

## THE EMERGENCY LAW: IS IT ABLE TO CREATE A DRM SYSTEM IN BRAZIL?

## LEI DE EMERGÊNCIAS: É ELA CAPAZ DE CRIAR UM SISTEMA DE GRD NO BRASIL?

Antonio Maria Claret-Gouveia<sup>1</sup>**Abstract**

Brazil is increasingly impacted by natural disasters, forcing the Federal Government to improve the current disaster risk management (DRM) system. After the two big disastrous events of Nova Friburgo, RJ and of Vale do Itajaí, SC, during 2011, Brazilian Congress approved a new Emergency Law which is supposed to be the cornerstone of a Brazilian DRM system. The main purpose of this paper is to investigate how much this law is able to produce effective results in this direction. The methodology adopted is the hermeneutics analysis of the law text itself and of its reference texts but focus is on its engineering concepts and on the disaster management method proposed. United Nations International Strategy for Disaster Reduction priorities for action in the period 2005-2015 are taken as a reference. Conclusions suggest that a revision of the current Brazilian Emergency Law is needed and key aspects for this revision are described.

**Keywords:** Brazilian emergency law; Natural disasters; Disaster risk management; Strategy for disaster reduction; Mainstreaming of DRM.

**Resumo**

O Brasil vem sendo impactado por desastres naturais obrigando o Governo Federal a implantar um sistema de gerenciamento de riscos de desastres (GRD). Depois de dois grandes desastres, ocorridos em Nova Friburgo, RJ, e no Vale do Itajaí, SC, durante 2011, o Congresso Brasileiro aprovou uma nova Lei de Emergências que se supôs ser o fundamento de um sistema brasileiro de gerenciamento de riscos. O principal objetivo deste trabalho é investigar o quanto essa lei é capaz de produzir resultados nessa direção. A metodologia adotada é a análise hermenêutica do texto da lei e dos textos de referência, mas o foco está nos conceitos de engenharia que adota e no método de gerenciamento de desastres proposto. As prioridades de ação do documento Estratégia para a Redução de Desastres Naturais no período de 2005-2015 das Nações Unidas são tomadas como referência. As conclusões sugerem que a revisão da Lei de Emergências é necessária e os aspectos mais importantes dessa revisão são descritos.

**Palavras-chave:** Lei de Emergências; Desastres naturais; Gerenciamento de risco de desastres; Estratégia para a redução de desastres; Mainstreaming de GRD.

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## INTRODUCTION

The main purpose of this paper is to investigate how much the Brazilian emergency law is able to create a DRM system in the country. Thus, this research has its methodological basis on the legal dogmatic reasoning method. But, some arguments are taken from the theoretical reflections of law-science interface (FARBER, 2012) specifically from the problem 'engineering and law making' (MARSHAW, 2003) considering that DRM is a typical engineering field. Disaster Risk Management (DRM) is defined at UNISDR - United Nations International Strategy for Disaster Reduction (UNISDR, 2009) as

"the systematic process of using administrative directives, organizations, and operational skills, together with the capacity to implement strategies and policies that improve coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster".

It is a technical consensus (DAVIS, 2011; ISHIWATARI, 2013) that building DRM into national development strategies and programs is of pivotal importance to make sure new developments do not worsen disaster risks. Furthermore, there is more than one recommendation from international agencies (UNISDR, 2007; UNISDR, 2011) stressing that mainstreaming of DRM into national level governance is of vital importance in reducing natural disasters.

Brazil is increasingly impacted by natural disasters (STEVAUX et al., 2010), forcing the Federal Government to improve the current DRM system. Two key events may be cited as a demonstration. In between 11 and 12 January 2011 the mountainous region of Rio de Janeiro in the Southeast of the country registered an intense rainfall. Floods and mudslides followed in a large area of 5 cities causing 903 deaths and damages of 1.2 billion dollars (DISASTER, 2011). Three years before, 14 cities of State of Santa Catarina in the extreme South of the country were involved in intense floods and land sliding causing 3000 to lose their homes and 20000 residences were damaged (GARCIA et al., 2011). In addition, as the guardian of important ecosystems, including the Amazon rainforest, which is the largest worldwide, organizing a system of DRM becomes an even more Government pressing issue.

