

The role of public - private partnership in preventing and managing disaster

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Abstract: The importance of experts from public and private sector participation in the process of elaboration and implementation of protective measures should be understood through the need to ensure awareness by all stakeholders of tasks and duties assigned to them, during and after solving emergency situations arising from different vulnerabilities or risk factors. In this context, to the partnership with non-governmental organizations is assigned a support function.

Keywords: partnership, prevention, risk sharing, disaster reduction

1. Introduction

The current context and events of the last decade show an increase in frequency of extreme risk incidence. For the period „1980 - 2000 it is estimated that 75% of the world population has been affected at least once of a disaster” (Eliza Teodorescu, Lavinia Andrei, Alexandru Manafu, Anca Ciucă, Cristina Butnariu)¹. In Romania, the same increasing frequency of disasters has generated many debates and consequently alignment to the

global standards and regulations in force in the field of prevention and protection in the context of natural hazards and technological accidents. Actual increase in the frequency of catastrophic natural events founded in pre-

¹Teodorescu, Eliza; Andrei, Lavinia; Manafu, Alexandru ; Ciucă, Anca; Butnariu, Cristina, Managementul riscului de dezastru. Ghid de lucru pentru ONG-urile de mediu în prevenirea dezastrelor, p. 5, http://alma-ro.ngo.ro/doc/brosura_management_dezastre.pdf, accesat: 23 octombrie 2010

sent, and their overall costs can be attributed to several factors:

- the cyclicity of various natural hazards;
- global population growth, its concentration in large conurbations;
- the increase of the vulnerability in human communities;
- neglect of planning, insufficient preventive measures and activities;
- the increased public awareness and the request from a public increasingly concerned about his safety and security.

The author of „Disaster and the Sequence-Pattern Concept of Social Change, from The American Journal of Sociology“ (Lowell Juilliard Carr)² says that we tend to see the development as a process to encourage positive social change and social change accelerates disasters catastrophic - in order to bring the whole debate in the field of social change, itself a part of the human factor.

Along with natural characteristics that determine the degree of vulnerability, man creates or aggravates vulnerability through many ways: settling, for economic reasons, in vulnerable areas, increased urbanization and industrialization in the sites at risk; dependency, increasingly high, of the urban to different technical networks, which are susceptible to be disturbed, either naturally or anthropogenic (such as destruction of water pipes, heating, electrical and telecommunications cables, etc.); increasing mobilization of underground space in the service of urbanization (metro lines, tunnels, underground parkinguri) broadens the spectrum vulnerability in a worrying manner.

²Carr, Lowell Juilliard, Disaster and the Sequence-Pattern Concept of Social Change from The American Journal of Sociology, Vol. 38, No. 2, 1932

At the state level, there is a pressing concern for policy makers to create an optimum environment at national regulatory level and placing under control of these phenomena, to mitigate their effects. In this context, to the partnerships with non-governmental organizations is assigned a function designed to support tasks that may have some NGOs in collaboration with ministries and central agencies.

2. Literature review

The current state of research is based on two models of public - private partnerships:

- The role of corporate social responsibility issues in disaster reduction
- The French model of CAT NAT

An important contribution to the model public - private partnerships for prevention and management of extreme situations is remarked in the paper „Corporate Social Responsibility and Disaster Reduction. A Global Overview,, (John Twigg)³. In the content of this work, the author points out that disasters caused by natural hazards are a threat to sustainable development. Thus, a study conducted between 1988 and 1997 by the International Federation of Red Cross shows that natural hazards cause victims of 56,000 people annually. In the same period, natural hazards affected directly each year, on average 171 million people (caused property damage, crops and local infrastructure), while indirect damage, such as increased prices or increased unemployment, are incalculable. The average annual economic losses caused by natural hazards in the period 1988 - 1997

³John Twigg, Corporate Social Responsibility and Disaster Reduction. A Global Overview, Benfield Greig Hazard Research Center, University College London

were 62 billion dollars, of which 26 billion were recorded in Europe and U.S., and 34 billion dollars - in Asia (according to International Federation Red Cross, 1999). Thus, the risks associated with natural hazards and their reduction remains a major problem in development plans, political commitment is relatively low, and actions to prevent disaster are not settled at the individual level but at the collective one on the long term. In these circumstances, the private sector plays an important role in the process of reducing the consequences of natural disasters through campaigns of social responsibility (CSR)⁴.

