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Latin American and Caribbean
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Sistema Económico
Latino-Americano e do Caribe

Système Economique
Latinoaméricain et Caribéen

Guidelines for cooperation between governments and the private sector for disaster risk reduction: Approaches, achievements and challenges

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F O R E W O R D

This document is foreseen in the Work Programme of the Permanent Secretariat of the Latin American and Caribbean Economic System (SELA) for the year 2011, as part of the project "Technical Assistance to contribute to economic and social development in LAC," which includes Activity II.2.2. "Contribution of the Private Sector to Disaster Risk Reduction. Opportunities for Cooperation available to Governments."

It is a contribution of the Permanent Secretariat to encourage the discussions and debates that will take place at the Regional Seminar on "Cooperation between governments and the private sector for disaster risk reduction in Latin America and the Caribbean: Focus, progress and challenges" (Panama City, 17 and 18 November 2011).

The document consists of an introduction and ten chapters dealing with the following issues: i) A look at the trends behind the problem of disasters; ii) Growth of cities and increase in vulnerability; iii) From administration of disasters to risk management; iv) The role of the private sector vis-à-vis disasters: achievements and challenges; v) Response of the private sector to disasters: achievements, challenges and experiences of interest; vi) Preparedness of the private sector to face disasters: achievements, challenges and experiences of interest; vii) Risk prevention and mitigation: achievements, challenges and experiences of interest; viii) A look at business continuity and insurances; ix) Some remarks from the standpoint of corporate social responsibility; and x) The experience of Total Oil & Gas Venezuela. Finally it presents some general conclusions.

This study was prepared by consultant Alejandro Linayo, to whom the Permanent Secretariat wishes to express its gratitude and recognition.

I. INTRODUCTION

This document contains the results of a study conducted by the Permanent Secretariat of the Latin American and Caribbean Economic System (SELA) to explore new and better ways to promote cooperation between the private sector and the governments of Latin America and the Caribbean on issues related to the reduction of socio-natural disaster risk, a topic that will be dealt with during the “Regional Seminar on “Cooperation between governments and the private sector for disaster risk reduction in Latin America and the Caribbean: Focus, progress and challenges”, to be held in Panama City in November 2011, with the support of SELA and the United Nations International Strategy for Disaster Reduction (ISDR).

In order to provide a context and understand the approach and importance of this initiative being promoted by the Permanent Secretariat of SELA at the regional level, it should be made clear that while it is true that the cooperation from the private sector vis-à-vis disaster scenarios is not new at all, and that these actors have provided support to varying degrees in each and every one of the disasters that have occurred in our region in recent years, several elements seem to suggest that it is possible to improve the way in which these regional private actors are involved with the challenge of reducing socio-natural disaster risk, both in terms of its mechanisms and its fundamentals.

Thus, the challenge facing us seems to be clear: rather than ensuring cooperation and support from the private sector in the wake of disasters,¹ the purpose is to study and promote best practices for public-private cooperation, as well as more and better ways of linking the sector private to this problem, particularly in terms of the comprehensiveness and sustainability of their actions, their appropriateness and relevance with respect to each local context, their cost-effectiveness, and their forms of liaison and coordination with spaces and institutional entities responsible for risk prevention and mitigation, preparedness and disaster response.

One of the most promising aspects of this effort by the Permanent Secretariat is that it could become a real window of opportunity so that such regional public-private cooperation for disaster risk reduction stops being provided exclusively at the moment when an emergency emerges and starts to encourage and follow a much more forward-looking and sustainable approach.

In this connection, it is necessary to identify, systematize and analyze tools, mechanisms, instruments and services that may be made available to both public and private sectors, in order to support better and more sustainable practices for disaster risk reduction in Latin America and the Caribbean. Such mechanisms should demonstrate that involving the private sector in disaster risk management, in addition to being an opportunity for cooperation available to the governments of the region, is also a smart investment for the private sector, which can be highly profitable in terms of security of their property and facilities, while ensuring continuity of business and operations, consolidating its corporate image and its corporate social responsibility.

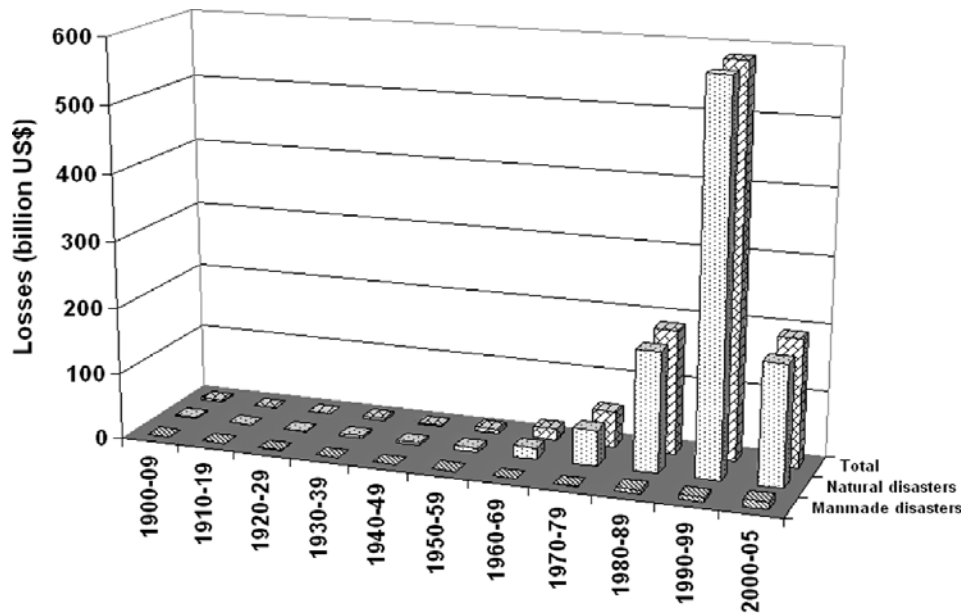
¹ As stated above, such cooperation has always been provided to varying degrees in each and every one of the disasters faced by our region.

II. A LOOK AT THE TRENDS BEHIND THE PROBLEM OF DISASTERS

Any reference to the current importance of making efforts to reduce disaster risk in our society seems to be not only unnecessary, but also insufficient, when considering the overwhelming empirical evidence that the mass media has presented on the impact of disasters on the world day by day. The most worrisome aspect of this situation is that, far from being circumstantial, it seems to follow a trend that is clearly defined by the fateful prediction made in the 1980s by E. Quarantelli, when he said that we were heading towards a world scenario invariably characterized by “more and worse disasters in the future” (Quarantelli 1983, 5).

To mention only a few facts, over the past 40 years, the number of disasters and their impact on human development globally has grown consistently year after year, and although the information available between 1900 and 1980 does not seem to be completely reliable, all studies suggest an exponential growth in the economic and social repercussions associated with the impact of disasters, especially in developing countries (Charts 1 and 2).

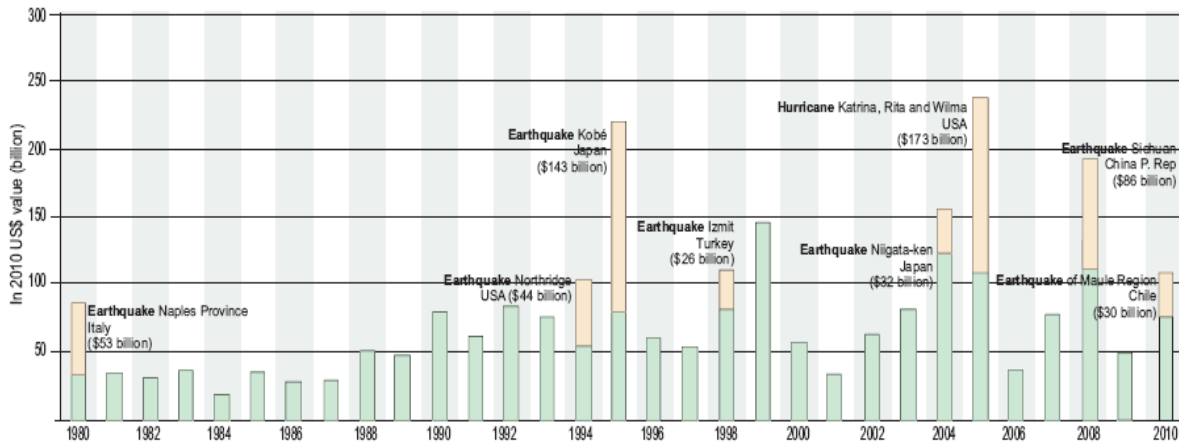
Chart 1
Annual number of natural disasters



(Source: International Disaster Database, www.emdat.be)

The stronger losses associated with natural disasters and/or technological disasters described above suggest both an annual increase in the number of disasters that have been recorded (Chart 3) as an aggravation of the direct and indirect consequences that such disasters are having for human beings, the environments they occupy and the economies that operate in those spaces. While intuitively one might think that such increases are associated with an increased frequency or severity of what might be called “trigger events” (which in the case of natural disasters would imply accepting that there are now more and worse earthquakes, volcanic eruptions or hurricanes than before), it is worth noting that there is no evidence to suggest that the increased impact of disasters worldwide is due to stronger and more frequent natural phenomena.

Chart 2
Annual report of economic losses associated with disasters (1980-2010)



(Source: CRED database of EM-DAT. International Disaster Database, www.emdat.be)

It should be pointed out that the previous remark could be questioned when we look at the growing number of hydro-meteorological disasters that have recently hit the planet and could easily suggest a change in the global climate system, a thesis that has been most widespread in the past few years in the debates on climate change. However, it is not so easy to conclude that the hydro-meteorological disasters are increasing in our region only because of a change in global climate.

