

Managing Local Communities for Emergency Preparedness

Cristina Dima¹, Carmen Valentina Rădulescu², Ioan Gâf-Deac³ and Radu Florin Chiotan⁴

¹⁾²⁾⁴⁾ *Bucharest University of Economic Studies, Romania*

³⁾ *INCE - CEMONT Romanian Academy, Bucharest, Romania*

E-mail: cristina.dima@man.ase.ro; E-mail: carmen-valentina.radulescu@eam.ase.ro;

E-mail: gafdeac@ince.ro; E-mail: chiotanradu19@stud.ase.ro

Please cite this paper as:

Dima, C., Radulescu, CV., Gîf-Deac I., and Chiotan, RF., 2025. Managing Local Communities for Emergency Preparedness In: C. Vasiliu, D.C. Dabija, A. Tziner, D. Pleșea, V. Dinu eds. 2025. *11th BASIQ International Conference on New Trends in Sustainable Business and Consumption*. Oradea, Romania, 26-28 June 2025. Bucharest: Editura ASE, pp. 28-34

DOI: 10.24818/BASIQ/2025/11/009

Abstract

Disaster control corporations make investments differing tiers of sources into guiding groups to get equipped for a number of hazards, and are an increasing number of turning to network engagement as a manner of growing preparedness. This paper provides a scientific literature evaluate that reviews at the impact of network communicate and engagement strategies which have been utilized in a risk preparedness context. The evaluate findings propose that maximum network engagement strategies are powerful in producing a few stage of extended preparedness. Face to stand strategies have been greater always a success than mass media campaigns. This article examines the role of local public administration, non-governmental organisations and citizens in strengthening the capacity to respond to natural and man-made disasters. It discusses the main planning, communication and training tools that can contribute to the development of a culture of prevention and the active involvement of communities in reducing vulnerabilities. The study emphasises the importance of inter-institutional collaboration, access to relevant information and regular simulations to increase preparedness. However, all the intervention sorts mentioned had a few degree of success, despite the fact that there have been man or woman failures. Agency efforts to interact groups in preparedness ought to encompass a extensive variety of strategies that paintings collectively to alternate behaviour, along with face-to-face network engagement that triggers and helps network-led preparedness activity. The complicated person of the subject calls for the configuration of the perfect methodology- the established order of objectives, directions, hypotheses, and techniques- critical withinside the improvement of a great studies. The originality of the article lies in the fact that the research targeted by this has an applied importance, given that it presents the necessary information related to the perception of the local community in the event of a disaster, which can lead to real help for the authorities and beyond.

Keywords

Disasters, local government public education, risk assessment, emergencies

DOI: 10.24818/BASIQ/2025/11/009

Introduction

Internationally, the number and intensity of crises, natural disasters, major accidents and terrorist attacks have increased in recent years (Masterson et al., 2014), which puts pressure on institutions responsible for emergency management to find solutions to prepare the population and communities for unexpected events and to intervene for their effective management (McGuire&Silvia, 2010).

This is a difficult task because many crisis situations affect large geographical areas and their resolution falls under the responsibility of several institutions at local and national levels (Burlacu, 2019).

The diversity of emergency situations and the unpredictable nature of some of them require a high degree of flexibility in their management (Beunen, Patterson and Van Assche, 2017), but public institutions operate

within a rigid legal framework that establishes clear responsibilities in the management of emergency situations (Kapucu, Arslan and Demiroz, 2010).

Therefore, crisis management requires a flexible, robust, adaptable governance style, based on collaboration and coordination, but which is based on plans that define clear responsibilities and intervention modalities (Farazmand, 2007; Ansell, Sørensen, and Torfing, 2023).