First calls for greater private sector involvement in disaster reduction dates back for many years. For example, Berke and Wenger, in the study on measures for disaster recovery from Hurricane Hugo, point out that for the prevention of disasters in public sector programs are recommended, to include private sector actors. In 1991, Pan American Health Organization has proposed private sector to consider not only their own safety, but integrated programs including disaster prevention for the surrounding communities.

In the content of the paper (Corporate Social Responsibility and Disaster Reduction. A Global Overview "(John Twigg), non-profit organizations occupy an important place among the forms of intervention such as corporate social responsibility.

The author noted that the nonprofit sector has advantages over the direct involvement of corporate social responsibility campaigns:

- NGOs are focused on objectives and are not concerned of commercial pressures;
- NGOs are stable, unlike companies which can change the direction of interest at any time, depending on resources and benefits;

⁴Corporate Social Responsibility

- NGOs are an opportunity for companies to work collectively, they will generate additional resources for initiatives mitigation of the risks; they are also a support platform for economic actors involved in CSR activities;

- NGOs gained credibility from both companies, since they come from the private sector and the public and civil society, because interest is not in generating profit, but in carrying out tasks for which they were created;

Other types of corporate social responsibility to prevent disasters are found as: sponsorship, technical support, and fundraising. These three forms are interconnected because they require the generation of income and resources to carry out the proposed actions. The advantages of these forms are directly related to resources. Thus, the generation of resources leading to greater impact of prevention or mitigation of natural disasters risks, though, with the consumption of resources, the activity of these forms is almost inexistent. Therefore, it can highlight the great big disadvantage: corporate social responsibility actions such as sponsorships, fundraising and technical support are discontinuous, leading to the decrease in the impact of the prevention of risk and low visibility at both private and public sector.

A no less important model for the components of public - private partnership is offered in „The Public-Private Sector Risk-Sharing in the French Insurance - Cat. Nat. System” (Nathalie de Marcellis-Warin and Erwann Michel-Kerjan)⁵ presenting CAT NAT

⁵Nathalie de Marcellis-Warin, Erwann Michel-Kerjan, The Public-Private Sector Risk-Sharing in the French Insurance “Cat. Nat. System”, Centrul interuniversitar de cercetări și analiză organizațională (CIRANO), Montreal, noiembrie 2001, ISSN 1198-8177

model, so far unique, initiated by France 20 years ago. The model assumes a system of insurance to cover damages due to natural disasters. CAT-NAT system combines private insurance and state-guaranteed public reinsurance, by the national Treasury.

Before 1982, French insurance companies refused to cover damage caused by the most of natural disasters. Following the serious flooding that occurred in late 1981, the French government established a single compensation scheme for those who are victims of natural disasters, called Cat Nat⁶. The French government has created this security system that operates as a public-private partnership for natural hazards considered uninsurable. Extreme situations covered by the application of this system are: earthquake, floods, droughts, landslides, avalanches, tidal effects, landslides. In France, two systems are co-existing for two major natural events: „Cat.Nat guarantee scheme” designed for natural and uninsurable events, „Storm guarantee system” designed for insurable events such as hurricane, ice and snow. Still in France, the term “natural disaster” is more precise than is usually the case. In a case of big storm, no guarantee is made by the national insurance system, but solely by the private insurance system, without any government intervention.

There is, of course, the possibility that both sectors can work together to allocate the claims. For example, the damages from major storms in December 1999 included both operating systems. The direct insurances caused by wind damage were compensated solely by the private system, and flood damage has been compensated by Cat.Nat system.