Chart 3
Annual number of natural disasters



(Source: CRED database of EM-DAT. International Disaster Database, www.emdat.be)

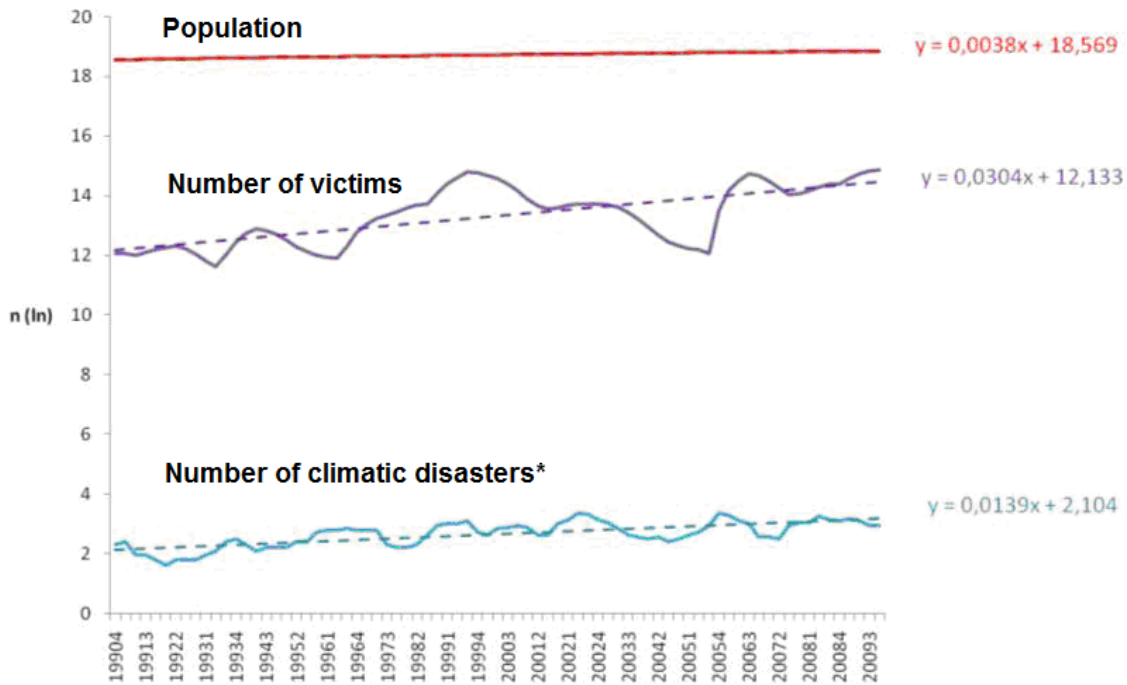
Of course, it is not possible to overlook the real threat that the climate change could pose to humanity in terms of "*even more and worse disasters in the future.*" Nevertheless, we must be wary of associating the larger number of such disasters – particularly in Latin America and the Caribbean – only with a change in the region's rainfall patterns. Moreover, an element leading to such consideration is that, for most of recorded hydro-meteorological disasters in our region in recent years, there is evidence that the trigger events have essentially been repetitions of the rain patterns with recognized historical recurrence, and that the differences in the levels of damage caused in the past and at present have been rather due to the current patterns of urban occupation (Linayo, 2006.8).

Another interesting hypothesis proposed to justify the reasons for the increased levels of impact of disasters globally and regionally over the past decades suggests that there are more people affected now simply because there are more people living in the various regions of the planet. In other words, the increased level of human damage caused by disaster is the result of the population growth.

In view of this approach, the statistical records and analyses conducted under the direction of Dr. Debarati Guha-Sapir at the Centre for Research on the Epidemiology of Disasters (CRED) turn out to be particularly interesting. This centre specializes in the statistical analysis of disaster and is located at the Catholic University of Louvain in Brussels, Belgium.

In order to determine the correlation among population growth, the number of weather-related disasters (associated with the occurrence of floods, hydro-geological phenomena, storms, extreme temperatures, droughts and forest fires), and the number of victims caused by this type of disasters, Dr. Guha-Sapir and her team have gathered and analyzed statistical records over a century and their results suggest that the rate of increase in the number of victims of disasters in Latin America and the Caribbean exceeds by far both the population growth rate and of registered weather-related disasters (Chart 4).

Chart 4
Trend scenarios of climatic disasters, victims and population in Central America



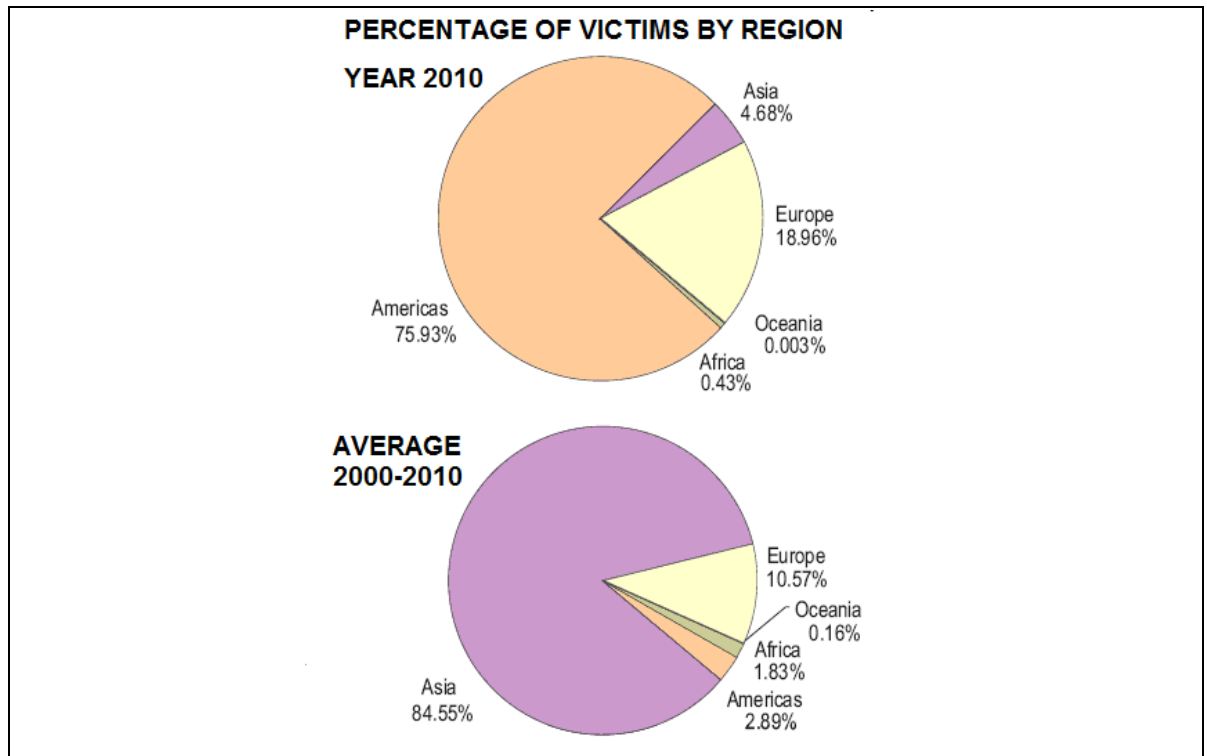
Comparison with population growth trends, growth trends in the number of weather-related disasters and the trend in the number of victims caused by such disasters in Central America.

(Source: CRED database of EM-DAT. International Disaster Database, www.emdat.be)

Finally, it should be noted that the trend towards aggravated impact of disasters in Latin America and the Caribbean, far from being limited to weather-related disasters, also extends to the context of geological disasters caused by seismic and/or volcanic activity in the region. A clear proof of this is the fact that global statistics in 2009-2010 (Chart 5) indicate that Latin American and Caribbean countries top the lists of the countries most badly affected by earthquakes, both in terms of their death tolls (Haiti earthquake,² with 222,570 deaths) and in terms of economic losses (Chile earthquake, with US\$ 30 billion losses).

² On 12 January 2011, the Prime Minister of Haiti presented updated figures on the damages suffered by the country as a result of the earthquake, which raised the death toll to a total of 316,000. This figure is still subject to validation by the CRED (EM-DAT), from which we are taking the data quoted in this document.

Chart 5
Annual number of natural disasters



(Source: CRED database of EM-DAT: International Disaster Database, www.emdat.be)

For some decades now, this and other studies³ have suggested that the reasons for the aggravation of the consequences of disasters in Latin America and the Caribbean are the result of far less evident factors than the increase in the number and/or severity of the trigger events that have been recorded. The studies also suggest actions should be taken so as to start to identify, understand and deal with disasters in the region as a problem linked to the levels of vulnerability and unsustainability of the development models prevailing in the region.

³ In this connection, special mention should be made of the studies conducted by the Network for Social Studies on Disasters Prevention in Latin America (LaRed) (available at www.desenrredando.org).

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III. GROWTH OF CITIES AND INCREASE IN VULNERABILITY

Since 1990, a new approach to the problem of disasters has been gaining ground thanks to both the theoretical contributions of various regional studies on the issue and the abundant empirical evidence on risk conditions and the impact of disasters in Latin America and the Caribbean. This approach aims at understanding disasters as symptomatic manifestations of a particular way to conceive development in our region, which has led human settlements to become a threat to their surrounding environment and the surrounding environment to become a threat to human settlements at the same time.

The question arising from this peculiar way of understanding the problem of disasters seems to call for a new, quite different context in terms of its meaning and its approach. It requires a context for dealing with the issue of disaster issues from a perspective derived from a sort of opposition to the way this subject has been addressed thus far, whose foundations are found both in some formal studies on the subject of disasters and in the public opinions of non-specialized authors, which shed light on some disagreement about the way in which the problem of disasters is understood in many countries of the region.

A strongly-worded article illustrating the above is the one written a little over a decade ago by Julián Salas Serrano, Director of the Course on Cooperation for Development of Human Settlements in Developing Countries, of the Polytechnic University of Madrid, in the wake of the disaster that struck the northern coast of Venezuela in 1999, which reads:

It was not necessary to be a future teller to predict that in Venezuela – or in Peru, Ecuador and Guatemala – could occur, at any time, such a huge disaster as the one that has swept that country. The habitat situation in Latin America is really frightening. The latest survey conducted by the Economic Commission for Latin America and the Caribbean (ECLAC, 1996) estimated the housing deficit at nearly 28 million new houses, and indicated that more than 25 million houses are in extremely precarious conditions and need urgent restoration. More than 130 million Latin American citizens are homeless and many more live in low-cost “housing solutions” that are in permanent high-risk conditions.

Such view remains absolutely valid, and from this perspective it becomes apparent that the “unavoidable” character of “natural” disasters starts to be perceived in a different way, as we abandon the idea that such events “are natural” simply because they have their origin in nature, and begin to understand the term “natural” as a *natural and inevitable* consequence of our particular way to conceive and shape up our society, our economy as well as our settlements and links with the environment surrounding us.

It is also worthwhile noting how, from this perspective, the challenge of disaster reduction requires commitments from each and every one of the actors co-existing in the region, which must go beyond the joint design and coordination of protocols for preparedness and response to disasters that can be activated when an emergency arises – which far from being perceived as the result of a kind of “blind” and “ruthless” behaviour of nature, should be conceived as being due to social and institutional conditions, in both the public and private sectors, that exacerbate exposure to disasters day after day.

Probably, one of the elements that most badly affect the daily process of build-up of risks in society is the accelerated and inadequate urbanization process that characterizes the vast majority of the countries in our region. It is a factor that certainly weakens the capacity for sustainable management of human settlements and increases vulnerability

in our cities. It should be stressed that population growth and the urbanization process alone do not increase risks. Disaster risk emerges and/or increases only when such processes occur within the context of poor planning and lack of resources and capabilities to turn the phenomenon of human urbanization into advantages and opportunities (Table 1).