As a result of and after the last big events of 2011, Brazilian Congress approved a new Emergency Law (BRASIL, 2012). This law is supposed to be the cornerstone of a Brazilian DRM system.

## METHODOLOGY

As mentioned early, the methodology adopted is the dogmatic exegesis of the law text itself and of its reference texts. Three essential steps of the research method used are:

- a. characterize the concept of risk management at the foundation of the Brazilian legal DRM framework;
- b. describe the Brazilian legal DRM framework;
- c. verify if it complies with UNISDR priorities for action (UNISDR, 2005) in the period 2005-2015.

Working in the field of DRM engineering, these priorities for action were interpreted (see Box 1) as five actions that Brazilian Emergency Law and its reference legal texts must determine, considering that public agents must do only what is determined by laws.

The final conclusion is extracted from the answers to questions like: is the Brazilian Emergency Law based on misconceptions of DRM? Is it formal with excessive bureaucracy? Has it conflicting commandments? How it impacts engineering research in Brazil's specific problems of DRM as a basis for planning actions? Evaluations of these responses will give a qualitative idea of how much the DRM legal framework of Brazil is likely to be effective.

Box 1. Characteristics of a Potentially Effective Legal Framework  
for developing countries

- (1) The legal framework of DRM is currently based upon conceptual foundations specially departing from mythic and fatalistic conceptions of disasters.
- (2) The legal framework of DRM creates focal agencies on the national, regional and local levels. The communication between these agencies is easy and without bureaucratic formalism.
- (3) Identification, assessing and monitoring of disaster risks and early warning systems is determined in all of the territory.
- (4) Knowledge, innovation and education are the bases of actions to build a culture of safety, resilience and preparedness at all levels.
- (5) Mainstreaming of DRM activities is effectively implemented through legal mechanisms mainly for Government agencies involved in urban infrastructures, highways, dams and water, gas and electricity distributions.

Source: Authors' elaboration

## THE BRAZILIAN EMERGENCY LEGAL FRAMEWORK

The Brazilian Emergency Legal Framework is headlined by the federal law N. 12.608 approved on April 10<sup>th</sup> 2012 (BRASIL, 2012). Several laws, decrees and ordinances support this law, most of them approved before it. This set of legal documents is herein referred to simply as the Brazilian Emergency Law (BEL).

Firstly, Law N. 12.608 (Article 1) introduces a general program of actions concerned with DRM called National Policy of Protection and Civil Defense (PNPDEC). Secondly, it creates the National System of Protection and Civil Defense (SINPDEC) and a collegiate council to support it on specific policies in this area named National Council of Protection and Civil Defense (CONPDEC).

In Article 2, it is said that the disaster risk reduction is the responsibility of The Federal Union, States and Cities. Related to this point, Brazilian Constitution nowadays in force in its Article 21, section XVIII, establishes exclusive financial responsibility of The Federal Union "to plan and promote the permanent defense against public calamities, specially droughts and inundations".

The actions included in the PNPDEC are according to Article 3: prevention, mitigation, preparation, response and recovery. Section 1 of this article states that public and private entities and organizations of the civil society may share the activities of DRM. Section 2 establishes that the uncertainty of a disaster risk is not an impediment to act in its prevention and mitigation.

PNPDEC is based on three principles given in Article 4:

1. joint action of Federal Union, states, cities and civil organizations in all activities related to DRM (Sections I);
2. priority for actions of disaster prevention (Section III);
3. adoption of research and field studies as a basis for planning actions (Section V).

The objectives of PNPDEC are fifteen actions (Article 5) all included in risk identification, risk analysis, prevention, mitigation, response, recovery and development of community resilience. Section IV establishes that it is an objective of PNPDEC to include "the disaster risk reduction and the protection and civil defense actions as part of land use planning and sectoral policies".

