

## COMMUNICATION, PREPARATION AND ATTITUDE TOWARDS NATURAL HAZARDS IN ALBANIA

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**Abstract:**The risk of natural disasters in Albania has been growing, by resulting in many economic and social challenges. It is important to study and analyze how the risk management information and communication process is carried out by the responsible institutions on one side, and how the risk of natural disasters is perceived by the individuals on the other side. This study aims to give an overview of the socio-economic, legal and cultural context of information, communication, and attitude towards natural hazards in Albania, focusing on an informative study related with risk information, communication, and preparedness. To give some conclusions related with Albanians risk preparedness, communication and information, it was developed a questionnaire, using semi-structured interviews with inhabitants of four Albanian areas, (Durrës, Shkodra, Lushnja and Fier) which are mainly at risk from earthquakes, especially after the earthquake with severe consequences that affected Albania in 2019. The disaster risk communication is not performed in the right way regarding the inhabitants of these areas, bringing great consequences and problems in their lives. The gap in communication, in warning, and in all the processes related to the preparation of the population for the natural dangers that threaten them, comes from a set of causes connected to one another directly or indirectly; this is definitely related to the stage of development of our country, to the functioning and integration of institutions. The understanding of disaster attitude and of its affecting factors is a major step towards the right development of public strategies.

**Key words:** risk preparedness, risk communication, risk perception, earthquake,

### 1. INTRODUCTION

Natural disasters cannot be avoided, but their economic and social effects can be mitigated through an effective process of preparedness and information. Undoubtedly, the reduction of risk from natural disasters is a fundamental component of social and economic development, especially to ensure the sustainability of development in the future.

Natural disasters caused worldwide damage of 270 billion dollars, with more than 101.8 million people affected, these figures estimated only for the year 2021 [1]. Highly exposed low and middle-income countries, in particular, bear a large share of the human and economic burden caused from natural disasters.

On a global scale Albania is ranked as one of the countries with the greatest economic consequences caused by natural disasters. Its annual average losses are about 2.5% of its GDP [24].

The risk of natural disasters has been growing, turning Albania into the most vulnerable country in the European continent resulting in many economic and social challenges. According to the (Global Climate Risk Index Report 2021), [4] Albania ranks 125th, among the most affected countries by extreme weather conditions worldwide, for the period 2000-2019. It is important to study and analyze how the risk management information and communication process is carried out by the responsible institutions. Public authorities have to compile pertinent planning, prepare strategies, and communicate the relevant information effectively to residents and communities as a whole. The more disaster management requires active involvement of residents, the more vital risk information/communication/education become necessary [16].

The article is organized as follows: The literature review provides a summary on studies on disaster risk communication and risk preparedness. Further on it is presented, the socio-economic, legal and cultural context of information, communication, preparation and attitude towards natural hazards in Albania. The methodology and results are elaborated in the third part of the paper and followed by recommendations on the further needs for the development of communication strategies.

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## 2. A LITERATURE REVIEW ON NATURAL DISASTERS RISK COMMUNICATION AND RISK PREPAREDNESS

Risk communication is a social process through which people are informed about risks. They can participate in decision-making about risk issues in an informed way as their behavior is influenced by information. Such activities are part of almost all emergency management efforts. Effective risk communication, results in a sound understanding and recognition of the perceptions and attitudes that individuals have towards risk (including the risk of natural disasters)[16].

Any population exposed to natural hazards such as earthquakes, hurricanes, fires or floods; or technological ones, such as explosions, chemical spills, train crashes and so on –requires to be optimally informed about risk characteristics, preventive measures and appropriate behaviors during emergencies. Authorities must draw up relevant planning, prepare coping strategies and communicate information effectively to residents, people in their workplaces and communities as a whole [2]. Better management of natural disasters requires the active involvement of residents, informing and educating them about the risks they face. Furthermore, in the case of controversial sources of risk (for example, the setting of an airport or a waste incineration plant), It is necessary to ensure public discussion, stakeholders' participation and possibly joint conflict resolution. All these situations involve social processes which are usually included in the term "risk communication" and the exchange of risk information between stakeholders (individuals, groups, institutions) is the essence of communication[9,16]. Risk communication is conceived as a necessary link between risk perception and its management.