Table 1
Comparison of population growth rate and percentage of urban population,
1999 and 2015

POPULATION: GROWTH RATE AND URBAN POPULATION (1999)

1999	Total Population 1999 (millions)	Annual Population Growth Rate (%)	Urban Population (% of total)
Developing countries	4,609	1.9	38.9
Latin America and the Caribbean	494	2.0	74.9
World Total	5,862	1.6	46.5

Source: UNDP – HDR 2001

POPULATION: GROWTH RATE AND URBAN POPULATION (2015)

2015	Total Population 2015 (millions)	Annual Population Growth Rate (%)	Urban Population (% of total)
Developing countries	5,759	1.4	47.6
Latin America and the Caribbean	611	1.3	79.9
World Total	7,048	1.2	53.2

Source: UNDP – HDR 2001

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IV. FROM ADMINISTRATION OF DISASTERS TO RISK MANAGEMENT

Regardless of other initiatives that could be mentioned, the approval of Declaration 44/236 (1989) by the international community at the United Nations set an important landmark in recent decades in promoting disaster reduction. Such Decision established disaster risk reduction as a global goal during the decade 1990-2000, through coordinated international action, so as to reduce losses of lives, damage to property and economic and social problems caused by disasters. As a result of this initiative, the last decade of the last century was declared as the "International Decade for Natural Disaster Reduction" (IDNDR 1990-2000).

This declaration led to a massive institutional effort aimed at the issue of disasters and gave rise to the emergence of a number of institutions of all kinds, dedicated to the reduction disasters in the planet. However, in spite all the enthusiasm and drive during those years, an assessment of the results of the IDNDR pointed to a contradictory fact: regardless of the effort and investment made, the prevailing trend as regards the impact of disasters was exacerbating.

The frustration felt as regards this effort was clearly expressed in a speech delivered by then Secretary General of the United Nations, Mr. Kofi Annan, on 5 July 1999 during the closing of the International Decade for Natural Disaster Reduction at the International Conference Centre in Geneva. On that occasion, Annan made the following statement:

"As the International Decade for Natural Disaster Reduction (IDNDR) draws to a close we have achieved much, but we continue to confront major challenges. It is a tragic irony that 1998, the penultimate year of the Disaster Reduction Decade, was also a year in which natural disasters increased so dramatically. (...)

There have been major advances in scientific cooperation. Around the world, an interdisciplinary scientific community of meteorologists, geologists, seismologists and social scientists is working ever more cohesively. Despite its limited financial resources, IDNDR has also brought together governments, NGOs, other international organizations and the private sector to work with the scientific community on disaster reduction strategies. Much has been learned from the creative disaster prevention efforts of poor communities in developing countries. (...) And yet, we confront a paradox. Despite a decade of dedicated and creative effort by IDNDR and its collaborators, the number and cost of natural disasters continues to rise. (...)

The cost of weather-related disasters in 1998 alone exceeded the cost of all such disasters in the whole of the 1980s. Tens of thousands of mostly poor people have died. Tens of millions have been temporarily or permanently displaced. 1998 was, in fact, a truly disastrous year."

Finally, Mr. Annan concluded his speech by saying:

"The cost of disasters in the 1990s was some nine times higher than in the 1960s, and it is becoming increasingly clear that term 'natural' for such events is a misnomer. No doubt there will always be genuinely natural hazards – whether floods, droughts, storms or earthquakes. But today's disasters are sometimes manmade, and nearly always exacerbated by human action – or inaction. (...)

The humanitarian community does a remarkable job in responding to disasters. But the most important task in the medium and long term is to strengthen and broaden programmes which reduce the number and cost of disasters in the first place.

Prevention and mitigation are not only more humane than cure; they are also much cheaper. (...)The scientific community understands the importance of the connection between natural disasters, climate change, and land use. The challenge now is to communicate this understanding more effectively to citizens and policy makers. Prevention policy is too important to be left to governments and international agencies alone. That is a mistake. In order to succeed it must also engage civil society, the private sector and the media. We know what has to be done. What is now required is the political and social commitment to do it.

The contradictory results of the IDNDR 1990-2000 led the United Nations to extend in time its commitment to working in the field of disaster reduction. To this end, it created a permanent programme called the International Strategy for Disaster Reduction (ISDR). Unfortunately, it seems that once again the impacts of the major disasters registered during the first decade of this century (hurricane Katrina, the tsunami in South Asia, the earthquakes in Haiti, Chile and Japan, among others) dramatically surpass those of the major disasters recorded during the 1990s, evidencing the aggravation of the problem and making it more necessary than ever to face the challenge of promoting new and better practices for disaster risk reduction.

In the brief summary of the speech delivered by Kofi Annan, presented above, two relevant aspects for the purposes of this study should be highlighted. The first aspect is the call to involve all stakeholders (governments, international agencies, civil society, private sector, etc.) in this crusade. Such a call, far from being considered as a request for altruistic or philanthropic support for a cause that is foreign to them, should be made on the premise that it is advisable for each and every one of these actors to become engaged with this topic, because they could also be potential victims of future disasters.

The second aspect is the need to promote initiatives focusing on prevention and mitigation to address disaster risk as conditions for sustainable development. This is the only way to attack the causes of this problem, rather than just dealing with its consequences. This calls for undertaking actions that, in addition to providing for response mechanisms, also allow for encouraging a much more prospective and compensatory approach to disaster risk exposure (Lavell, 1994. 14).

V. THE ROLE OF THE PRIVATE SECTOR VIS-À-VIS DISASTERS: ACHIEVEMENTS AND CHALLENGES

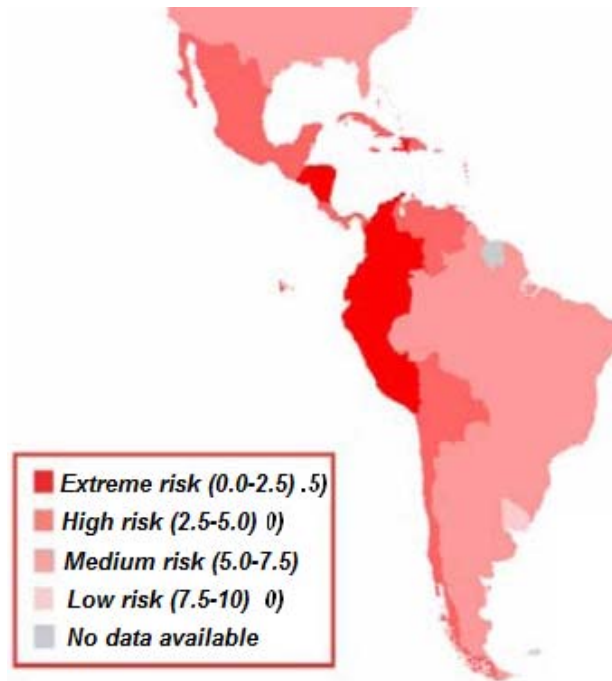
As mentioned above, major disaster-triggering events have occurred in the past in Latin America and the Caribbean. It should also be noted that many and very serious studies conducted at the regional level conclude that natural events (earthquakes, floods, hurricanes, landslides, among others) that have caused disasters in the past will continue to occur, because such events, far from being isolated and circumstantial phenomena, are part of the dynamics of the natural processes occurring in our region.

Moreover, it is also essential to understand that the consolidation of inadequate models for urban and rural development in the region has very seriously increased vulnerability in many of our countries. There are countless examples of large investments in infrastructure

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development of all kinds, both from public and private sources, which are characterized by being located in high-risk areas (areas subject to landslides, floods or high seismic activity, among others), or in areas that are not in condition to withstand an eventual natural events (Chart 6).

Chart 6:
Map of disaster risk levels in the region



(Source: Global map of natural disaster risk (available at <http://maps.maplecroft.com>)

With respect to the importance of this scenario for the private sector in the region, it must be noted that studies conducted in the United States by the Federal Emergency Management Agency (FEMA, quoted by DMA-PADF, 2008, 6) show that 40 percent of businesses that close because of a disaster never get to reopen. For another 25 percent it takes a period of one year to actually resume operations. In recent years, such figures have prompted many private stakeholders in the region to get involved and/or work with initiatives related to disaster risk reduction in their respective localities.

Before analyzing some of these cases of public-private cooperation, it is advisable to outline the type of actions that could be taken vis-à-vis the complex challenge in terms of coordination and implementation of efforts leads involved in disaster risk reduction, especially if it is understood as an essential conditioning factor for sustainable development. In this connection, it is useful to present the proposal made by Cardona (Cardona 2001, 35), who suggested that the holistic approach towards disaster risk problems requires undertaking actions in four key areas:

- i) **Risk identification and characterization:** Focused on efforts to gain detailed knowledge about the levels of threat and vulnerability to which an area can be exposed.

- ii) Risk prevention and mitigation:* Centred on the design and implementation of measures to avoid exposure of new developments to threats (prospective treatment) and reduce levels of vulnerability of existing developments with known risk levels (compensatory treatment).
- iii) Preparedness to disaster scenarios:* Focused on strengthening operational capacities and inter-institutional coordination so as to ensure a prompt and efficient response to disasters.
- iv) Risk transfer:* Centred on promoting the transfer of the financial risk involved in the potential loss of property that might occur in case of a disaster, by implementing insurance and reinsurance policies.

Based on these four main lines of action, it is possible to categorize the efforts being made at present, or that might be developed in the future, in order to reduce disaster risk. Thus, on the basis of that scheme, an assessment will be made of some regional experiences of interest that have involved the private sector in the challenge of disaster risk reduction.

VI. RESPONSE OF THE PRIVATE SECTOR TO DISASTERS: ACHIEVEMENTS, CHALLENGES AND EXPERIENCES OF INTEREST

Undoubtedly, the first and largest area where there is clear evidence of the support that the private sector lends for disaster reduction is the massive solidarity and support that it commonly provides when an adverse event occurs. As a matter of fact, at present, any Internet search referred to the support that private companies provide to victims of disasters yields millions of results,⁴ which illustrates that the private sector, like all sectors of society, shows solidarity in face of human suffering caused by disasters.