The focal national agency of DRM is the National Secretariat of Protection and Civil Defense (SNPDEC) which is placed within the Ministry of National Integration. At the regional level, the focal agencies are the State Coordination of Civil Defense (CEDEC) and at the local level, the Municipal Coordination of Civil Defense (COMDEC). The main activities of the national, regional and local agencies are summarized in Table 1.

**Table 1 - Main DRM activities of focal agencies**

SNPDEC (National level)	CEDEC (State level)	COMDEC (Municipal level)
National coordination of SINEDEC actions	Regional coordination of SINEDEC actions	Local coordination of SINEDEC actions
Studies of risk identification and of risk analysis in federal areas	Studies of risk identification and of risk analysis in state areas	Studies of risk identification and of risk analysis in municipal areas
Create a system for recognizing the emergency state	Support of Union in recognizing emergency state	Declare emergency state
	Declaration of emergency and public calamity state when more than one city is involved	Declaration of emergency and public calamity state in the limits of the city area
Support the research on disasters and risk	Meteorological, hydrological and geological monitoring of risk areas	Survey and promote preventive interventions in buildings and areas of risk; evacuate population in risk areas
		Do all activities of assistance in case of disasters.

Law N. 12.608 refers to two legal documents as its complement: the Decree N. 7.257 published on August 4<sup>th</sup> 2010 (BRASIL, 2010a) as its regulatory text and the law number N. 12.340 approved on December 1<sup>st</sup> 2010 (BRASIL, 2010b) which establishes the criteria and the

process the Federal Union uses to transfer money to support state and city activities in case of public calamity.

Decree N. 7.257 begins stating in its Article 1 that The Federal Union will complementarily support states and cities in their prevention, response and recovery of disasters. The criteria of deciding to give or not support are the recognition by the Federal Union of the emergency state of a city or a region and the approval given to the related prevention, response and recovery plans.

Since 1969, there has been in Brazil a National Fund for Public Calamities (FUNCAP) whose budget is approved each year in the National Budget Law. States and cities must create funds to receive the financial resources from FUNCAP in case of disaster prevention, response and recovery. Before 2010, these funds were managed by Governors or Mayors; after the Decree N. 7.257 a Card of Civil Defense Payments (CPDC) was created to expedite payments and provide better control of expenses through official financial institutions.

## RESULTS

### General context

In areas of Law, such as Disaster and Environmental Law, in Brazil, compliance with laws loses much of its force for three reasons: first, because there is not an efficient monitoring system; second, because the actions are not typical and their consequences are often not immediate, always demanding the job of experts to identify and measure them; and third, because they correspond to social rights whose protection depends directly on the degree of awareness and organization of society.

But, concerning to Environmental Law, McAllister (2009) states that the 'prosecutorial enforcement' headed by Ministerio Publico is the means by which environmental protection is becoming more and more effective in Brazil as the enforcement by regulatory agencies is generally ineffective.

In case of Disaster Law, there is at least one similarity and two differences when compared with environmental laws. The similarity is that prosecutorial enforcement is applicable as the right of a safe environment is a public or societal right. The first difference is that social organizations act more firmly in the generic area of environmental protection than in the specific area of DRM. Thus, as a consequence, environmental laws are more specific when defining the agent's behavior with well defined requirements while DRM laws tend to be

generic. The second difference is that a great part of emergency law are rules destined to bound the action of the Federal Union, States and Cities. In this case, in spite of no legal impediments, prosecutorial enforcement does not have the same importance as in generic environmental law effectiveness.

### **Disaster definition**

It was found that BEL uses only one acceptable disaster concept. In the Article 2, Section II of Decree N. 7.257, disaster is defined as a result of adverse natural or manmade events on a vulnerable ecosystem, causing human damage and material, environmental, economic and social losses. Comparing with the far more objective definition given by UNISDR (2009), it is observed that the above concept, despite clarifying the effects of a calamity over a community, attributes its cause to "abnormal and adverse factors", a general expression which may refer to naturally triggered hazards or man-made actions that generate a disaster. In particular, the expression "adverse factors" is well suited to include human actions like vandalism, explosions, arson fires and terrorism. In sum, the mentioned "disaster" concept remains partly in the field of subjectivity giving occasion to political interpretation within the reasonable margins of DRM.