This system is based on a combination of the principle of national solidarity (each

insured person pays the same percentage regardless of location) and public-private partnership, having the objective of effective compensation: each person should be compensated as soon as possible after assessing the damage caused by natural disaster.

Also, the French system of public - private partnership is based on a triad of stakeholders containing: French Government (Treasury), public private insurers and reinsurers (Caisse Centrale de Réassurance-CCR). Each partner's role in the system Cat. Nat is presented in the scheme below.

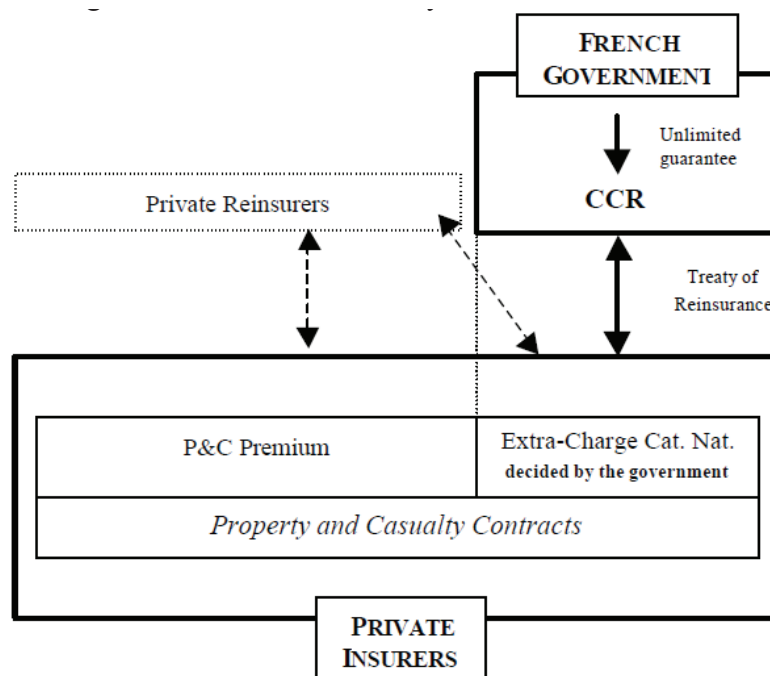
First, the compensation process requires a statement of disaster by the state. The statement of disaster is declared by ministerial decree: the government decides the compensation.

Secondly, the government decides the level of extra-duty rate which will be applied to every contract of insurance in a disaster situation. The total amount of extra tax is transferred to private insurers (as an insurance bonus) to pay compensation within three months if it is a case of natural disaster.

Thirdly, to settle the insolvency of insurers participating in the scheme Cat.Nat., the government offers the possibility of private insurance against such risks reinsured by a public reinsurer, Caisse Centrale de Réassurance-CCR, but without imposing binding. One feature of the system is that the French government provides a guarantee through CCR without limit, which means that the government is lender of the last resort. Therefore, the government guarantee granted to the CCR is a very important element for balancing the system. For insurers, this translates into the fact that they are reinsured by a reinsurer that will never be bankrupt.

⁶Catastrophes naturelles

Fig. 1 CAT. NAT French System



Source: Nathalie de Marcellis-Warin, Erwann Michel-Kerjan, *The Public-Private Sector Risk-Sharing in the French Insurance „Cat. Nat. System“*

3. Paper Content

The general objectives of public-private partnership projects to assess the ability of resilience of critical infrastructure serving the community, as a rule, are:

- examine the vulnerabilities and interdependencies of a critical infrastructure elements operating in the “community”;
- assess the degree of resilience to a possible disaster scenario, the risk of technical failure or terrorist attacks;
- assessment of gaps in capacity for resilience, the degree of preparedness and response to the scenario developed in different hazard analysis report, etc.;
- assess the preparedness of the population response and specialized configurations for intervention;
- economic and social impact assessment of natural or man-made hazards on critical infrastructure sectors managed because of their interdependence;
- setting priorities for specific investments in the equipment and staff training, aiming to increase resilience, preparedness and response capacity of citizens and authorities, in critical situations;
- development of documentation such as “case study” that can be used as a model approach for other communities in the regions.