Obviously, the most common of these expressions of solidarity and support from the private sector is the emergency aid provided to the country or region where the private actor carries out its operations. Below there are some examples that illustrate the nature and modalities of such support:

⁴ See http://www.google.co.ve/search?sourceid=navclient&hl=es&ie=UTF-8&rlz=1T4ADSA_esVE413VE415&q=desastre+solidaridad+empresa+privada#hl=es&pg=empresa%20dona%20v%C3%ADctimas%20del%20desastre%20vargas&xhr=t&q=empresa+dona+damnificados&cp=26&pf=p&scient=psy&rlz=1T4ADSA_esVE413VE415&source=hp&aq=f&aql=&aql=&oq=empresa+dona+damnificados+&pbx=1&fp=6fb816bf1770f94e&biw=1680&bih=813&bs=1

Algarra donates milk to disaster victims

(available at <http://www.portafolio.co/archivo/documento/DR-18561>)

Bogotá, 21 June 2011 – A total 25,000 bags of milk have been delivered by the dairy product company Algarra to the support program *Colombia Humanitaria*, with the purpose of reaching out to those affected by the recent heavy rains. The donation was officially delivered during a ceremony with the participation of the company's manager, Antonio Botero, and representatives of Colombia Humanitaria. The bags of milk be printed the motto "We're With You!" and will be delivered in the communities of Ubaté, Mosquera and Fúquene Utica, among other towns in the Colombian central region known as Altiplano Cundiboyacense. Referring to the donation, Botero said that Algarra employees contributed 43 percent of it, underscoring that 90 percent of the employees participated in the operation. Another 10 percent of participants came from among the milk producers of the areas where the donation is being collected. "Some of our suppliers of raw materials such as cardboard boxes, such as Industrial Packaging, also made donations," Botero said. Forty-seven percent of the donation was made by Algarra in kind, since it contributed the raw material (milk), labour force and the industrial manufacturing process.

Bolivia: Private company donates water purification filters to produce 250,000 litres for disaster victims

(available at <http://reliefweb.int/node/227982>)

La Paz, 7 March (ABI) – For the benefit of those affected by natural disasters in the Beni Department, representatives of the company A & A Associates, Julio Alfred Casab and Percy Urdininea, have donated water treatment and purification systems that can produce up to 250,000 litres.

These small portable units can purify water from various sources such as rivers, lakes and water streams, and can be used for various purposes. Any residual odour or taste is removed thanks to a built-in carbon-activated cooler. These units, which require little maintenance, are characterized by the use of a very effective resin capable of destroying large concentrations of bacteria and viruses, including those that cause gastroenteritis. Thus, they destroy cells of microbes carried in the water, which can provoke many diseases and even death.

Business manager Urdininea said that according to initial estimates, the donation will help the affected population to have safe drinking water for one month, adding that in case the lack of water supply continued to affect the population another purifier would be donated. Urdininea pointed out that he delivered the donation to the authorities of the Beni Department with a commitment to deliver another one in case the emergency continues.

Solidarity Campaign with victims of the phenomenon of El Niño

(Available at <http://elinformatorio.blogspot.com/2011/03/solidaridad-telefonica-y-movistar.html>)

Lima, June 1998 – The "El Niño Solidarity Campaign", promoted by the Telefónica Perú Foundation, is a joint initiative of private companies with the main mass media of Peru, which started in February 1998 with the purpose of undertaking a large-scale crusade of solidarity for the benefit of those affected by the El Niño phenomenon.

Since then, it has become a campaign that provides, through its committee, donated houses located in various cities of Peru.

The coordination office was established with contribution from Telefónica, which also provided much field support. The project has handed over approximately one thousand homes.

There are many outstanding examples across the region that suggest how, for some time now, such private solidarity has started to blur national borders in Latin America and the Caribbean,⁵ by effectively acting by means of multinational cooperation mechanisms, both on a permanent or a temporary basis, which are being implemented either through government and inter-regional agencies, or non-governmental organizations engaged in humanitarian aid.

Mexican enterprise donates food for Chilean victims

(available at <http://www.publimetro.com.mx/noticias/dona-empresa-mexicana-alimentos-para-damnificados-chilenos/njek!uMmgRgoNPcJ4Hs8vEenccA/>)

Mexico; March 2011 – The Ambassador of Mexico to Chile, Mario Leal, and the representative of the Mexican company *La Costeña para Sudamérica*, Santiago Villanueva, delivered packaged foods to the Chilean charity *Hogar de Cristo*.

The donation consisted of two thousand cases of canned peaches in syrup for the victims of the earthquake that struck south-central Chile on February 27, and was received by the Executive Director of *Hogar de Cristo*, Susana Tonda.

“Mexico has always shown its willingness to assist Chile and what better opportunity than this, when so many Chileans are suffering the consequences of the earthquake of 27 February,” said Ambassador Leal. He considered that “it is an honour that a Mexican company such as La Costeña has decided to make a contribution and channel it through this institution (*Hogar de Cristo*), which has done so much good to many Chileans.”

On behalf of La Costeña – a company with operations in Chile for eight years now – Villanueva said that the initiative in favour of the victims is in line with the company’s policy of solidarity. “We had to make a contribution to help the people who have suffered so much with the earthquake,” said Villanueva, who also thanked the participation of the Embassy of Mexico in Chile to materialize the donation.

Walmart lends supports in face of natural disasters

(available at http://www.walmartmexico.com.mx/apoyo_desastres.html)

Walmart Mexico and Central America and the Walmart Mexico Foundation are supporting the victims of natural disasters according to their magnitude. Our goal is to provide support to the victims of natural disaster in less than 12 hours.

In Mexico, we channel our assistance through the food storage centre of the Revolving Fund available to the Mexican Red Cross. This foundation counts of 5,000 food packages ready to be delivered in coordination with it and the United Nations Program for Development (UNDP). We set in operation Walmart’s bank account 111 to receive donations, activate collection centres at participating stores, and install kitchens in shelters in order to provide hot meals to disaster victims.

⁵ A remarkable indication that this type of support is becoming more common is the fact that regional telephone companies have been offering very low-cost or even free of charge communication services to communities in the world that have been affected by disasters (an example of this can be seen at: <http://elinformatorio.blogspot.com/2011/03/solidaridad-telefonica-y-movistar.html>).

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Throughout the region, we channel funds to reactivate the devastated economies, and call on volunteers to perform tasks associated with the selection, arrangement and assembly of food packages.

These examples⁶ represent only a small demonstration of both the social commitment and the solidarity spirit that prevails in most private stakeholders in the region in situations of disaster. The pending challenge is to identify mechanisms that allow for the capacities, experiences and strengths of the private sector to be activated not only in responding to disasters, but also in promoting better and more sustainable development practices to prevent disaster risk scenarios from further aggravating in the region.

VII. PREPAREDNESS OF THE PRIVATE SECTOR TO FACE DISASTERS: ACHIEVEMENTS, CHALLENGES AND EXPERIENCES OF INTEREST

While acknowledging the praiseworthy examples of post-disaster solidarity that the private sector uses to provide, it is important to remember that the efficiency of any humanitarian aid is directly proportional to the previous level of preparedness and coordination among donors and recipients of such assistance.⁷

This has led the region to start undertaking various initiatives to strengthen the capacities of the private sector as regards preparedness and response to disasters. Many of those initiatives are sponsored or encouraged by multilateral institutions such as OFDA/USAID, the International Red Cross, and even by UN agencies (PAHO/WHO, UNICEF, WFP, OCHA, and UNDP, among others).

In this connection, probably one of the most interesting initiatives is the Disaster Management Alliance (DMA), an action network operating in Latin America and the Caribbean to “promote the integration of the private sector in disaster preparedness and management and risk reduction” (*sic*). DMA promotes various activities including the establishment of committees for risk management and business continuity, as well as the design of protocols to structure integration of the private sector into the local response that may be required in case of a disaster (DMA, 2008, 12).

“Wal-Mart has been an instrumental partner for CNE (National Commission for Risk Prevention and Emergency Response) in Costa Rica. It offered its logistics capacity to provide support to the CNE in risk management. The CNE hands out to Wal-Mart a list of needs and then purchases the packages from Wal-Mart. Within 24 hours, Wal-Mart produces the packages and in 48 hours they are distributed to the neediest sectors in the country.”

Jessika Brenes, Coordinator of the Committee for Risk Management and Business Continuity of AmCham Costa Rica

⁶ Other examples of interest worth mentioning in this regard are the commitments taken on by representatives of the private sector, both in the regional platform of the Americas held in Mexico (available at <http://www.eird.org/plataforma-2011/docs/16demarzo/RRD-sector-privado-16-de-marzo/7-Conclusiones-privados.doc>) and in the 2011 Global Platform for Disaster Reduction held in Geneva in May 2011 (available at <http://www.preventionweb.net/globalplatform/2011/>).

⁷ In this connection, worth mention should be made of the work carried out by the PAHO-WHO and the contributions of numerous agencies devoted to humanitarian health. (See: <http://www.paho.org/spanish/ped/pedhumes.pdf>)

Table 2 shows some interesting selected experiences which suggest progress in the search for better mechanisms of public-private cooperation for strengthening disaster response capabilities.

Apart from the efforts mentioned above, there are some tools that have been placed at the service of the private sector for the purpose of guiding the support that these agencies could provide in case of a disaster. One such tool is the network Aidmatrix (<http://aidmatrix.org>), originally developed with funding from FEMA, Accenture, and I2 Corp – among others – which is currently a widely used platform in the United States. This tool has been described by the Secretary of the U.S. Department of Homeland Security, as an “e-Bay” to respond to natural disasters by connecting resources with needs.

This latter tool is welcomed by the companies because the chain supply technology allows them for offering volunteer aid, as well as assistance in cash and in kind available. If the donation of a company is approved by the authorities, the offer is announced and it can be accepted by the government and NGOs to be used virtually immediately. Aidmatrix has not only changed the way in which the United States becomes involved with the private sector and NGOs in case of disasters. The 28 member nations of NATO have just joined the network, and in our region countries such as Honduras⁸ have applied it as part of their disaster response protocols.

Another popular tool in the region is the Logistics Support System (LSS/SUMA), which is a programme for inventory management that can be used by the food storage centres of companies for free. It serves to help the authorities to report important details about the existing needs in the impact area. The system only needs a computer with Internet access for companies of any size to become familiar with its operation and optimize their inventory management and assistance to the authorities.

The LSS / SUMA system was developed by several countries, NGOs and six UN agencies. It has become an important contribution for transparency in the management of humanitarian resources and communication among donors, authorities, humanitarian agencies and the mass media in case of disasters (www.lssweb.net).

⁸ For a vision of Honduras' experience with Aidmatrix, see:
www.aidmatrixnetwork.org/LatinAmerica/States.aspx?ST=COPECO.