Farber (2012), although focusing on technological disasters, states that "disaster in practice is a malleable term" but Dauber (1998) in the author's point of view goes directly to the main point for Brazilian political culture: 'Although the category 'disaster' at first may seem unproblematic, (...) we should see its definition and boundaries as precisely what is at stake in many contests over the allocation of federal resources".

In fact, disasters are not deterministically related to a cause in a Cartesian sense; they are often the product of a combination of exposures of a population or an environment to a hazard; the conditions of vulnerability that are present; and insufficient capacity or measures to reduce or cope with the potential negative consequences (UNISDR, 2009). Thus, when BEL uses the expression "abnormal and adverse factors" as causing disasters, it reveals a somewhat mythic or fatalistic vision due to the inexistence of a tradition of doing risk analyses in Brazil.

It is fair to cite Farber's (2012) conclusion when discussing "What is a Disaster?": "Although the field of disaster law does not have sharp boundaries, the core cases are fairly clear. Hurricanes, floods, and earthquakes are clearly natural disasters, despite the importance of human factors in determining the extent of harm".

Therefore, it would be desirable for BEL to leave the definition of what is a natural disaster for each geographic region to do it according to what and how it occurs most frequently there. On the other hand, this would allow some regions to treat slow disasters with the same attention that sudden disasters always deserve. To illustrate, regions where it has not rained for several years do not receive the same emergency attention from regions affected by heavy and rapid rains.

On the other hand, the Decree N. 7.257 includes in the definition of disaster, the concepts of an emergency situation (Article 2, Section III) and of the state of public calamity (Article 2, Section IV). Between emergency situation and state of public calamity, there is a genuinely subjective difference in the intensity evaluation of disaster consequences, being the emergency situation less severe than the state of public calamity.

In practical terms, in emergency situation, Government support is given only for recovery, and in a public calamity state, Government support is needed for response and recovery. Thus, a criterion to decide the amount of financial support remains as subjective matter. As a consequence, BEL gives a chance for political influence to decide where the Government's funds will go. This is one between others mechanisms that makes social inequality go even further.

### **Focal agencies**

Ishiwatari (2013) states that the positioning of the national focal agency within the government structure is of crucial importance. History of institutions as a function of disaster type and scale, socio-economic conditions and geography are likely the factors that define how the national focal agency is positioned. In Brazil, Government agencies designated for disaster response are very new for a cruel historical reason: up to the mid-nineties, the political and economic elites believed that the country was a 'tropical paradise' and 'immune' to the power of earthquakes, volcanoes and tornados. However, floods and landslides were frequent but restricted to the poor settlements of the big metropolitan areas (CORREA, 2010).

In this context, droughts were a special case: since the first decades of XIX century, droughts continuously created thousands of refugees migrating from the Northeast to the Southeast. This created two bad ideas associated with disasters in Brazil: the concept of permanent disaster like a natural geographic fatality and the idea that disasters affect only the poor. To deal with drought, a first institution was created in 1909 which in 1945 became the



National Department of Works Against Drought (DNOCS). This was not a good model for a disaster response agency because its objective was mainly the works related to the mitigation of cyclic droughts in the Northeast of Brazil.

But the situation has changed: although the myth of a tropical paradise is fed back for political and commercial reasons, the frequency of so-called 'natural' disasters has grown and it is now not only the urban poor who are affected in Brazil (MAGRIN et al., 2007). Hence, the Brazilian Government is forced to face the challenge of creating a more efficient disaster management system (ZUCCO et. al., 2011). Several other institutions are considered forerunners to the current focal agency SNPDEC but these are hardly characterized as DRM agencies.