Emergency management refers to the set of measures that are adopted before, during, and after the occurrence of a major negative event (Călin et al., 2022). These measures can be grouped into four categories (Henstra, 2010): (a) anticipation and preparedness measures to increase a community's chances of responding to emergencies, (b) measures to prevent and mitigate the impact of hazards, (c) response measures during the occurrence of a hazard and to help victims, and (d) rehabilitation measures after a disaster. A very important component of this process is the set of preparedness measures that are adopted to identify, assess and understand the risks of emergency situations (Cimellaro, 2016; Christensen, Lægreid and Rykkja, 2016), prepare intervention plans, create institutional structures to manage intervention actions, as well as a well-coordinated network of structures to intervene in the event of an emergency situation and in recovery efforts (Farazmand, 2007). Authorities should organize training courses to learn how each participant should act, as well as simulation exercises of possible emergency situations to familiarize themselves with them (Henstra, 2010). It should also be planned how to provide support to people with disabilities, the elderly or those with certain special needs (Duda et al., 2020).

1. Review of the scientific literature

The emergency management literature uses the terms crises, disasters and turbulence. Crises refer to situations in which there is a threat to the core values of a social system and which impede its normal functioning and require urgent intervention (Christensen, Lægreid and Rykkja, 2016). Crises are larger in scale than more frequent emergencies, such as road accidents or fires.

Crises are unpredictable and require a rapid response (Ladaru et al., 2022). The term disaster is used to refer to those situations when an event causes significant consequences in several areas (social, economic, medical, etc.) that exceed the capacity of a community to cope with these consequences (Henstra, 2010). Disasters come in many forms, such as natural disasters (caused by hurricanes or tornadoes, earthquakes, massive floods, tropical cyclones, volcanic eruptions, wildfires, landslides, etc.) or man-made disasters (e.g. terrorist attacks, industrial accidents, fires, nuclear explosions, transportation accidents, etc.).

Chang Seng (2013) argues that some natural disasters can be seen as actually caused by humans, because they did not take the necessary measures to prevent them. The same author highlights that, in other situations, a natural disaster can cause another disaster (for example, an earthquake can cause a tsunami, which can cause flooding). Disasters capture public attention and put pressure on responsible institutions to find urgent solutions that can materialize in new policies or increased funding to prevent similar situations (Cram&Garcia-Zanor, 2016). Thus, the main distinction between the terms emergency, crisis and disaster is the scale and intensity of the events that cause these situations, as well as the severity of the consequences generated (Melo Zurita et al., 2018).

Ansell, Sorensen and Torfing (2023) use the broader term turbulence to refer to situations when unexpected and unforeseen events generate changes in different areas, and argue that the occurrence of turbulence has become a constant in the functioning of public administration. Thus, they argue that, currently, public institutions must learn to function in an environment characterized by turbulence, that is, instability (Rădulescu et al., 2023). In this article, the generic term emergency will be used predominantly, having all the meanings mentioned above (crises, disasters or turbulence) because it is consistent with the term that is used in Romania to refer to these situations.

Regardless of the intensity of unexpected events, one of the themes that is analyzed in the specialized literature is how to manage emergencies and mainly the need to adapt the way they are managed. The following section will present the main emergency management paradigms, as discussed in the specialized literature, starting from the analysis of how certain crisis situations or natural disasters have been managed in the past and how the current context has evolved (Krogh&Lo, 2023).

2. Research methodology

The purpose of the research was to analyze the management offered by the actors that help communities in Romania to be better prepared in the event of an emergency situation (such as natural disasters, major work

accidents or road accidents with multiple victims, floods, etc.). In this regard, an opinion poll was conducted among the Inspectorates for Emergency Situations, which know the characteristics of the communities that are better prepared for such situations, because they are the first to arrive at the scene of the events and are the ones that provide help in the first phase.

Thus, in the previous year, 145 questionnaires were sent by mail, of which 45 to the Inspectorates for Emergency Situations in the county capitals and 110 to the Fire Departments in cities other than the county capitals.