Specialist - Dr. Ing Septimius Caceu noted that active participation is essential, according to the authority of each structure, representatives of state authorities with responsibilities in the field of economic operators, of the economic operators who are

managing critical infrastructure and services, of technology and security specialized companies, of private security organizations, NGOs and representatives of academia and media for projects important to the safety and security of communities and citizens.

An important step in achieving this objective is to regulate the relationship of collaboration between public and private sector with the advent of Law 178/2010 on partnerships between public and private sectors⁷. In accordance with this law, public-private partnership will cover the following:

a) cooperation between the public partner and private partner;

b) the manner of financing the public-private partnership project is private;

c) In a case of public-private project, the role of partners is to fund and implement the objectives of public interest and to comply with public-private partnership contract;

d) allocation of the risk in the public-private partnership project is proportionately and equitably between the public and private partner.

Initiating a public-private partnership project belongs to the public partner. Centralized coordination and monitoring of the conduct of public-private partnership projects are carried out by the Central Unit for Coordination of Public-Private Partnership. The main task of this unit is represented by: the guidance and monitoring of public partners and private investors interested in the work of organizing and carrying out a public-private partnership project, ruled by the law. Also at Community level, the European Union Council Directive 2008/114/EC evaluates significant private sector involvement in the supervision and risk management,

⁷Legea 178 din 1 octombrie 2010, publicat în Monitorul Oficial 676 din 5 octombrie 2010

continuity planning and post-disaster recovery and a whole community approach to encourage private sector involvement. In order to help improve critical infrastructure protection at EU level is necessary to elaborate a methodology for identification and classification of risks, threats and vulnerabilities of infrastructure assets. Thus, Member States will identify critical infrastructure assets and will evaluate existing security solutions. The procedure of this directive is as follows:

- identification of important assets;

- conduct a risk analysis based on major threat scenarios, vulnerability of each asset, and the potential impact they might have;

- identification, selection and prioritization of measures and procedures with a distinction between:

a) Permanent security measures - identifying the necessary security investments and means that are relevant to be deployed at any time. This position will include information on general measures such as technical measures, organizational measures (including procedures for warning and crisis management) control and verification measures, communication and information systems security.

b) Security measures gradually, which can be activated by different levels of risk and threat.

Also, the authors of „Critical infrastructure protection decision making” (Dennis R. Powell, Sharon M. DeLand, Michael E. Samsa)⁸ underline the need of a detailed assessment of risks and threats, vulnerabilities and uncertain consequences associated with terrorist activities, natural hazards, disasters and accidents.

⁸Dennis R. Powell, Sharon M. DeLand, Michael E. Samsa, Critical infrastructure protection decision making, p.2

The importance of participation of the experts from public and private sector to develop measures of protection must be understood through the need to ensure that knowledge by all stakeholders, tasks and duties assigned to them, to prevent, during and after solving situations emergency caused by various elements of risks or vulnerabilities.

The specialist Septimiu Caceu⁹ states that through a joint effort is possible to create an unified and coherent framework of action for prevention and management of various emergency situations, reducing the significant economic losses, population and personnel injuries and to ensure an optimal, adequate answer to each type of risk identified.

He proposed a scheme to summarize the relationship between private and public partners to manage emergency situations.

In this scheme is presented the fundamental role for the prevention of emergency situations which is attributed to the private companies operating in the security sector, members of the Romanian Association for Technology Security (ARTS). From the Declaration of Principles of the Association ought to remember the following:

- ARTS wants to become a dialogue partner of public authorities; to support and promote proposals to improve legislation on security systems;
- Arts will collaborate with other associations in the country and abroad to assist in the development or acquisition of principles and professional standards in the field;
- Arts will develop a code of conduct for companies operating in the field of

⁹Caceu, Septimiu, Reziliența infrastructurilor critice la nivelul comunităților locale, Institutul european pentru managementul riscului, securității și comunicării

security systems, mediate disputes in which the association's members will be involved;

- ARTS aims to increase the professional level of staff members, will establish a training center for years to come.