Considering the position of focal agencies within the Government, Ishiwatari (2013) found three models in Asian countries. Model 1 is designated 'coordination agency' and is characterized by reporting directly to the head of state. In this case the agency does not implement projects and relief activities but coordinates and leads policy formulation, disaster management, and other key disaster's countermeasures.

As for Model 2, the agency is located side by side with other ministries and as a consequence does not have the authority to influence policy decisions for DRM at the highest level. Finally, Model 3 includes agencies developed from existing organizations that expanded their specific functions from disaster response to coordinating policies and countermeasures in the pre-disaster phase.

Ishiwatari's observed models are not exclusive of Asian countries. As mentioned early, current DRM structure in each country is a consequence of the way Governments historically treated disasters response. But it is evident that since the World Conference for Disaster Reduction held in Kobe, Japan, UNISDR influenced the organizational structure of DRM all over the world. The Hyogo Framework Act (UNISDR, 2005) detailed what is required of Government's and societies' actors to reduce disasters losses and aimed to bring them to a common system of coordination. Thus, despite of historically been influenced, DRM structure tends to a standardized organization with a predominant agency at the center.

In Brazil, DRM has characteristics of all three Ishiwatari's models. First of all, executive actions concerning DRM in the country are the responsibility of the National Secretariat of Protection and Civil Defense (SNPDEC), while policy orientations and decisions are carried out at the National Council of Protection and Civil Defense (CONDEC). Both institutions report to the Ministry of National Integration not directly to the President, but as a collegiate council,

CONDEC members are representative of all others Government ministries. Thus, considering its position, SNPDEC and CONDEC are implemented according to Model 2.

Meanwhile, the frequent use of the term 'civil defense' stems from the existence of previous organizations (Model 3) dating back to the Second World War and to the Military Regime from 1964-1985 when there was a Government concern with what was called as 'public order'.

It would have been desirable if the new law N. 12.608 approved on April 2012 had created a new Model 1 institution for DRM in Brazil. This would have been considered the end mark of an illusionist era — the era of the tropical paradise — and the beginning of another in which communities decide to build a culture of safety on a realistic basis of risk knowledge and disaster risk management.

Brazil is a country vulnerable to disaster impacts (STEVANUX et al., 2010; NICOLODI and PETERMANN, 2010; FONTES et al., 2010). Just to cite a few data, one may consider that 84.3% out of a population of 206 million are living in urban areas in Brazil, being 40% of them in 100 of Brazil's greatest cities; 8.5% of these urban inhabitants are living in very precarious houses or are homeless. Although it is out of the scope of this work to discuss Brazilian vulnerability to disaster impacts, it is clear that is unwise to ignore these vulnerability factors.

Establishing and empowering a Model 1 agency for DRM in Brazil would need strong political commitment of Government staff, but in turn would permit to coordinate and lead other organizations to mainstream DRM in their activities accomplishing to one of the most important recommendations of UNISDR (2005) for the period 2005-2015. This would be a challenging task because institutions of longer history and larger budget tend to independently conduct their projects without paying attention to the requirements of interface agencies like CONDEC. Although CONDEC has representatives of all of the ministries, this is not sufficient to guarantee spreading of its policies, since it is positioned inside the structure of Ministry of National Integration. This situation would be different if CONDEC had been positioned under the direct authority of the President, configuring a Model 1 agency.

Another important aspect of the legal foundations of DRM in Brazil refers to the principle of complimentary action by the Federal Union. Reflecting the fact that a parallel model of type 2 is used in practical terms, the Federal Union tends to focus its actions as a financial agency. Thus, the process of transferring financial resources to States or Cities receives more attention from the technical staff of the Government. In this structure, the state's role tends to be that of a mere intermediary agent, except for disaster responses involving the action of

Official State Fire Brigades and for the recovery of state roads and buildings like state schools and hospitals. As a result, the main activities of DRM are targeted for the sphere of city commitments.