The questionnaire was accompanied by a letter addressed to the head of the institution informing him about the purpose of the research and asking him to complete the questionnaire. 65 completed questionnaires were returned, which represents a response rate of 48.3%. The authors decided to keep for analysis also the questionnaires that were partially completed. Responses were received from institutions in all eight development regions of the country, so the research is nationally representative.

Most of the respondents have over 20 years of experience in the workplace (62.8%) and it can be assumed that they have an informed opinion on the researched topic. Most of them work in county capital municipalities (56.1%), which means that they work within the County Inspectorates for Emergency Situations.

3. Results and discussion

Respondents were asked to rate on a scale of 1 to 5 (where 1 represents not at all and 5 represents very much) a series of statements describing the capacity of the institution they work for to intervene in emergency situations (Table no. 2). Respondents stated that their institutions collaborate well with the Mayors in their area of intervention (average score is 3.86) and that they carry out sufficient actions to train key actors on how to intervene in emergency situations (average score is 3.85). With slightly lower scores, it emerged that the institutions have the necessary equipment (3.66) and sufficient personnel (3.58) to intervene in emergency situations. The lowest score was given to the statement regarding the voluntary offering by the population to help in the event of emergency situations (2.8).

The scores awarded for these statements illustrate the creation of collaboration networks with the City Halls in the territorial area of intervention and the carrying out of training courses together with various key actors.

Table no. 1. Factors influencing the institution's ability to intervene in emergency situations

	Average	Standard deviation
Collaboration with the municipalities in your area of intervention in emergency situations is good	3,88	0,694
Sufficient actions are carried out to train the population about intervention in emergency situations	3,85	0,675
The institution has the necessary equipment for emergency situations	3,66	0,676
The institution has sufficient personnel to intervene in emergency situations	3,58	0,798
The population is interested in volunteering in emergency situations	2,8	0,812

Respondents were asked to rate on a scale of 1 to 5 (where 1 represents not at all and 5 represents very much) a series of statements characterizing the level of preparedness for emergency situations of the localities in the area of responsibility of the institution in which they work (see Table no. 1). The results show that in the vast majority of localities there is a Voluntary Emergency Service (4.28), there is a person employed to coordinate this service (4.34) and simulations have been carried out with key actors in the territory on how to intervene in the event of an emergency situation (4.15).

Community preparation also involves carrying out an analysis of the risks to which the locality is exposed (3.87), adopting emergency management plans (3.66) and keeping a record of volunteers willing to help in the event of unforeseen situations.

The level of perception regarding the implementation of infrastructure investments to prevent emergency situations is average (2.62), which illustrates that some localities have not taken the necessary measures to prevent these risks, although these localities have identified risks that could arise. There may be several causes that explain this situation. A possible reason could be that the municipalities do not have the financial resources to make the necessary investments or that making the necessary investments is not the responsibility of the municipalities. Another reason may be that they perceive that there is a low probability of the identified risks occurring or, in the event of their occurrence, the intensity of the consequences will be low, so that very expensive investments would be disproportionate compared to the anticipated consequences.

Regardless of the risks that may arise, there is a need to make more investments in infrastructure to prevent the occurrence of emergency situations

Members of emergency services are some of the actors who know such situations best and therefore have an informed opinion about the characteristics of the localities they help to better overcome such situations. In this regard, respondents were given a set of statements and were asked to evaluate them on a scale from 1 to 5 (where 1 represents not at all and 5 represents very much). The main factors that help communities cope with emergency situations can be grouped into factors related to: a) local administration and the prevention measures they adopt, and b) locality characteristics.

The majority opinion is that a mayor concerned with the good administration of the locality is the most important factor for successfully overcoming an unforeseen situation (the average score is 4.45 out of 5). Other important factors related to local government are collaboration with other institutions (4.35) and warning the population about the risks that exist in the locality and educating citizens on how to intervene in emergency situations (4.28). Equally important are making investments to prevent the occurrence of emergency situations (4.15) and educating members of the Voluntary Emergency Service on the measures to adopt (4.16).