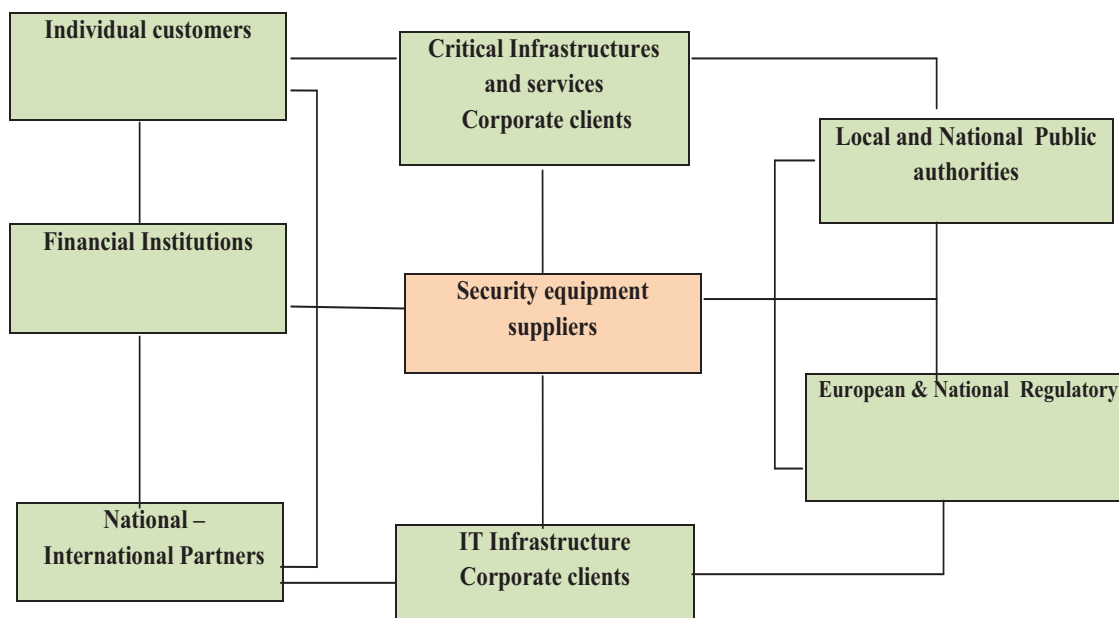
ARTS also signed a partnership with the Romanian Industry Security Association whose objectives are:

- creating a unique representation of the Private Security Services Industry in front of the institutions and bodies in Romania, which can acquire legal personality in accordance with the decision of the signatories of this Protocol;
- creating an unique representation of the Private Security Services Industry in Romania, to march along the bodies of European Security Services and other international organizations to which the three organizations already signed the protocol or will become parties;
- Working to create an organized framework to promote the legitimate interests of private security services industry, the members of these three organizations and creating an environment for discussion, exchange of ideas in the Private Security Services Industry.

Therefore, the establishment of Arts and of partnerships created¹⁰ represents an important step for a major contribution in the management of risk by private companies

¹⁰Parteneriate încheiate cu: Asociația Română a Industriei de Securitate, Asociația de Standardizare din România, Inspectoratul General al Poliției Române, Inspectoratul General al Poliției Române prin Institutul pentru Cercetarea și Prevenirea Criminalității, Inspectoratul General pentru Situații de Urgență, Societatea de Instalații Electrice și Automatizări din România, Societatea de protecție împotriva focului

Fig. 2. The relationship between public and private partners to manage emergencies



Source: Caceu, Septimiu, *Rezilienta infrastructurilor critice la nivelul comunitatilor locale*, Institutul european pentru managementul riscului, securitatii si comunicarii

with public institutions in Romania and the European Union.