In their article "Risk Assessment", the well-known risk perception experts Paul Slovic, Baruch Fischhoff and Sarah Lichtenstein state that "People respond to the risks they perceive" [19]. The ways in which risk is presented or reported greatly influence the way people perceive risk. Public behavior and consequently the dynamics of disaster management are profoundly influenced by information communicated by authorities (governments, experts, etc.) [3]. Furthermore, authors Siegrist&Cvetkovich, 2000; Viklund, 2003; Welch et al., 2005 [22, 23,25] have confirmed that increasing trust in governing authorities leads to a lower level of individuals' perception of risk regarding the complexity and uncertainty of a situation and enables individuals to adapt to a risk faced and to respond to risk more rationally.

Siegrist, Cvetkovich, & Gutscher, (2001), [9] working with different risks, mainly natural ones were able to test the hypothesis that the more individuals had knowledge and information about the possibilities and risks of a natural disaster, the less they believed in the information that was given to them by the state authorities. So the more people in a given area had information about a risk, the more they trusted their own judgment rather than the advice of authorities. So, the factor influencing the perception of risk was the self-confidence of individuals. Other studies have seen the trust factor closely related to the individual's concept of the terms "home", "society", "nature". According to Harries, (2008)[6] the more the individual has trust in society and the state as an institution, the less he/she takes measures against natural hazards.

Emotions, stigma, feeling, risk information transmitted from media are significant predictors of perceived risk. We judge risks as higher when we feel negative about an activity, but we judge risks as lower when we feel positive about it. Moreover, the information presented in a positive manner, without being alarmed and if accompanied by elements that can reduce anxiety will affect the reduction of risk perception by individuals. Whereas under the conditions when information is presented in a negative manner, with stigma, elements that reduce personal beliefs will affect the increase of risk perception by amplifying the amount of risk by individuals [21].

Education institutions play their role in this relationship in understanding the educational "messages" that future generations will need to adopt to form their own safety culture. A great deal of literature has recognized the role of higher education institutions in developing and supplying disaster knowledge, as well as supporting policy at all scales [7]. This happens in all the countries coping with disasters, but especially developing ones, as there the role of HEIs is particularly necessary to promote public involvement in reaching national development goals [8].

### **3. THE SOCIO-ECONOMIC, LEGAL AND CULTURAL CONTEXT OF INFORMATION, COMMUNICATION, PREPARATION AND ATTITUDE TOWARDS NATURAL HAZARDS IN ALBANIA**

The perception or attitude that individuals have towards the risk of disasters is closely related to the information, assistance, and management of emergency situations by government institutions. There are two articles in the Constitution of Albania, respectively articles 170 and 174, which refer to emergency situations and disasters, as well as the measures to be taken in those cases. In addition, the Law "On Civil Protection" - Law 45 from 2019, states the measures to prevent, prepare, to cope with disasters and to recover, through an integrated and efficient system of civil protection in the Republic of Albania.

Ministries and central institutions are "responsible" for organizing and maintaining monitoring, early warning, notification and alarm systems in the field of their activity. At the local level, the prefecture of the district and the municipalities ensure the functioning of the system of monitoring, early warning, notification and alarm in the territory of the district and consequently inform the endangered community, the prefectures of neighboring districts, as well as the National Agency of Civil Protection. All the institutions provided in the law immediately notify and report to the National Agency of Civil Protection regarding occurrences and events, according to their area of responsibility, evidenced or likely to appear in a short period of time, which constitute or may turn into risks for the community.

Awareness of risks and preparation for monitoring the situation are the first steps for the preparedness and protection phase and are an obligation of governmental institutions, structures and physical and legal entities. These steps are accomplished through continuous activities, which also include public awareness and education campaigns. Designing and publishing leaflets, posters, hazard maps and other educational materials, providing information through the media, organizing public meetings and activities in schools and non-governmental organizations are some of the ways that increase public and institutional awareness of specific risks and encourage participation and communication in the emergency response phase [2].