The characteristics of a locality are also important. Respondents are of the opinion that a community located in an area accessible by road overcomes an emergency situation more easily (4.24). A possible explanation may be that such localities can receive help faster or the population can find shelter more easily. The social capital of the community is another important factor.

Thus, localities where people help each other (4.13) or where residents are involved in community life and participate in decision-making (3.95) can more easily overcome situations that disrupt the proper functioning of the community. Localities are also more resilient if they have a medical unit with permanent staff (3.98) and a diversified economic base (3.46).

Table no. 2. Characteristics of a locality that helps in an emergency situation.

	Average	Standard deviation
The locality has a mayor concerned with good administration	4,45	0,555
There is good collaboration with other institutions that intervene in emergency situations	4,35	0,565
Residents have been warned about the risks existing in the locality	4,28	0,648
The locality is located in an area easily accessible by road	4,24	0,628
Investments have been made in the locality in infrastructure to prevent emergency situations	4,13	1,008
Residents help each other	4,15	0,772
There is a medical unit with permanent staff in the locality	3,98	0,685
Residents are involved in the life of the area and actively participate in decision-making	3,95	0,813
The locality has a diversified economic base	3,46	0,838
The locality's population is relatively young	3,2	0,992

The literature highlights the importance of social capital in a community for its ability to overcome emergencies. Members of emergency response institutions observe how people behave in such situations and can provide important information about how they help each other. Thus, respondents were asked to

evaluate on a scale from 1 to 5 (where 1 represents not at all and 5 represents very much) a series of statements regarding the behavior of citizens in emergency situations.

The data collected show that most often relatives help each other (mean score is 4.15) and neighbors offer help (3.94). These results are to be expected given the closer ties that exist between family members or between people living in the vicinity. We also observe high scores for the help provided to people who cannot cope with emergencies alone (3.7).

The result obtained for the statement that people would rather wait for the authorities to help them than help each other is interesting. The average score is 3.54, but the standard deviation is 1.009, which illustrates that opinions are divided among respondents, with some agreeing with this statement to a very high extent and others to a low extent.

The result can be explained by the fact that people do not have the capacity to help others as long as they themselves need help, or solidarity between people may be lower in situations of natural disasters that have a large scope. The result that people prefer to put their lives in danger rather than leave their home is worrying (average score 3.26, but a possible explanation may be that the home is often the most valuable asset of a family, so people find it difficult to leave their home.

Table no. 3. The ways in which people help each other when an emergency occurs

	Average	Standard deviation
Relatives help each other	4,15	0,545
Neighbors help each other	3,94	0,620
People help people in need	3,7	0,772
Residents help each other when a critical situation occurs	3,61	0,778
People wait for the authorities to help them	3,54	1,009
Residents help each other after a critical situation occurs	3,46	0,842
People help to save people living in more isolated areas	3,45	0,802
People prefer to put their lives in danger than leave their homes	3,28	0,928

Respondents were asked to rate on a scale of 1 to 5 (where 1 represents not at all and 5 represents very much) the extent to which people offer each other different forms of help within the localities in the intervention area of the institution in which they work. The main ways of helping each other are announcing the imminence of a danger (average score is 3.75) and offering emotional support and encouragement to other people (3.6). Support also consists of caring for the children of families affected by a disaster (3.45) and helping to save property (3.41) and people in danger (3.39). Physical labor support in rebuilding affected households is also common (3.05), but the standard deviation is 0.984, which means that this form of support is not used in all localities (see table 3).

When a large proportion of households in a locality are affected by a disaster, it is difficult for people to help each other, given that most of them need help. Above-average scores are also obtained for providing material aid (2.9) and financial aid (2.48), but these forms of aid are probably more difficult to provide in the case of disasters of extensive proportions. The results presented above illustrate the important role that City Halls play in emergency management by identifying the risks to which a community is exposed and taking measures to prevent and prepare communities for possible types of disasters. However, the research has shown that identifying risks is not always followed by investments in infrastructure to mitigate the danger. The main results obtained will be analyzed below.