But, it is known that most cities do not have organizational skills nor do they have financial resources to continuously support an experienced staff to deal with disaster response. If technical support is required of Federal Union, Article 4, Section VIII of Decree N. 7.257, establishes that the expenses are for the responsibility of interested cities. Despite this, the Law N. 12.608 in its Article 5, Section V, establishes as an objective of PNPDEC 'to continuously promote actions of protection and civil defense'. It is obvious that complimentary action from the Federal Union is in practical terms opposing this objective.

The state of public calamity or emergency situation is declared through a decree of the City's or State's head of the executive power. This declaration must be recognized by the Federal Government through an act of the Ministry of National Integration. A report is needed describing the disastrous event and its consequences, most of it made by photographs and videos. The bureaucratic part is due to a classification of the disaster according the Centre for Research of Epidemiology of Disasters of World Health Organization/UN. In practical terms, this is not a cumbersome activity and it is easily accomplished although completely unnecessary for the first days after a disaster occurs.

On the other hand, recovery action currently requires a bureaucratic detailed action plan mainly considering the amount of resources needed and the prevention of corruption acts. In fact, the delay on reconstruction activities is frequently reported to take years in several cases. The Card of Payment of Civil Defense was introduced in June 2011 as an instrument to expedite the process of disaster response but not for disaster recovery. Thus, disasters are leaving a mat of bad memories throughout the national territory.

### **Disaster risk monitoring and early warning**

For PNPDEC that is responsible for the disaster risk monitoring of all of the territory and communities, early warning is the objective of BEL. In this sense, Cities, States and Federal Union are committed to this objective on local, regional and national levels, respectively. But, it is observed that disaster monitoring and early warning systems are often included in works of recovery. Thus, these systems are destined only for cities where disasters of a certain level of severity has occurred and lose the genuine aspect of risk monitoring as a prevention measure.

Law N. 12.608 established that the Federal Government should create a 'catalog of cities susceptible to landslides and flooding of great impact'. Cities in this catalog have high priority in receiving funds to implement risk monitoring and early warning systems. This has reinforced the community's tendency to consider as natural disasters typically these kind of events. Thus, when it comes to risk monitoring and alarm systems, in general one is referring only to landslides and flooding. In the long term, this can be a big fault of the disaster management system in Brazil.

### **Knowledge, innovation and education**

Knowledge and innovation are used in DRM as much as they are used in Brazilian society. The National Council of Scientific and Technologic Development (CNPq) which is the main research financing agency in the country established special programs to support research on scientific and development fields of interest to DRM. This occurred progressively after the UN Conference Rio 1992. Despite of Law N. 12.608 determines the support of research programs related to DRM, it is probably researchers and academic people who most influenced its approval.

Research institutes and universities are supporting DRM activities for both its scientific basis and development of risk monitoring equipment. Meteorology, geology, geotechnics and hydrology are the main focus of research but climatology, biology and geography are focalizing on the specific aspects of Brazil.

In Brazil, public and private schools have relatively large freedom to build a curriculum according to their particular interests, but there is a common body of subjects which are imposed by the LDB - National Directives for Education Law (BRASIL, 1996). LDB introduced the Section VII at Article 26 of LDB stating that 'the curriculum of elementary and secondary education should include the principles of protection, civil defense and environmental education in an integrated way with the other contents'. As the public schools in general are lacking in human and laboratory resources, this activity has been effected very slowly. TV and internet are tools for spreading information although not of the same quality as could be taught by a formal and trained teacher.

## Mainstreaming of DRM

As Law N. 12.608 is the last element of Brazilian legal framework of DRM, it is observed that mainstreaming is still a very timid initiative in Brazil. Mainstreaming is seen as an introduction of disaster risk reduction and other activities of protection and civil defense into urban planning and sectorial policies. This is so generic to produce effective results mainly because it is the objective of PNPDEC and not a direct ordinance to anyone. This is much less than that suggested by the World Conference for Disaster Reduction held in Kobe, Japan, (UNISDR, 2005) which emphasizes the action of ensuring DRM as a national, regional and local priority with a strong institutional basis for implementation of disaster risk reduction.