Table 2
SOME PUBLIC-PRIVATE COOPERATION EXPERIENCES
ON PREPAREDNESS ISSUES IN CASE OF DISASTERS

Country	Experience
Costa Rica	The private sector and the authorities for emergency management in Costa Rica established a mutually beneficial relationship that was signed into law. This legislation provides for the National Commission for Risk Prevention and Emergency Response (CNE) to work jointly with the private sector as regards preparedness and response to disasters.
Colombia	With the support of DMA, some industrial parks in Colombia have been organizing a sort of “business Red Cross” to meet those needs that public authorities cannot handle. An example of this is the collaboration between Merck and the Mutual Aid Committee in Bogotá. For years now, they have undertaken initiatives and helping other industrial sectors to learn from their experience.
Costa Rica	The AmCham in Costa and its private sector partners, mainly Del Oro SA, work together to achieve public sector investment in infrastructure, community training on disaster preparedness, emergency drills and plans, and other actions that have benefited communities in the Santa Cecilia sector, near the border with Nicaragua. The Committee for Risk Management and Business Continuity of AmCham Costa Rica was the first one in the following areas: being self-sufficient by offering training and other activities; establishing its own Web site; and signing a platform agreement for cooperation with the National Commission for Risk Prevention and Emergency Response (CNE).
Honduras	The Committee for Risk Management and Business Continuity of AmCham Honduras has set records as regards: i) Number of initiatives for vulnerability reduction in communities with corporate support, engaging the majority of the members of the AmCham Board and staff; and ii) It was the first entity in Honduras to sign a comprehensive public-private platform agreement for disaster response with national authorities (COPECO) and the largest private sector platform (COHEP).
Mexico	Walmart Mexico channels funds to reactivate economies devastated by disasters, and promotes groups of volunteers to perform tasks associated with the selection, arrangement and assembly of food packages. Its most outstanding disaster preparedness efforts in 2010 include: i) In Mexico, Walmart forged alliances with companies such as Nextel and Grupo Radio Centro in order to achieve greater reach and impact in supporting disaster victims. ii) Walmart launched in Guatemala and Costa Rica the campaigns <i>Manos Amigas</i> and <i>Mano a Mano</i> , inviting clients to help the victims of Tropical Storm Agatha, which struck Guatemala, El Salvador and Nicaragua, the eruption of the Pacaya volcano in Guatemala, Tropical Storm Thomas, which slashed Costa Rica. iii) Walmart provided support to the victims of the earthquakes in Haiti and Chile. In Mexico, it provided aid and resources to the people affected by the earthquake in Mexicali, as well as those affected by the floods in Mexico City, Mexico State and Michoacán; the explosion in the municipal garbage dump in Chimalhuacan, Mexico State; Hurricane Alex in Nuevo Leon, Tamaulipas and Coahuila; and the floods in Veracruz, Oaxaca and Tabasco; as well as the victims of an explosion in Puebla.

(Source: DMA, 2008).

All experiments described above seem to have in common the notion that the support provided by the private sector for disaster preparedness is of a philanthropic nature and that it is conceived as a donor-recipient, uni-directional relation. From this perspective, the effort that private entities should make for disaster preparedness should be basically aimed at ensuring that such solidarity is developed in an efficient way. However, it is worth noting that such preparedness actions can also have impacts and benefits for the private

sector, which could be carrying out (often unknowingly) economic activities in areas at risk of disasters, and could also be a victim of both the direct consequences of a disaster and those stemming from institutional weaknesses, lack of organization and/or lack of response protocols that could safeguard private property when an adverse event occurs.

“Companies can build local capacity by sponsoring training of individuals in first-response institutions (such as fire departments, Red Cross, Civil Defence and others), thereby complying in part with the requirements of the CSR strategy (corporate social responsibility).”

Fabián Arellano, Technical Manager,
U.S. Office of Foreign Disaster Assistance (OFDA)

Chile's experience

On Saturday 27 February 2010, at 3:30 am, Chile was violently struck by an earthquake measuring 8.8 on the Richter scale – the largest ever recorded at that time in the last 50 years on the planet and the fifth highest in the last 1,200 years, according to the U.S. Geological Survey. Its shockwaves affected over 300 kilometres of the country's coastline slashing five cities with over 100,000 inhabitants and another forty-five cities with more than 5,000 people. EM-DAT data indicate that more than 500 people were killed. More than 50,000 families were left homeless and some 200,000 homes were severely damaged.

However, the earthquake in Chile was certainly an example to the world of the success of the building standards and urban security policies implemented by the Chileans based on the lessons learned from similar events that they lived in the recent past.⁹ Thanks to such policy, a massive earthquake with the potential to generate tens or even hundreds of thousands deaths in any of our countries made only a few buildings collapse, which resulted in relatively lower levels of mortality.

Without underestimating the achievements mentioned above, the earthquake was a very important lesson for Chile and the entire region, in terms of the aspects to be strengthened as regards disaster preparedness and response. Many of those aspects have been analyzed in various documents; however it was deemed necessary to mention an article entitled “12 Lessons from Chile”, written by Mr. Sergio Bitar, who held the post of Minister of Public Works of Chile at the time of the earthquake (Bitar, 2010, 7).

The following are excerpts of interest from that article:

- i) *“It is essential to maintain public order so as to respond quickly to the urgent needs for health care, food, clothes, fuel, restoration of basic services, and – in the next few days – removal of debris.”*
- ii) *“In Concepción, a few hours after the earthquake, the police were overwhelmed by rioters who started a looting wave that raised fears among the population and the crews that were working to restore basic services. A review of the earthquakes that have occurred in Chile and the world in general reveals a common pattern: When there is a power vacuum, an abrupt, almost unconscious, change can emerge in the individual and social behaviour, unleashing looting and robbery waves among neighbours and decent people. This has also happened in other cases of major disasters, such as the recent earthquake in New Zealand.”*

⁹ For instance, the lessons learned with the earthquake that struck Valdivia in 1960.

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- iii) *"The looting in Concepcion was shocking, and many persons returned the goods that they had taken after being warned, some days later, that their houses would be searched by the police. Some people even reported they were caught up in some sort of collective madness, and felt sorry for what they had done."*
- iv) *"The immediate emergency – which is a critical moment in a natural disaster – requires strengthening the response capacity of private companies that provide basic public services. Those companies had no contingency plans, and – in many cases – they took too long to respond, while government authorities assumed the responsibility but with very little capacity to have an influence on the private sector's decisions."*

Based on the above, it is worth reflecting on the issue of post-disaster looting, the reasons why it happened and the actions could be taken by the private sector in order to minimize the chances for such social behaviour to emerge.

It has been suggested (Linayo 2011, 22) that, without downplaying the seriousness of vandalism and looting, an authentic driving force for such social responses is the genuine need and instinct for survival that prevails among people affected by disasters, regardless of their social status.

Any person affected by an event that suddenly breaks the established channels to meet his or her basic needs (water, food, shelter, etc.) will respect public order to a certain extent, and from there on that person will struggle to get whatever he can get, in any place and by any way. There's no need to be very sharp to guess that people are not going to stand actionless if they are hungry and have no food knowing that the supermarket on the corner is full of foodstuff, to which they have no access just because the owner refused to open its doors, probably out of fear.¹⁰

This reality calls for changes in the way of dealing with the issue of humanitarian aid during disasters. It is necessary to promote protocols whereby, in case of disaster, the owners of those food stores can make available their goods to the authorities, **prior clearly-established agreements**, in order to implement controlled mechanisms to provide the population with those supplies. Obviously, the State must commit itself to reinstate such stocks.



¹⁰ In the case of sellers of non-durable goods, sometimes they prefer to waste them in view of the usual energy cuts that affect their storage and refrigeration capacity.

By achieving this type of “organized plunder” it would be possible to speed up the delivery of aid (because instead of mobilizing hundreds of tons to the affected areas existing stocks would be initially used). It would also prevent the destruction of facilities commonly associated with lootings (which sometimes causes damages as serious as the loss of stocks). In addition, it would incorporate the private sector (factories, warehouses and stores) in the management of a scenario that should definitely be addressed by all local stakeholders involved.

Of course, the implementation of such disaster preparedness mechanisms calls for substantial coordination efforts between the public and private sectors, as well as the development of strong professional competences by local civil defence and protection existing in the region. Unfortunately – and ironically – in spite of the great importance of these institutions at present, the regional academic programmes focused on the training of professionals holding such positions are still incipient.

This reality contradicts the fact that at present disaster management is a subject of enormous technical complexity, and therefore requires a training effort similar to that of doctors, engineers or teachers. Unfortunately, unlike those cases, officially recognized academic programmes accrediting professionals in this relevant area are virtually non-existent in the region. These officials, who usually show a commendable spirit of solidarity, must “train themselves” by taking courses here and there, some of which are very good but other are not. This is a very inefficient and dangerous mechanism which should be subject to the attention of higher education policy makers in the region.

In this training challenge the private sector could also make substantial contributions to assist in disaster risk reduction, not only by promoting this type of training initiatives, but also by transferring their huge capacity to operate in real time and to find solutions to the problems affecting productivity and employees, while taking into account the scarcity of resources. Companies know how to apply rigorous security criteria and can suggest guidelines to promptly act in responding to any emergency or disaster.

VIII. RISK PREVENTION AND MITIGATION: ACHIEVEMENTS, CHALLENGES AND EXPERIENCES OF INTEREST

The most important challenge that should be promoted in the public-private partnership for disaster risk reduction is to stop limiting the actions surrounding the preparation and response to disasters and start working on corrective and/or preventive initiatives focused on changing the conditions leading to disasters in order to ensure that they do not occur again, instead of analyzing the conditions before, during and after disasters.

In this connection, the Network for Social Studies on Disaster Prevention in Latin America (LARED) states that most efforts to reduce disasters in Latin America and the Caribbean are focused on assistance in the wake of disasters, followed by programmes and projects for post-disaster reconstruction. In this context, measures to reduce vulnerability and risks before disasters are still very incipient, which brings about that the ongoing effort, particularly among private sector actors, continues to focus on less profitable tasks than those making up the framework of actions for disaster risk reduction.

For the private sector, which has always been an important sector with significant strengths in calculation and decision making where the cost-benefit relationship could be optimized, the options available today to promote prevention and mitigation of risks are very few, and this is a reality that must be modified by those who promote more efficient ways of linking public and private sectors for disaster reduction in our region.

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In order to suggest lines of action that should be followed by the private sector to ensure their participation in the prevention and mitigation of disasters, three main proposals could be taken into account: i) **Efforts focused on characterizing the risk**, particularly in those areas where the private actor operates; ii) **efforts to prevent adverse events**, focused on providing the private actors with tools to incorporate the threat criteria in the selection of places where their facilities should operate; and iii) **efforts focused on risk mitigation**, focused on promoting measures to reduce risks to infrastructures that could be of special interest to the private actor.