As for framework agreements, their number decreased from 6.824 in 2021 to 6.675 in 2022 and then to 5.695 in 2023. This trend may indicate a change in the priorities of contracting authorities, influenced by factors such as legislative changes or different procurement strategies. However, the total value of framework agreements increased dramatically from 79.182.130 RON in 2021 to 460.463.433 RON in 2023, suggesting a strategic use for large-scale and economically important contracts. This indicates an increased preference for public procurement contracts over framework agreements, or this preference may be influenced by other factors, such as legislative changes or public procurement priorities.

Conclusions

As previously mentioned, city halls play an important role in various stages of the emergency management process. Good collaboration between the Emergency Inspectorates and the City Halls in their intervention

area contributes to a better capacity to intervene in such situations, and localities that have created a Voluntary Emergency Service and have a person responsible for this service are better prepared to deal with unforeseen events. In addition, localities that have a mayor concerned with the good administration of the locality and that have invested in the infrastructure for the prevention of natural disasters can better deal with the consequences of emergency situations.

The research showed that collaboration with other institutions that have responsibilities in the management process of these situations is equally important, being in line with the recommendations for using collaborative management in emergency situations. However, even though respondents consider it important for City Halls to identify the risks to which a locality is exposed and to develop intervention plans for such situations, fewer City Halls invest in infrastructure to prevent these situations. Given the unpredictable nature of many events, community preparation and the adoption of prevention measures are very important to mitigate the impact of these events. Community preparation is achieved through simulations and training of the population, as well as by educating the population to react to various warnings regarding the dangers that exist.

Research on emergency preparedness of local communities provides a solid framework that can be extended and applied in many practical and academic directions. Among the most relevant applications and extensions are: the development of customised guidelines and protocols, pilot projects in vulnerable communities, digital alert and education platforms, integration into sustainable development policies. At the same time the results can contribute to the development of local and regional strategies that include the community resilience dimension as a pillar of sustainable development and climate change adaptation.

Public institutions must coordinate their actions to prevent and prepare communities for more and more unexpected events, but at the same time, they should be flexible in finding solutions to deal with these events. The intervention capacity of public institutions and their legitimacy must be strengthened. Equally important is the strengthening of citizens' trust in public institutions in the context of crisis situations (Radu, 2021; Christensen, Lægreid and Rykkja, 2016), when they have to comply with less popular decisions.

Preparing local communities for emergencies must become a strategic priority, integrated into sustainable development policies, emphasising prevention, solidarity and shared responsibility.

References

- Ansell, C., Sørensen, E. and Torfing, J., 2023. Public administration and politics meet turbulence: The search for robust governance responses. *Public Administration*, [online] 101(1), pp.3–22. <https://doi.org/10.1111/padm.12874>.
- Beunen, R., Patterson, J. and Van Assche, K., 2017. Governing for resilience: the role of institutional work. *Current Opinion in Environmental Sustainability*, [online] 28, pp.10–16. <https://doi.org/10.1016/j.cosust.2017.04.010>.
- Burlacu, S., 2019. Transparency and Visibility in The Administrative Process at Local Level and The Decision-Making Process in Romania, 34th International-Business-Information-Management-Association (IBIMA) Conference, ISBN978-0-9998551-3-3 Page1312-1323.
- Călin, A.M., Burlacu, S., Mocanu, V. and Popescu, M.L., 2022. Digital Public Management Governance. [online] <https://doi.org/10.24818/BASIQ/2022/08/012>.
- Chang Seng, D.S., 2013. Tsunami resilience: Multi-level institutional arrangements, architectures and system of governance for disaster risk preparedness in Indonesia. *Environmental Science & Policy*, [online] 29, pp.57–70. <https://doi.org/10.1016/j.envsci.2012.12.009>.
- Christensen, T., Lægreid, P. and Rykkja, L.H., 2016. Organizing for Crisis Management: Building Governance Capacity and Legitimacy. *Public Administration Review*, [online] 76(6), pp.887–897. <https://doi.org/10.1111/puar.12558>.
- Cimellaro, G.P., 2016. *Urban Resilience for Emergency Response and Recovery*. Geotechnical, Geological and Earthquake Engineering. [online] Cham: Springer International Publishing. <https://doi.org/10.1007/978-3-319-30656-8>.
- Cram, B. and Garcia-Zanor, J.C., 2016. Enhancing Community And Economic Development Postdisaster Through The Increased Resilience Of Women. In: *Cities and Disasters*. Routledge.
- Duda, P.I., Kelman, I. and Glick, N., 2020. Informal Disaster Governance. *Politics and Governance*, [online] 8(4), pp.375–385. <https://doi.org/10.17645/pag.v8i4.3077>.