It is recognized that each country should mainstream DRM according to its governance structure and culture. In Brazil, an efficient DRM mainstreaming in the last two decades would have been important to assure that the country's growth and development are sustainable. Brazil has been one of the developing countries during the last decade involving several big infrastructure works like highways, railways, hydroelectric plants, airports and new urban villages. It is concluded that DRM did not receive the true importance in planning in this outbreak of development, since some old problems are still occurring in new works.

In Decree N. 7.257, mainstreaming is not defined in the article devoted to terminology. This fact expresses that mainstreaming is not a priority for the legislators at that moment. Of course, mainstreaming is not prohibited but it is obvious it is not considered an important basis for disaster reduction in the country. It is concluded that the pale expression of DRM within Brazilian legal framework is the membership of all ministries representatives in the CONDEC as mentioned in section 3.3.

In contrast, legislators in Brazil have always been concerned with withdrawing legal exigencies when faced with urgent disaster response and recovery. For example, the Law N. 8.666 approved on June 21<sup>th</sup> 1993 (BRASIL, 1993) introduced Section VI of Article 24 which permits acquisition of goods, services and equipment without bidding. This apparent care and respect for urgency has given rise to an increase in corruption in cases of natural disasters.

## CONCLUSIONS

The development of a legal risk definition has both theoretical and practical implications. Firstly, the way risk is defined in a society dictates how risk reduction is addressed.

Secondly, special public financial resources are directed for actions aiming to reduce disaster risk, being important to correctly characterize what class of events is under consideration.

Disasters are commonly seen as the result of an interaction between so-called natural hazards and vulnerable conditions. This concept is well suited to include all rapid-onset disasters, which are the class of events that receive more governmental attention because of the media communication impact on the opinion of citizens. In countries where corruption of rent-seekers is always competing for money with numerous real and urgent problems, this definition is likely to generate two undesirable situations. The first is that prevention, mitigation and preparedness actions would be completely sidelined, being government actions focused on primary response actions. This is likely to explain why droughts, landslides and floods are recurrent disasters in some places in Brazil, experiencing unexpected increased intensity. The second situation is one that does not consider slow-onset disasters as true disasters. As an example, this is the case of drought on the Northeast of Brazil which is a very serious catastrophe, existent since the second half of XIX century.

By all means, enforcing actions by law that, by definition, make sure that all different risk components are addressed would be a way to establish an effective disaster risk management in Brazil. However, many definitions used do not provide sufficient guidance in this respect, as one sees in BEL. In addition, actions related to recovery (i.e. preparedness for recovery) are often not mentioned as an inherent part of risk reduction. Risk assessment, which is only a pale figure in BEL, is required for identifying all types of risk reduction measures, including prevention, mitigation, preparedness for response and preparedness for recovery.

BEL should not create a fragmented risk management system, but instead should be the connecting link between local, regional, national and global actors. This sends the discussion into the field of Brazilian law making process. It is regrettable to note that the process of making laws involving technical aspects such as BEL does not necessarily include an efficient process of consulting a high-level staff. On the contrary, it is consecrated in Brazil the use of 'public hearings' even for eminently technical matters. This gives rise to merely emotional manifestations which explains the use of fatalistic concepts of natural disasters and the recurrent use of the expression 'public calamity'.

The Emergency law's 'financial complementary principle' by which the Federal Government assumes the sole responsibility for financial support during disasters response should be changed to a more 'complementary principle in planning' disaster risk management that establishes municipal, state and federal duties.

In sum, the findings suggest that it is crucial that the revision of the current Brazilian Emergency Law and related laws takes the described key aspects into account, making sure that (a) no separate systems for disaster risk management and climate change adaptation will be created and (b) the concepts provide a sufficiently concrete and detailed basis to allow a comprehensive and operational approach to disaster management. In this way, certainly the BEL will be able to create a DRM system in Brazil.

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