For the purpose of illustrating some interesting experiences in this regard, the last of these three strategies, related to the structural risk mitigation, will be dealt with. Emphasis will be made on the regionally widespread seismic hazard and the way this threat is translated into the security level of operations the private actor can assume with respect to facilities where operations are carried out.

Usually, the guarantee provided to the owner of an infrastructure is based on the security standards that building codes should provide. However, it is often unknown that building codes are essentially designed to protect the safety of human life instead of the property security or business continuity. During a strong earthquake, buildings are expected to survive, but damage to buildings could be not repairable or very severe. The interruption of business and operations or damage to equipment and architectural elements are not taken into account.

In addition, when assessing these risks, emphasis should be made not only on building contents and equipment, but also on the costs associated with business interruption and loss of market share. These numbers add up quickly and make a convincing argument for business continuity planning and disaster risk reduction to promote investment opportunities in strengthening and mitigating risks and to provide the private actor with higher levels of security for their assets than those provided by the building codes in each area.

As an example of this, it is worth mentioning one of hundreds experiences in reinforcing facilities of the private sector, implemented by the company Miyamoto International, which illustrate, even from the perspective of economic and social costs, what does “to do nothing” mean when mitigating the impact of disasters (available at: www.miyamotointernational.com).

Case study: Multinational food facility before the 1994 earthquake in Los Angeles

- **Facility value:** US\$1.3 billion in 1993
- **Location:** Los Angeles, in epicentre area surrounded – post earthquake – by severely damaged or destroyed buildings
- **Original construction:** 1954
- **Potential business interruption:** Up to 18 months

* **Before:** Prior to the earthquake, a risk audit was conducted and some buildings were recommended for further review. The building deficiency report revealed that they had a probable maximum loss of over 50 percent due to inadequate wall anchors and shear walls 40 percent overstressed. The potential consequences were partial collapse and extensive cracking leading to loss of use. The cost-benefit analysis showed that the best option would reduce the potential for business interruption to less than a week. The business decided to retrofit according to the recommendations of the audit.

* **After:** In 1994, the massive Northridge earthquake struck the area. Post earthquake actual damages reflected a 75 to 1 benefit-cost ratio and only a 4-day business interruption. The company estimates that it avoided US\$ 350 million in damages and US\$ 400 million in business interruption. When considering the potential for loss of market share, the total estimate for losses avoided is US\$ 1+ billion. The total cost of retrofitting was about US\$ 10 million.

Such experiences suggest that all information on potential threats and risks of disasters are relevant to corporate viability and should be used to set priorities when allocating budgets and promoting private investments. The strategic investment planning requires the private actor to know the macro setting where it operates, and this implies the full characterization of disaster risk levels that could jeopardize the sustainability of its company, its value chain, its employees and its community.

IX. A LOOK AT BUSINESS CONTINUITY AND INSURANCE POLICIES

As mentioned before, studies carried out in the United States (FEMA cited by AMD-PADF, 2008, 6) show that 40 percent of businesses that close following a natural disaster never reopen. Another 25 percent of those that do reopen close within one year. These studies also suggest that every dollar spent on disaster mitigation saves the society US\$ 4. Considering these values, it is not difficult to infer that disaster risk reduction is fundamental and necessary for a viable business practice and also contributes to the development of stable communities and sustainable development.

“There is no business continuity when employees are stuck in a shelter.”
Daniel Gallardo, President of the National Commission
for Risk Prevention and Emergency Response (CNE) Costa Rica

Some private actors often tend to protect their safety in case of a disaster through the purchase of insurance policies to transfer their financial risks to insurance and reinsurance companies. In fact, very interesting initiatives are being promoted in our hemisphere in this regard.¹¹ However, while recognizing the importance of these initiatives, it is useful to know in detail the characteristics of the coverage commonly used in these cases.

Usually, it is uncommon for an insurance policy to cover losses caused by business interruption. One might wonder what impact have some factors – such as the lack of Internet, telecommunications or other utilities – on the operation of a business not directly affected by a disaster. Other factors might include the fact of running out of suppliers, or the destruction or isolation of the community where their employees live.

We are often unaware that the mortgage insurance only supports the remaining balance of the loan. This means that, if no additional insurance policy is available, the capital and other investments of the private stakeholder could be lost following a disaster. It should also be considered that, from the amount to be provided by the insurance company in these cases, it might be necessary to calculate the deductible. Moreover, the depreciation considered by some companies may reach up to US\$ 1 million or more per building.

¹¹ Among some experiences that stand out in this regard are those promoted by the CCRIF - CaribRM, CIPET and Sancor Insurance from Argentina and GlobalAgRisk from the United States, among others.

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Finally, an argument that calls for reflection and diversification of actions being developed by the private sector in terms of preventing and mitigating disaster risks appears in the following reflection:

“The first condition for an insurance claim following an earthquake is to ensure that the earthquake does not kill us.”

Diana Vilera, Sustainable Development Manager of
TOTAL Oil and Gas - Venezuela

X. SOME REMARKS FROM THE STANDPOINT OF CORPORATE SOCIAL RESPONSIBILITY

Corporate social responsibility (CSR) is a concept open to many interpretations that has been promoted to encourage the private sector commitment to the social and institutional development of its environment. On this principle of action the United Nations states the following:

“The social responsibility of the private sector goes beyond the sector’s day-to-day operation of producing a certain range of products and services in the most efficient and economical manner. The social responsibility of the private sector concerns the relationships of a company not just with its clients, suppliers and employees, but also with other groups, and with the needs, values and goals of the society in which it operates. All these groups can be regarded as stakeholders in the company. Stakeholders can be identified as those individuals or groups of individuals that have an interest, or take an interest, in the behaviour of the company both within and outside its normal mode of operation.”

The practical application of this principle suggests that it should be seen as a continuum in which there is no neat dividing line between its different elements or between them and the commercial work of the company (Twigg, 2001, 32). Following are three broad areas of action in which corporate social responsibility should enhance its work:

- i) Compliance with legal and regulatory frameworks, regulations, agreements and standards established for operation by both local and national and international authorities.
- ii) Minimisation of socio-economic, political and environmental impacts on its environment, particularly those that might result from the operations of the company.
- iii) Creation of aggregate social value in its environment, which may result in the institutional and/or social strengthening of capacities to improve the quality of life of its environment.

These three principles have adopted particular characteristics in view of the current global environmental crisis, whose dimensions are of increasing concern. This is a crisis whose root causes are associated with the “bad marriage” between humanity and its environment, which can be seen in countless examples of human activities that, far from facilitating our coexistence with the natural environment around us, lead us away from the balance that prevents the natural and human from becoming enemies and destroying each other.

The fact that the impact of the aforementioned imbalance results in more and worse socio-natural disasters should represent, rather than a complaint, a call for action to the

private sector, particularly large companies and corporations, which should be characterized by a strong commitment and contributions to the promotion of human development in countries and regions where they operate. It is precisely on these efforts that the commitment to risk reduction should be based, in particular to questions like: How sustainable can be a local human development portfolio, whose products have the potential to vanish after a few hours of heavy rain or a few seconds of a moderate earthquake?

“The paradigm of corporate social responsibility has changed. Today it is not enough to benefit the community. You have to BE the community. This applies to both sides. If you are affected by a disaster, everyone is affected by the disaster and vice versa.”

Louis Alexander,
Senior Director of Programmes, PADF

XI. THE EXPERIENCE OF TOTAL OIL & GAS VENEZUELA:

Probably one of the most interesting experiences of private participation in promoting integrated disaster risk reduction and management in our region is being developed by the Sustainable Development Division of Total Oil & Gas Venezuela, the subsidiary of the French company TOTAL operating in Venezuela. This initiative was implemented in 2007, as a pilot project to support capacity building for disaster risk management in the Latin American country, and is based on the fact that risk management determines the sustainability of efforts made by the French company within the framework of its own productive operations and activities being sponsored as part of its agenda of investment in human development.

In addition to promoting the traditional activity of risk transfer, which is commonly implemented in this company and has meant the acquisition of several portfolios and levels of insurance coverage by Total Oil & Gas Venezuela to safeguard its interests financially to various adverse events that might arise, very important contributions and initiatives have been developed to strengthen preparedness-response capabilities of both social and institutional stakeholders coexisting in the spaces where this group has operations. Among the specific activities being implemented in this regard are the following:

- i) Support the provisioning of agencies for disaster preparedness and response with last generation equipment that enable them to get involved in search and rescue operations;
- ii) Support the ongoing training of civil protection officers and fire fighters on issues related to disaster preparedness and response;
- iii) Support the design of potential post-disaster damage scenarios within their areas of action (using computer simulation tools and geographic information technologies) in order to validate, based on these scenarios, protocols and action plans to be implemented by civil protection authorities in case of disasters;
- iv) Support the strengthening of academic initiatives aimed at professionalizing staff members working in disaster management institutions;
- v) Support initiatives to strengthen community-based disaster preparedness which are promoted by civil protection and disaster management authorities;
- vi) Contributions to the production of teaching support materials that are used in the “Aula Sísmica Amadeilis Guzmán” programme, intended for earthquake

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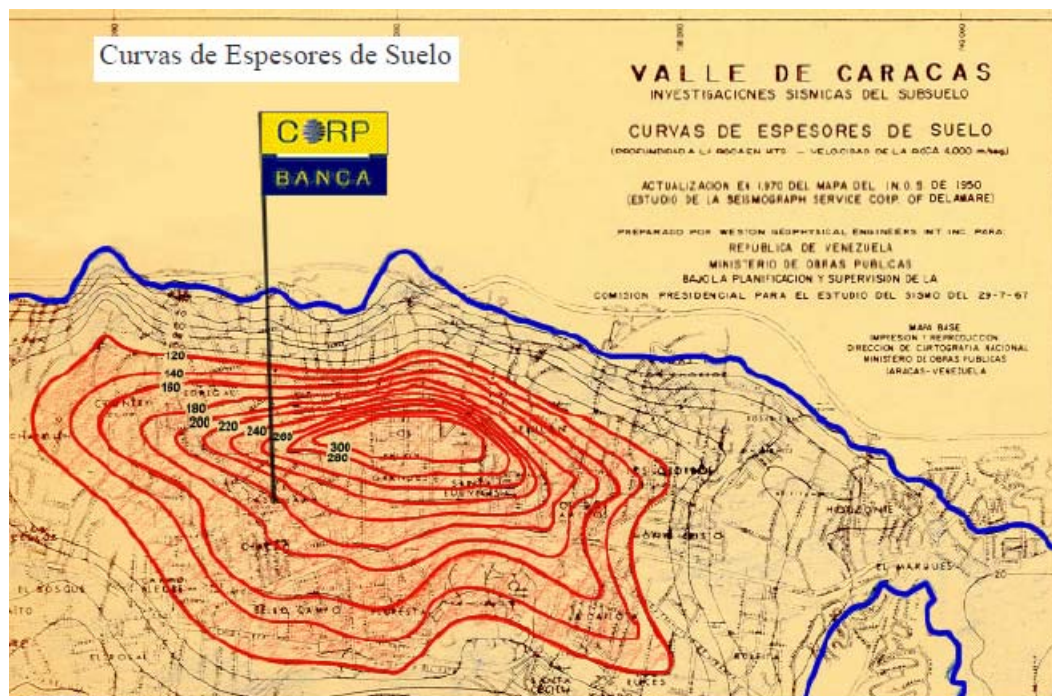
preparedness at schools and carried out by the Venezuelan Foundation for Seismological Research (FUNVISIS).