Another important step on the public - private partnership for the management of extreme risk events are open to a collaboration with NGOs. This collaboration became official with the advent of OUG 21//2004¹¹ on the Management of National Emergency Situations. This act regulates the establishment, at central and territorial level, of structures with responsibilities in emergency management, namely the coordination, planning and decision support, temporary or permanent activity, placed in the criteria of a hierarchical system of administrative-territorial and the area of responsibility.

¹¹Ordonanța de urgență nr. 21/2004 din 15/04/2004; Publicat în Monitorul Oficial, Partea I nr. 361 din 26/04/2004 privind Sistemul Național de Management al Situațiilor de Urgență

These structures provide consistent and ongoing management of all the activities of prevention planning and implementation, limitation and elimination of the destructive effects of emergencies.

National Management System of Emergency Situations is organized by the government and consists of a network of bodies, organs and structures authorized in emergency management, based on levels or areas of competence and have the infrastructure and resources to perform the duties. The structure of the national regards:

- Emergency committees;
- General Inspectorate for Emergency Situations;
- Professional public services for community emergency;
- Emergency operational centers;
- The commander of the action

To the partnership with NGOs is assigned a support function and covers the following tasks that may have NGOs, ministries, and other central bodies¹²:

- Monitoring of specific hazards and risks and their negative effects;
- Information, notification and warning;
- Planning and preparation of resources and services;
- Communications and IT;
- Search and rescue of trapped persons;
- Evacuation of persons or of the property endangered population;
- Provide emergency medical assistance;
- Prevention of illness in the mass;
- Locating fire and fire fighting;
- Undermining the effects of hazardous materials;
- Providing transportation to the intervention forces, to evacuated people and to other resources;
- Providing water and food supplies for people and animals affected or discharged;
- Providing accommodation and housing to those affected or discharged;
- Providing energy for lighting, heating and other utilities;
- Perform cleaning and decontamination;
- Maintaining and restoring public order;
- Logistics assistance;
- Rehabilitation of the affected area;
- Provide first aid need, compensation and social and religious assistance.

¹²Anexa 2 a Ordonanței de urgență nr. 21/2004 din 15/04/2004; Publicat în Monitorul Oficial, Partea I nr. 361 din 26/04/2004 privind Sistemul Național de Management al Situațiilor de Urgență

The regulation refers in particular to emergency management without taking into account the collaboration regarding the mechanisms to prevent such situations. Therefore there is a need of urgent national legislation to consider prevention mechanisms. In the paper „Background Paper for a Consultative Meeting on a Global Network of NGOs for Community Resilience to Disasters”¹³ it is specified the need for methods and tools for the involvement of NGOs in disaster risk reduction. The need is justified in terms knowledge of the locals and cultural practices and application of methods and approaches that people understand and integrate them into their lives easily. Another explanation is the fact that only through the government and institutional disaster intervention “from top to the bottom”, it is often an insufficient approach, because it might contain a poor understanding of the dynamics, perceptions and needs of the community. In many cases local people and organizations are key actors in disaster risk reduction and disaster intervention. NGOs can act locally, with local communities and organizations as partners and have a participatory approach in planning development. This allows them to better respond to local priorities and to develop the local capacity. Also, NGOs enjoy greater operational flexibility, since they are quite bureaucratic separate structures and systems and are able to respond and adapt more quickly and more easily. One last very important attribute is which recommends NGOs as a strong partner in preventing and managing extreme events (natural hazards and technological accidents), is that they often work together on behalf of most needy groups.