The participation of civil society in response to emergencies is a step forward defined in the current law. As a result, the Albanian Red Cross has several responsibilities such as capacity assessment, as well as participation in disaster planning at the community level. There are other organizations such as the Albanian Center for Population and Development which is collaborating with the Ministry of Health and Social Protection of Albania to contribute to emergency activities.

In general, for a better management of civil emergencies, the Albanian Government should approve the National Disaster Risk Reduction Strategy and the Local Disaster Risk Reduction Strategies as soon as possible, and also strengthen inter-institutional cooperation and relevant capacities. In the wider extent, the government should enable the management of the whole spectrum of disasters (natural or man-made). In this aspect, wise solutions regarding "merging and exchanging capacities" with other neighboring countries or beyond, will result in increased RESEAL project has been developed as a comprehensive response to the needs for strengthening the DRM systems at all levels in the country. As such, in its entirety, the project contains a multi-level set of priorities around three components: 1) strengthening the DRR framework and capacities at the central level, 2) building DRR local level knowledge, planning and organizational capacities for prevention and response to disasters, and 3) supporting critical needs for DRR infrastructure capacities and significant cost savings. Resilience strengthening in Albania (RESEAL), is a project covered by UNDP, that supports the efforts of the Government of Albania to improve the disaster risk management (DRM) system in the country.

In Albania, population's behavior has often contributed to increasing the negative effects of disasters in the country. This is clearly evidenced in the fact of uncontrolled and chaotic urbanization that occurred in the last two decades. Another challenge is the dominance of the "command mentality", instead of the mentality of initiative, openness, coordination and cooperation. There is also a lack of a solid culture of volunteering. All these cultural features are mainly explained by the influence of the "centralized state approach" for a long time. Currently, among civil society organizations, the Albanian Red Cross is the only voluntary organization in the country with real capacities and structures that have a significant impact in cases of civil emergencies. Because of a "conceptual gap", which in Albania is considered as "risk assessment" is generally "risk tabulation" that does not include "a clear analysis, with different disaster scenarios and exposure levels of the population and assets to each scenario"[2].

"Early warning" is conceived as warning against an imminent accident or disaster. Consequently, there is a lack of a clear system for long-term monitoring of disasters to identify emerging trends and provide early information to national authorities, to be reflected in the various development plans of the country. There is also a need for a database that combines all the partial data related to regional disaster risks, impact and losses from them, which is regularly updated by the relevant authority. A new culture of security and disaster resilience must be rooted not only in all levels of institutions, but also in the Albanian population as a whole [2].

On the other hand, factors such as chaotic urbanization (generally ignorance of seismic codes and dangerous areas), lack of infrastructure maintenance, especially drainage systems, etc., influence the increase in the frequency and consequences of disasters. In addition, the lack of culture and public/private insurance schemes from natural disasters further worsen the negative effect of disasters as well as the possibility and time for recovery[2].

Also, in the Albanian population exists "the expectation that in case of natural disaster damage to houses, property, living things or agricultural products, the Government will compensate all damages". In fact, in the Albanian legislation it is stated that the possible compensation is no more than 40% of the losses. This clearly reflects that lack of information campaigns which affects slow process of awareness of the population on these issues. Instead of referring to the laws and formal sources of information about relevant compensation, they just address friends and relatives who also lack formal information [2].

Education system is much affected by the challenges imposed by disasters. Disasters affect both demand and supply side of education. Despite being threatened by disaster risk, the education sector involves many adaptive capacities. More educated citizens are believed to be better prepared to face a disaster event [17]. In addition, disaster-related education can further enhance personal preparedness, contributing to the mitigation of disaster risks [14]. In the pre-university public education program, the subjects of natural disasters and preparation for them are not addressed at the necessary levels. Topics related to environmental issues, climate and natural phenomena are touched upon in the subjects "Knowledge on Nature", "Geography", "Extracurricular Activities", "Earth Science", "Citizenship" and "Physics". There are no specific subjects that can be aimed at preparing pupils and students for natural disasters. Seminars or open classes are held having informational purposes or extracurricular activities are conducted that promote awareness of natural disaster issues. In Albania, "disaster education" is not covered in a specific subject. Disaster education in Albania includes discovering the mechanisms of volcanic eruptions and earthquakes, weather, etc., lectures on "Earth Science"; risk reduction during natural disasters, the role of the police, the fire service, community activities for disaster risk reduction, etc.

