspective of Risk Perception from Disasters Caused by Floods: Case Study Belgrade. International Journal of Disaster Risk Management, 1(2), 31-43. doi:https://doi.org/10.18485/ijdrm.2019.1.2.3
53. Phillips, B., & Jenkins, P. (2010). The roles of faith-based organisations after Hurricane Katrina. In R. P.-R. Kilmer (Ed.), Helping families and communities recover from disaster: Lessons learned from hurricane Katrina and its aftermath (pp. 215-238). Washington DC: American Psychological Association. doi:https://psycnet.apa.org/doi/10.1037/12054-009
54. Savić, S., Stanković, M., & Anđelković, B. (2005). Preventivno inženjerstvo-sistemsko inženjerstvo rizika. Istraživanja i projektovanja za privredu, 3, 17-28.
55. Scherzer, S., Lujala, P., & Rød, J. K. (2019). A community resilience index for Norway: an adaptation of the baseline resilience indicators for communities (BRIC). International Journal of Disaster Risk Reduction, 36. doi:https://doi.org/10.1016/j.ijdrr.2019.101107
56. Schneid, T. D., & Collins, L. (2001). Disaster Management and Preparedness. New York: Lewis Publishers.
57. Sharifi, A. (2016). A critical review of selected tools for assessing community resilience. Ecological Indicators, 629-647. doi:https://doi.org/10.1016/j.ecolind.2016.05.023
58. Simonovic, S. (2011). Systems approach to management of disasters: methods. New Jersey: John Wiley & Sons.
59. Tanasić, J., & Cvetković, V. (2024). The Efficiency of Disaster and Crisis Management Policy at the Local Level: Lessons from Serbia. Beograd: Scientific-Professional Society for Disaster Risk Management.

60. UN ISDR. (2009). Terminology on Disaster Risk Reduction. Geneva: United Nations International Strategy for Disaster Reduction.
61. United Nations Office for Disaster Risk Reduction. (2015). Sendai framework for disaster risk reduction 2015-2030. Geneva: United Nations Office for Disaster Risk Reduction. Retrieved from www.unisdr.org
62. United Nations Office for Disaster Risk Reduction. (2015). Sendai Framework for Disaster Risk Reduction 2015-2030. Geneva: United Nations Office for Disaster Risk Reduction.
63. Wisner, B. (2004). Natural Hazards, People's Vulnerability and Disasters. London: Routledge.