These are some examples of activities promoted by Total Oil & Gas to strengthen disaster preparedness and response capacities in the areas where it operates. A set of activities that are worth mentioning, far from being subject to unidirectional and non-committed financial contributions, have been constantly followed up by the company, not only to ensure the appropriate investment and achievement of goals and agreements but also to incorporate these capacities, tools and techniques into the internal disaster preparedness and response protocols that the company implements and continually updates as part of its on health, safety and environment policies.

While acknowledging the laudable character of this line of cooperation, it is almost certain that this experience is not different from similar initiatives in the region (particularly in Central America), which have been largely mentioned throughout this document. Without detracting from the importance of supporting disaster preparedness and response, the experience of Total Oil & Gas is truly innovative, considering the effort by this private actor to promote prospective and risk compensation actions.

In this connection, mention should be made of the contributions and efforts to consolidate microzonation studies on threats, the development of methodologies to characterize levels of reliability of earthquake proof buildings, the design of tools to turn results of available hazard microzonation studies into tools of public policies and local development, among others.

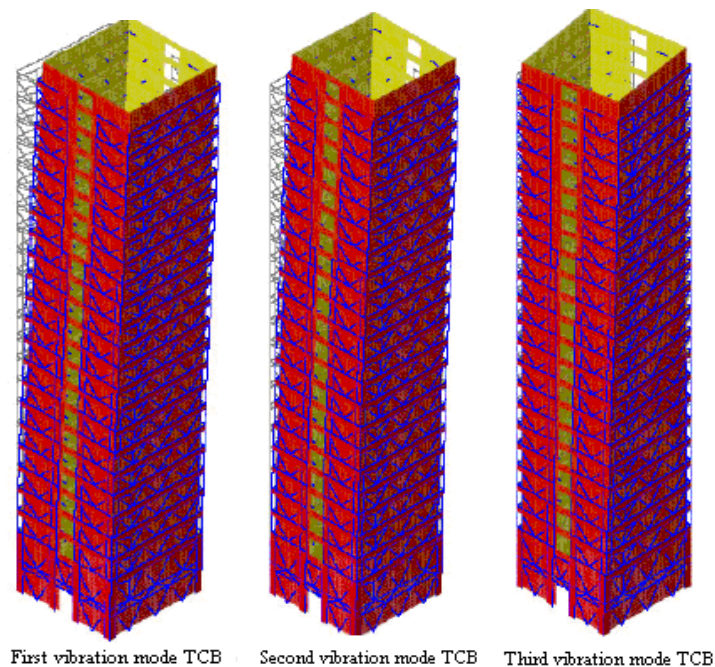
Chart 7:
Soil thickness within the Caracas valley



Source: Lobo O.

The results of this public-private cooperation effort, aimed at characterizing local risk levels and defining mechanisms for risk prevention and mitigation, have been for internal use by the company Total Oil & Gas Venezuela every time it requested detailed safety studies on its facilities, implemented measures to mitigate non-structural hazards, incorporated seismic safety criteria into the selection of urban spaces where its staff should be located (hotels, apartments and villas), among others.

Chart 8:
Values of structural vibration modes for the building Torre Corpbanca



Another example of Total Oil & Gas Venezuela's work towards promoting disaster risk reduction in the country is the cooperation and financing agreement between this company and the Disaster Risk Management Research Centre (CIGIR), a non-governmental non-profit organization that serves as a forum to promote and support cross-disciplinary projects aimed at finding and strengthening mechanisms for disaster risk management at the institutional level based on Venezuelan and Latin American reality (www.cigir.org).

During its first five years, the TOTAL-CIGIR agreement has consolidated a portfolio of 28 high-impact projects for applied research in areas related to disaster reduction in Venezuela, has entered into 15 cooperation agreements with local, national and international institutions, has trained about 400 professionals in various topics related to risk management and sustainability and has promoted the creation and strengthening of pioneering academic programmes, such as the Masters in Socio-Natural Risk Management at the University of Los Andes (ULA) and the University Training Programme in Emergency and Disaster Management of the Technological University Institute of Ejido. All these activities have been possible thanks to the efforts by a team of 80 senior researchers, distributed in different areas of the South American country, and the support

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of Total Oil & Gas Venezuela in order to consolidate achievements in a very important area which, paradoxically, has been little considered by the authorities responsible for sustainable development support in energy companies and other private stakeholders.

XII. CONCLUSIONS

The stronger the trend of worsening risk conditions and severe impact of disasters on Latin America and the Caribbean grows, the higher the interest of regional actors, from public and private sector, gets to promote best practices, make efforts and implement mechanisms for disaster risk reduction.

In this context, the initiative of the Permanent Secretariat of SELA to explore mechanisms and to identify and promote more and better ways of public-private cooperation for disaster risk reduction – adopted by consensus by regional institutions for disaster risk reduction in Latin America and the Caribbean – represents an issue of great importance. In addition, its impacts will be more promising, provided that it is widely understood that the private sector's involvement in risk management represents not only an opportunity for governments to cooperate, but also a wise and highly profitable investment for the Latin America and the Caribbean private sector.

According to the dominant paradigm about the role of the private sector in reducing disaster risk, involving companies in risk management is a strategy that benefits only governments, while it is easy to show (and there is abundant empirical evidence on this) that this type of alliance represents a window of opportunity for a “win-win” relationship between governments and their institutions on one hand, and business, commercial and economic representatives on the other. Therefore, if the private sector's philanthropic approach to selflessly support disaster reduction is left behind, it could be possible to promote more sustainable, widespread and efficient public-private cooperation practices for disaster risk management. This support is selfless due to both its altruism level and expectations of no return and to the indifference and the lack of connection warned by the private sector as to how this support could be used.

In this process of development and coordination of a discourse aimed at convincing the private sector representatives that investment and cooperation with government bodies in the area of risk management is a “good deal”, it will be essential to partner with private stakeholders that have had positive regional experiences in such partnerships. They will undoubtedly be the best representatives of the private sector, and therefore it is advisable for future regional meetings to present and discuss regional specific cases where both, government and private representatives, illustrate the mutual benefits of their joint work towards reducing disaster risk.

A very important aspect that has emerged from the inventory and analysis of experiences developed in this study is the fact that the private sector has accumulated an interesting experience of cooperation in the region to face disasters, which should be taken into account when designing future actions. This experience is mainly evidenced as the ongoing and future support of the private sector in cases of disaster. In addition, it is possible to identify different experiences in which public-private cooperation has facilitated disaster preparedness and response. However, insignificant regional advances have been made in efforts to promote public-private agreements aimed at boosting a prospective disaster risk management, more focused on an approach of sustainable development. In this connection, it is necessary for prevention and mitigation – as high-

yield strategies to face disaster risks – to be considered the priority goals of public-private coordination efforts in the future.

This recommendation does not neglect the support that should be given to initiatives that promote disaster preparedness-response. It is natural to think that the coordinated and consensual inclusion of the private sector in the institutional response to be given in cases of disasters is a very convenient strategy. However, it is essential to stress that, in terms of profitability/efficiency and business continuity, the best strategy that seems to suit the private sector is to support efforts that prevent risks and thus disasters.

As a way to systematize some of the most important approaches that have been referred to throughout these pages, ten aspects could serve as guidance to promote public-private cooperation for disaster risk reduction in Latin America and the Caribbean:

1.- Private cooperation has been a constant feature in disaster scenarios in our region over recent years. This presence has sometimes been possible even without institutional mediation, which shows the interest and solidarity of many of these actors in this area.

2.- Unfortunately, the circumstances in which the private support to this issue is evident show that disasters and their aftermath are still unavoidable, and in many cases even private actors with the best intentions promote initiatives that are poorly supported or not coordinated with institutional efforts, which undermines their effectiveness. This and other aspects stress the need to consolidate efforts to promote more efficient forms of private sector involvement in these cases.

3.- It is not possible to ignore the progress made at the regional level in terms of promoting participation and strengthening the private sector in disaster preparedness and response. Many of these initiatives have the support of various regional cooperation bodies and have even allowed the development of regional tools and methodologies of interest. However, further work is required in this matter, particularly as regards the need to optimize protocols for public-private cooperation to facilitate the coordinated use of available local capacities in cases of disasters.

4.- A priority area that should be dealt with in order to promote cooperation with the private sector is the unions that represent this sector and that, in our region, usually make up the Chambers of Commerce and Industry or their equivalent. In this connection, it is necessary to distinguish between the generic approach that should be given to the issue of disaster reduction in scenarios that bring together multisectoral private stakeholders (such as federations of national or regional chambers of commerce or AmCham's¹²) and the approach and nature of recommendations that could be suggested in specific sectoral spaces (chambers of telecommunications, construction, pharmaceuticals, chemicals, etc.). In these cases, the treatment measures to reduce disaster risk should be in line with the areas of activity and interests of their members.

5.- A fact that deserves special attention is the public-private cooperation area for disaster reduction that is less developed in the region, namely the promotion of joint initiatives aimed at risk prevention-mitigation. This fact is contradictory if we take into consideration that, according to all specialized institutions, the most efficient and cost effective way to face disaster risk is precisely prevention and mitigation. Moreover, if

¹² It refers to the chambers of commerce that the United States usually have in different countries. In this regard, it is worth mentioning the contribution being made to the issue of disaster preparedness in Central America and the Caribbean through initiatives such as the PADF's Disaster Management Alliance.

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anyone has demonstrated to know and successfully implement profitability/efficiency criteria is precisely the private sector.

6.- The lack of a commitment by the private sector to initiatives aimed at promoting a much more prospective and compensatory treatment of risk is due to the same reasons that make disasters to be dealt with, even in many of our countries, from a biased welfare and reactive approach. It is not possible to ask the private sector to implement practices that are ignored even by institutional actors. Hence the need to insist in all areas that prevention and mitigation should be promoted as strategies to prevent risks and thus disasters, at least with the harshness this reality is being revealed in our region.