¹³Background Paper for a Consultative Meeting on a Global Network of NGOs for Community Resilience to Disasters, Geneva, 25-26 Octombrie 2006

According to OUG 21/2004, administrative structures with responsibility for crisis management of disasters see NGOs mainly as a service. Thus, it is expected that these NGOs to join the state bodies and institutions with responsibilities for civil emergency - disaster, to make known the services offer that can ensure and establish relations with state authorities since before the natural disasters. The contribution of NGOs can substantially and their concerns enter the scope of understanding and involvement of communities in solving problems they face.

Areas in which NGOs are expected to offer their services¹⁴:

- civilian communications, both at intervention proven in many circumstances, and by connecting to the national system;
- the transport supply and disposal auto, on water and / or air;
- ensuring food on a long-term preservation;
- an identification and provision of temporary accommodation for people affected by any disaster;
- a medical insurance through assistance at the scene of disaster by location, medical surveillance, at the accommodation-evacuation spots;
- a liaison between the national crisis units and the civil organisms in case of emergency situations and / or disasters;
- supporting cooperation activities in case of disaster to ensure an acceptable level of living for the population;

¹⁴Teodorescu, Eliza; Andrei, Lavinia; Manafu, Alexandru ; Ciucă, Anca; Butnariu, Cristina, Managementul riscului de dezastru. Ghid de lucru pentru ONG-urile de mediu în prevenirea dezastrelor, p. 31-32, http://alma-ro.ngo.ro/doc/brosura_management_dezastre.pdf, accesat: 23 octombrie 2010

- preparing and updating databases on the possibilities of providing logistical support, availability of forces and means available arrival time, etc.

The legal document leaves opened the possibility for all availability above to be included in a joint plan prepared by national authorities and NGOs, who may appeal to the plan in a boundary situation.

4. Conclusions and implications

The increased incidence number of extreme risk events led to an increase in domestic and international concerns about public safety issues. Specialized institutions in Romania, together with partner institutions abroad had concluded that the partner seeks to promote both at the legislative and executive level more effective forms of intervention with specific methodologies and adapted to the new political, economic and social context. One of the action mechanisms on prevention and emergency management is considering funding a strong partnership between the public and private sectors. The importance of experts participation from public and private sector to develop measures of protection must be understood by the need to ensure awareness by all stakeholders, tasks and duties assigned to them, to prevent, during and after solving emergency situations caused by various elements of risks or vulnerabilities. According to OUG 21/2004, administrative structures with responsibility for crisis management of disasters see NGOs in the field concerns mainly as a service. Thus, it is expected that these NGOs to join the state bodies and institutions with responsibilities for civil emergency - disaster, to make known the services offer that

can ensure and establish relations with state authorities even before disasters. The contribution of NGOs can substantially limit the circumstances and concerns within the scope of understanding and involvement of communities in solving problems they face. Thus, the joint action, joint effort can lead to the creation of an unified and coherent framework of action for prevention and management of various emergency situations, reducing the significant economic loss, injury population and to ensure an optimal response, appropriate to each type of risk identified. Regarding international approach to public - private partnerships, the paper analyze the role of the insurance sector, the model taken from the work "Managing Large-Scale Risks in a New Era of Catastrophes. Insuring, Mitigating and Financing Recovery from Natural Disasters in the United States "in which is highlighted that the regulation of insurance companies and insurance markets has an important role in situations of disaster risk management. Each state exercises considerable authority over spending and incomes of insurers, financial statements, rates, products, and other

activities of their complaints. The regulators cannot dictate results, but their policies can support the development of insurance markets or can create some problems and distortions of these markets. Two other models of partnership are being developed in this paper content and include: private sector which plays an important role in the process of reducing the consequences of natural disasters through social responsibility campaigns and the French model of public - private partnership "CAT NAT".

Therefore, we conclude that the models presented above can be used as examples of good practices and are adapted by countries which still seek effective solutions to reduce risks caused by extreme events.

Without claiming to have exhausted all of the problems in the risk reduction of natural hazards, the authors create a conceptual framework for: the study of government intervention forms; the study evaluating the effectiveness of the ways of intervention with a specific methodology; the study of the action mechanisms of public-private partnerships.

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