The role of higher education institutions in developing and supplying disaster knowledge, as well as supporting policy at all scales is covered in the international literature [7]. This is evident in countries coping with disasters, but especially developed ones, as there the role of HEIs is particularly necessary to promote public involvement in reaching national development goals [8]. Few efforts to implement modernized sustainability education in Albania are observed. In 2016, an EU-funded project entitled "Knowledge for a Resilient Society" (K-Force), contributed to building a sustainable education in the field of Disaster Risk Management and Fire Safety Engineering in the Balkans Western. In 2018, six new programs in the field of Disaster Risk Management were implemented in Partner Universities in the Balkan countries (Serbia, Bosnia and Herzegovina and Albania). The project was developed through the cooperation of EU academic partners.

Programs offered in Albania:

- Master of Science in Risk Management: This Master's program aims to combine three approaches to risk management: Enterprise risk management, Financial risk management; and Natural Disaster Risk Management. (Faculty of Economics, University of Tirana)
- Professional Master in Disaster Risk Management and Fire Safety in Civil Engineering: The goals of the program are to further train professionals in disaster risk management and fire safety in civil engineering who are able to work effectively in teams in a wide range. (Epoka University).

Although the role of education in addressing sustainability challenges is being increasingly emphasized, the ability of education to contribute to adaptation and mitigation measures is yet a way to go, especially in the

Balkan region. Western Balkan countries share a similar political context, coming from a communist past, which, to various extents, continues to affect their higher education systems. The implementation of Sustainable Development Education in Balkan countries is still a way to go. With the exception of Greece, few countries have operationalised the inclusion of topics related to disaster risk management, climate change adaptation, energy markets, sustainability governance, etc. Cultural inflexibility, a traditional education system, and a generally restricted labour market are barriers for implementing such requirements in higher education[5].

#### 4. METHODOLOGY OF THE STUDY

This study is an interplay between explanatory and exploratory research. It aims to shed light on the process of information, communication and risk-taking, using both qualitative and quantitative data analysis. The study is focused on the presentation of the socio-economic, legal and cultural context of information, communication, and attitude towards natural hazards in Albania, focusing on an informative study related with risk information, communication, and preparedness. Observation and semi-structured interviews were used in the process of collecting primary data, and public reports review was used to collect secondary data, and also to triangulate the findings in order to present the framework and the context of information, communication, and attitude towards natural hazards in Albania. A semi-structured questionnaire was developed, to which 245 respondents answered, out of which 129 were women and 115 were men. The areas where the study is focused are: Tirana, Durrës, Shkodra, Lushnja and Fier. The semi-structured interviews were conducted in the areas that are mainly at risk from earthquakes, especially after the earthquake with severe consequences that affected Albania in 2019.

The samples were diversified in terms of gender and different age groups from 20 to 75 years old. Questions included personal attributes, sources of information about natural disaster damage and recovery/reconstruction phases in the respective study site, and types of experience.

The questionnaire aims to find the opinion and perception of the respondents on a certain range of questions included in the questionnaire through personal contact between the interviewer and the respondent.

The research method related to the purposes of this research was the inductive one. Therefore, data were collected from the analysis of the results of the developed questionnaire.

#### 5. PREPAREDNESS, PLANNING AND DISASTER RISK COMMUNICATION IN CASE STUDY AREAS

Some important findings were produced in relation to the level of risk communication and preparedness of the population case of disaster. These findings were mostly produced from the analysis of qualitative data.

Below is presented a descriptive analysis of the data generated from some of the questionnaire questions related to information, communication, preparedness and risk perception of natural disasters.