- Farazmand, A., 2007. Learning from the Katrina Crisis: A Global and International Perspective with Implications for Future Crisis Management. *Public Administration Review*, [online] 67(s1), pp.149–159. <https://doi.org/10.1111/j.1540-6210.2007.00824.x>.
- Henstra, D., 2010. Evaluating Local Government Emergency Management Programs: What Framework Should Public Managers Adopt? *Public Administration Review*, [online] 70(2), pp.236–246. <https://doi.org/10.1111/j.1540-6210.2010.02130.x>.
- Kapucu, N., Arslan, T. and Demiroz, F., 2010. Collaborative emergency management and national emergency management network. *Disaster Prevention and Management: An International Journal*, [online] 19(4), pp.452–468. <https://doi.org/10.1108/09653561011070376>.
- Kapucu, N., Arslan, T., Demiroz, F., 2010. Collaborative Emergency Management and National Emergency Management Network, *Disaster Prevention and Management*, 19(4), pp.452-468.
- Krogh, A.H. and Lo, C., 2023. Robust emergency management: The role of institutional trust in organized volunteers. *Public Administration*, [online] 101(1), pp.142–157. <https://doi.org/10.1111/padm.12894>.
- Ladaru, R.G., Burlacu, S., Guțu, C. and Platagea Gombos, S., 2022. Human resources management - labor crisis. In: *30 Years of Economic Reforms in the Republic of Moldova: Economic Progress via Innovation and Competitiveness, Vol II*. [online] Academy of Economic Studies of Moldova. pp.187–194. <https://doi.org/10.53486/9789975155649.29>.
- Masterson, J.H., Peacock, W.G., Van Zandt, S.S., Grover, H., Schwarz, L.F. and Cooper, J.T., 2014. *Planning for Community Resilience: A Handbook for Reducing Vulnerability to Disasters*. [online] Washington, DC: Island Press/Center for Resource Economics. <https://doi.org/10.5822/978-1-61091-586-1>.
- McGuire, M. and Silvia, C., 2010. The Effect of Problem Severity, Managerial and Organizational Capacity, and Agency Structure on Intergovernmental Collaboration: Evidence from Local Emergency Management. *Public Administration Review*, [online] 70(2), pp.279–288. <https://doi.org/10.1111/j.1540-6210.2010.02134.x>.
- Melo Zurita, M.D.L., Cook, B., Thomsen, D.C., Munro, P.G., Smith, T.F. and Gallina, J., 2018. Living with disasters: social capital for disaster governance. *Disasters*, [online] 42(3), pp.571–589. <https://doi.org/10.1111/disa.12257>.
- Rădulescu, C.-V., Mănescu, C.-O., Popescu, M.-L. and Burlacu, S., 2023. Sustainable Development in Public Administration: Research, Practice, and Education. *European Journal of Sustainable Development*, [online] 12(4), p.27. <https://doi.org/10.14207/ejsd.2023.v12n4p27>.