



## Emergency preparedness in Romania: Dynamics, shortcomings and policy proposals



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### ABSTRACT

Romanians were exposed in the last century to a range of natural or man-made disasters, mainly earthquakes and floods. The transition of the country from a Communist authoritarian pattern of emergency preparedness to a democratically civilian emergency system challenges the assessment of emergency preparedness and adds more complexity in designing a better and efficient system. The aim of this paper is to briefly describe the risks and institutions dealing with disasters, to assess the emergency preparedness, the uses of Knowledge Management Systems and Foresight Methodology approaches and to discover the shortcomings of the Romanian Emergency System. The empirical study designed as a reality check focuses on the perception of the local leaders of the emergency system regarding the most probable risks, and the uses and utility of long term strategic planning and foresight methodologies, using the Delphi technique. Lessons drawn from the Romanian transition could provide an interesting case study for other emerging democracies.

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## 1. Introduction

In our global society, the emergency community faces a complex environment and decreasing predictability. However, the grand challenges of globalization also brought about new opportunities that can help the emergency community to tackle risks if one looks forward, anticipates and builds scenarios to cope with them. Among the opportunities, Knowledge Management Systems could help the process of crisis or disaster management.

Romania is a country that was exposed to a range of natural disasters in the last century, particularly to earthquakes and floods, causing economic distress and civilian casualties across the country. The transformation of the Romanian Emergency System and the use of strategic planning and foresight

methodologies in Emergency Preparedness (EP) is a very challenging task for a couple of reasons. Firstly, because the Romanian strategic culture has been a rather reactive and passive one; the two World Wars, the "Revolution" of 1989 and natural catastrophes all took decision-makers by surprise. So it is interesting to see how the foresight approach as well as Information and Communication Technology (ICT) used at the global level as state of the art techniques could improve the Romanian strategic culture.

Secondly, the transition to democracy and the conditionality of the Western institutions required an institutional transformation towards decentralized decision-making, including the transformation of the defense and emergency systems (ES). However, there has been no assessment of the overall functionality of the emergency system after two decades of transition or an evaluation of how risk analysis, mitigation and response are correlated.

Therefore, the main goals of our study are to briefly describe the most important risks in Romania and institutions for dealing with them; to assess its emergency preparedness and discover the shortcomings of the Romanian Emergency System

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(RES)<sup>1</sup> through a Delphi study as well as a literature review, and to offer some policy recommendations.

The first part of the present paper briefly presents the grand challenges faced by the Romanian ES, one regarding the institutional transformations undergone by the emergency system and the other regarding the use of a Romanian Knowledge Management System and the foresight process. The second part of the paper does a reality check by analyzing the process of strategic planning based on a Delphi study conducted with experts and the local leaders of the emergency system. The extended Conclusions will not only summarize the findings but also discuss the shortcomings of the Romanian Emergency Preparedness system and make policy proposals for the future improvement of Emergency Management in Romania.

## 2. Grand challenges for the Romanian Emergency System (RES)

In the recent literature, Grand Challenges are considered to be current and future events or states of affairs expected to have a major impact on society and to require wide-ranging, ambitious but feasible structural transformations.<sup>2</sup> For the European Union, the concept of a Grand Challenge provided common objectives in the recent formulation of policy instruments at the European level, such as the new Horizon 2020 Framework Program. Starting from the European approach, we define Grand Challenges in a looser way as the most important trends and problems faced by the system. Based on our knowledge and on the literature on post-communist transition, the two most important grand challenges faced by the Romanian Emergency System have been: 1) transition of the Emergency System from an authoritarian regime to democratic one and 2) the governance of risk in the knowledge society. This part of the paper will describe and explain how the RES adapted to and confronted these two grand challenges.

### 2.1. Transition of the Romanian Emergency System (RES)

During the Communist regime, the emergency system was highly centralized and militarized, mainly addressing the social catastrophes generated by war and – secondarily – natural or man-made disasters. In the last two decades, a new system has been built, based on civilian protection rules and civilian emergency planning. A World Bank Report for the project on Hazard and Risk Mitigation assessed that the institutions assigned to handle disaster management and response lacked both awareness and the necessary legislative, technical and financial capacities to respond effectively. In

order to check the harsh statement of the Report, it is necessary to have a brief presentation of the characteristics of extreme events and a presentation of the transition process itself.

Another report generated by CRED International Disaster Database for years 1974–2006 shows that natural hazards – particularly earthquake, floods and extreme temperatures – have taken a toll of 1940 lives in Romania [2]. Between 1992 and 2001 there were floods every year in some parts of the country resulting in civilian casualties (123 people died). Total material losses of US\$528.9 million were documented between 1997 and 2001. In 1999, the losses were estimated at US\$132 million and in 2000 at US\$98.3 million.

The 1977 earthquake, measuring 7.2 on the Richter scale, resulted in economic losses exceeding US\$2 billion, while the July 1991 flood caused damages estimated at \$0.5 billion, affecting a large area of about 1400 km<sup>2</sup>, and damaged more than 12,000 buildings, 990 km of roads, 14 km of railroads, and 150 bridges.

One of the lessons learned was the need for a special professional civil emergency body addressing disasters and natural catastrophes both on a national and a local level. The solution was to establish the norms and missions for a new structure, one year after the 1977 earthquake. Therefore, the “Law no.2/1978 regarding civilian defense” set up the norms, rules and institutions both on a national and a local level to take measures in the case of natural and man-made disasters within the system of national defense. It should be said that the unexpected earthquake of 1977 triggered a long lasting process of organizing a civilian defense system designed to better prepare the citizens and the society in the prevention or management of disasters. The Ministry of Defense was still in charge of coordinating the protection of the population, but a special Commandment of Civilian Defense was set up for the regional and local civilian management of disasters, consisting of people aged 20–60 and not enrolled in military defense.

The “revolution of 1989” disrupted and dismantled the authoritarian defense sector, including the civilian emergency system. A new Law of civilian protection was set up in 1996 to organize the civil emergency system as a Department within the Ministry of Interior on a local level as well. It is interesting to point out that the domestic crisis of 1999 (the social unrest of the coal miners that marched about 200 km to Bucharest in order to violently overthrow the Government) surprised the Romanian Government which issued an overnight “Emergency Ordinance no.1/1999 on declaring the state of siege and emergency” on the Romanian territory and created a new institution, the National System for the Management of Emergency Situations.

The NATO Prague Summit (Prague, 2002), where Romania was invited to join the organization, was a turning point for transformation of national defense and civilian emergency systems. That invitation allowed the decision-makers to pursue an accelerated path of reform. The 9/11 events in the US, as well as the new status of Romania as a full member of NATO (2004) and the EU (2007) brought about a new approach – the systematic transformation of the security sector. Thus, several bills of law, meant to make sense of and to reform the whole security sector were controversial and highly debated. The National Security Strategy, issued in April 2006, introduced not only a pro-active approach, a new role for

<sup>1</sup> In this paper the term “system” is used in two different circumstances. The *Romanian Emergency System* (RES) refers to a holistic system, consisting of elements/institutions, boundary, input, output, process, policy, hierarchy, goal-directedness, and information. We talk later in this paper about *Knowledge Management Systems* in terms of Alavi and Leidner as the “Information Technology based systems developed to support and enhance the organizational process of knowledge creation, storage, transfer and application.” [1].

<sup>2</sup> Originally, “Grand Challenges” referred to the US policy terms set as goals in the late 1980s for funding high-performance computing and communications research, in part in response to the Japanese 5th Generation of 10-year project. More recently, the European Union defined grand challenges more loosely in the Lund Declaration, issued in 2009.

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