Referring the question *“Did you consider the possible occurrence of a natural hazard when you decided to live in this area?”*, 68 percent answered No, and 32 percent answered Yes, resulting that the majority of the interviewees present a tolerant attitude towards the risk of natural disasters, not taking into account possible risky events.

Referring the question *“Is your family insured for various damages (property/life insurance)?”* From this question it resulted that only 8% of the interviewees have a property or life insurance and 92% say that they do not have it. It is noted that 7% of the insured have a university degree and 1% are without a university degree. This low number reflects that individuals mainly think that insurance companies are too expensive. It is observed that people who have an insurance also belong to high average monthly income, and they also have extensive information about insurance. The results also show that people who have insurance have small children or people with health problems in

their families. As for the part of the insured without a university degree, they are individuals who have been previously affected by a catastrophic event and experience has taught them that an insurance is necessary. However, this category belongs to a class with a relatively low monthly income and also with a lack of information.

Referring to the question *"I feel concern about the few measures taken by the administrative organizations to mitigate the damage from the floods"* 86% of those interviewed are Pro, implying that individuals do not feel safe and think that governments should take stronger measures to cope with catastrophic events. They also think that the damage from NC can be minimized if everyone takes preventive measures.

To the question *"If the responsible units hold seminars or conduct disaster prevention exercises, I want to participate"* 62% said they want to participate. 50% of them are under the age of 50, of which 44% have a university degree. From this question we understand that the interest is higher among young and average age individuals, mostly educated ones. While a small part of those interested without a university education express interest because they have been affected by catastrophic events before.

Another question was: *"Do you know what to do to protect yourself during an earthquake?"* About 78% of the interviewees, who mainly belong to the areas of Tirana and Durrës, answered yes to this question. This high percentage comes as a result of the 2019 earthquake, which seems to have increased the awareness of those affected. It is noted that the people who answered that *"They do not know how to protect themselves"*, 22%, belong to less seismic areas, that is, they have not had catastrophic experiences from the earthquake.

Related to the question *"Do you know where the urban emergency shelters are?"* To the above question, only 11% of the interviewees answered that they know where the emergency urban shelters are. This shows that people are very little informed about the actions to be taken in case of disasters. This is due to the lack of competent bodies for informing and preparing the population in case of emergencies, but also due to the non-inclusion in schools or communities of preparatory programs in case of disasters. The part of individuals who know where the urban emergency shelters are, mainly belong to the population affected by the 2019 earthquake (Tirana and Durrës), so they have previous experience.

## 6. CONCLUSION

This study is focused on the main points: disaster risk information, communication, preparedness and risk perception. The disaster risk communication is not carried out in the right way for the inhabitants of these areas, bringing great consequences and problems in their lives. The understanding of disaster attitude and of the factors affecting it is a major step to the right development of public strategies. The gap in communication, in warning, and in all the processes related to the preparation of the population for the natural dangers that threaten them, comes from a set of causes connected to each other directly or indirectly; this is definitely related to the stage of development of our country, to the functioning and integration of institutions. It is important to raise the necessary capacities of the relevant institutions to make the communication process more efficient, to create the right mechanisms so that the communication goes on the straightest and shortest path to get as close as possible to the endangered population, and to help them as much as possible in their fight against what the power of nature, or the power of man can result in. This is another issue to be discussed.

The risk perception among the interviewed residents appears to be related to many factors, their values and beliefs. Some of them are emotionally attached to their property, on the one hand, and therefore this conditions them not to leave it. On the other hand, there are individuals who do not

have enough income to leave it. So, there is a paradox between those who can, but don't want, and those who want, but can't.

It remains important that the government should invest in disaster risk reduction measures, such as early warning systems or evacuation centers. It is indispensable to include school programs in the entire Albanian educational system regarding preparedness for natural disasters. Also, education about natural disasters should not be limited to schools. Families and local communities can influence overall mitigation, developing awareness of natural disasters by using their knowledge and experience gained during the elimination of the consequences of previous disasters.

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