7.- Recognizing that the lack of interest by the private sector in getting involved in risk prevention-mitigation activities reflects a lack of interest by regional institutional bodies in the same matter, efforts should be promoted that enable government actors to know, understand and promote mechanisms for the prospective and compensatory treatment of risks that are relevant to their respective realities. These efforts should be made by both officials of disaster management institutions and authorities responsible for sectoral development institutions.

8.- In line with this, it is necessary to stress the need to further develop regional efforts that promote academic professionalization of officials working in disaster management institutions, so that they have more and better tools to promote both risk prevention-mitigation and disaster preparedness-response. In this connection, it is of the utmost importance the cooperation to be provided by private equity foundations in the region, which are aimed at training human resources.

9.- We must demystify the prevailing idea that the contribution of the private sector to disaster reduction should exclusively focus on activities being developed by regional disaster management institutions. An additional and interesting cooperation area is the support to efforts aimed at characterizing risk scenarios,¹³ a product that is increasingly relevant and useful to the private actor when establishing investment priorities and developing strategies for business growth.

10.- Finally, it is necessary to promote permanent platforms that identify and boost best practices of public-private cooperation in the area of disaster risk reduction in the region, i.e., spaces that enable permanent exchanges of studies, information and experiences that serve as input and/or model for ongoing and future initiatives in this direction among the countries of Latin America and the Caribbean.

¹³ Emphasis should be made on the importance of characterization products to be presented in digestible terms for the purposes and uses the private actor deems more appropriate.

A N N E X I

**Progress in incorporating disaster risk reduction
into standards for management of private enterprises**

BACKGROUND

The International Organization for Standardization or ISO is an initiative that was created after the Second World War (specifically on 23 February 1947) with a view to becoming the organization responsible for promoting the development of international standards on manufacturing, trade and communication for practically all branches of the industrial and commercial activity (except for electricity and electronics). Its main function is to promote product and safety standards for companies and organizations worldwide.

Currently, ISO is a network of the national standards institutes of more than 160 countries, and has a Central Secretariat in Geneva (Switzerland) that coordinates the system. The International Organization for Standardization is made up of government and non-government delegations subdivided into a series of sectoral subcommittees that study and develop guidelines for the consolidation of productive and commercial best practices.

Standards developed by ISO are of voluntary compliance, because ISO is a non-governmental organization and does not depend on any other international body. Therefore, it has no authority to impose its standards on any country. However, this has not prevented these standards from being widely accepted and implemented by commercial and industrial actors interested in mechanisms that tell them exactly how to achieve and maintain the quality of their products, services and relations with the environment.

THE ISO FAMILY

The series of ISO standards related to quality are what is called the family of standards, which is made up of a large number of standards covering various aspects of industrial and commercial procedures. Among the best known policy documents of this family are the following:

ISO 9000: Quality Management

It is probably the most known and used family of standards, which provides criteria for the basics, vocabulary, requirements, quality system elements, quality in design, manufacture, inspection, installation, sales, after-sale service and guidelines for performance improvement.

ISO 10000: Quality Management Systems / Technical Reports

Provides guidelines to develop quality plans for the management of projects, documentation of Quality Management Systems, management of economic effects of quality, application of statistical techniques in the ISO 9000 standards and requirements of quality assurance.

ISO 14000: Environmental Management¹⁴

¹⁴ ISO 14000 seems to be the natural candidate to incorporate guidelines that promote DRR in the private sector, because its central focus is to foster better and more responsible relationships between the economic activity of a company and the surrounding environment in which it operates.

Standards related to the environmental management of organizations. Its basic objective is to promote the standardization of ways to produce and deliver services that protect the environment, minimizing the harmful effects of organizational activities.

ISO 19011: Guidelines for quality/environmental management systems auditing

Defines criteria to guide the evaluation and certification of the implementation of ISO standards in a business or industry.

Apart from those rules, standards and additional documents are still produced on the various aspects of global production and trade.

ADVANCES IN DISASTER RISK INCLUSION IN ISO

Recently, some ISO standards have been discussed and approved for the establishment of what their creators have called *security management systems, and business continuity and disaster recovery*. One of the most important standards in this connection came to light in 2007 and is called STANDARD ISO 27006¹⁵ "Guidelines for information and communications technology for disaster recovery services."

While this fact seems to be a promising milestone for the private sector's incorporation into disaster risk reduction, an analysis of the content of this standard shows that, although the terms used therein are very similar to those applied in the field of disaster risk management, in this particular case the emphasis is specifically focused on providing companies that rely on information technologies and services with certain methodologies for their data (databases, payrolls, service records, clients, offices, etc.) to be readily retrieved in the case of what they consider – probably based on justified reasons – "a disaster."

As regards the aforementioned ISO 27006, a suggestion is made to strengthen the recommendations that have been proposed in the area of computer security since the last third of last century, with special emphasis on aspects that should be considered when defining the physical location of strategic data storages of companies and the criteria that companies must apply to recruit computer security and data recovery suppliers.

Another forced point of reference in this connection is the international standard ISO 31000:2009, related to "risk management" and presented as a set of principles intended to help organizations of all types and sizes effectively manage the risks that might undermine the achievement of their business goals. Again, when delving into its contents, the risk to which it refers is pretty generic and covers topics such as the failure to comply with production objectives and legal requirements, lack of confidence, operational inefficiency, governance or financial crises, among others. All these topics are certainly of interest to private actors, but are not related to the objectives of disaster risk reduction.

This reality shows that "disaster risk management" as it is widely explained throughout the report of the Permanent Secretariat of SELA is different from the "risk management of security information" developed in ISO 27006 or similar standards, such as that developed by the BSI as BS 7799-3:2006 "Information security management systems. Guidelines for

¹⁵Some experts argue that this standard is largely based on standard SS-507 entitled "Standard for Business Continuity/Disaster Recovery Service Providers," which falls under SS management standards and are far less popular than ISO standards.

information security risk management." All this shows that the objective to PROMOTE COMPREHENSIVE DISASTER RISK MANAGEMENT among stakeholders of the private industrial and commercial sector, as among those who strive to promote management and operation standards, represents a pending issue.

A N N E X I I

Some tools for incorporating the private sector into disaster risk management

SOME TOOLS FOR INCORPORATING THE PRIVATE SECTOR INTO DISASTER RISK MANAGEMENT				
SECTORS	PREVENTION AND MITIGATION OBJECTIVES	BACKGROUND AND AVAILABLE TOOLS	PREPAREDNESS-RESPONSE OBJECTIVES	BACKGROUND AND AVAILABLE TOOLS
TELECOMMUNICATIONS	Gain knowledge about local threat levels. Assess and reduce structural, non-structural and functional vulnerability.	Adaptation of tools and indicators for facility risk assessment (available at PAHO, CRID, among others).	Sectoral protocols to assess post-impact damage and counting on coordination protocols in emergency plans.	Evaluate and adapt guidelines for sectoral assessment of damages (see OFDA/USAID). Adapt available sectoral response plans (see CRID).
TRANSPORT	Knowledge and monitoring of local threats and their areas of action, knowledge about vulnerability of roads and routes.	Technical reports on the vulnerability of available roads (CAF-Preandino); Web tools available for assessment of hydrogeological threats, volcanoes, etc.	Protocols for integration into the institutional mechanisms of response and post-impact rehabilitation.	To adapt actions to institutional response arrangements. Evaluate regional cases of sectoral participation (see CRID, PAHO and USAID).
CONSTRUCTION	Knowledge of threat levels, updating and use of sustainable and safe techniques, seismic-resistant adaptation.	Extensive information available on Web sites of institutions specializing in the subject: case studies available on specialized Web sites such as www.miyamotointernational.com .	Protocols for sectoral assessment of damage and post-impact rehabilitation.	Case studies on rehabilitation of emergency shelters (OCHA, USAID, UNDRO, Sphere project, RED CROSS).
TRADE	Knowledge of local threat levels, assessment and reduction of their structural, non-structural and functional vulnerability.	Adaptation of tools and indicators for facility risk assessment (available at PAHO, CRID, etc.).	Protocols for internal assessment of damage, where appropriate, along with institutional emergency plans.	Protocols for the creation of emergency and support protocols. Tools: www.lssweb.net or LSS/SUMA.
TOURISM	Knowledge of local threat levels, assessment and reduction of their structural, non-structural and functional vulnerability.	Adaptation of tools and indicators for facility risk assessment (available at PAHO, CRID, etc.).	Plans for client safeguarding and evacuation. Protocols for sectoral assessment of damage. Where applicable, coordination with emergency plans.	Adaptation of tools available for response in the health and education sectors (available at PAHO, CRID, EDURIESGO, etc.).
INSURANCE	Knowledge and dissemination of threats, promotion of new tools for the socialization of risk transfer.	Assessment of risk transfer experiences such as those carried out in Manizales, Colombia, CCRIF-CaribRM, CIPET, Sancor (Argentina) and GlobalAgRisk.	Protocols for sectoral assessment of damage and post-impact rehabilitation.	None in the operational phase.
SECURITY	Knowledge of local threat levels, assessment and reduction of their structural, non-structural and functional vulnerability.	Adaptation of tools and indicators for facility risk assessment (available at PAHO, CRID, etc.).	Protocols to support clients and coordination, in appropriate cases, with institutional emergency plans.	Evaluate experiences of cooperation with private security agencies in case of disasters.
AGRICULTURE-LIVESTOCK	Knowledge and monitoring of local threats and their areas of action; knowledge of vulnerability of networks and services on which the business depends.	Pages on weather threats, volcanoes, etc. Experiences of the sector such as www.sagarpa.gob.mx/ . Cuba-Venezuela agreement. Adaptation of tools for sectoral facility risk assessment (available at PAHO, CRID).	Protocols for sectoral assessment of damage and support to rehabilitation of basic services (roads, energy, water) that might undermine investments. Sanitary control. Coordination of emergency plans.	Evaluate and adapt experiences such as www.sagarpa.gob.mx/ , the Cuba-Venezuela agreement, and use of tools such as www.lssweb.net or LSS / SUMA.

SECTORS	PREVENTION AND MITIGATION OBJECTIVES	BACKGROUND AND AVAILABLE TOOLS	PREPAREDNESS-RESPONSE OBJECTIVES	BACKGROUND AND AVAILABLE TOOLS
HEALTH	Knowledge of the levels of local threats, assessment and reduction of structural, non-structural and functional vulnerability at facilities.	Application of tools and indicators for evaluation and promotion of safe hospitals developed by WHO-PAHO (available at PAHO, CRID, etc.).	Protocols for sectoral assessment of damage, rehabilitation of health services and management of injured people. Coordination with emergency plans.	Extensive information available at WHO-PAHO for preparing emergency protocols.
MANUFACTURE	Knowledge of the levels of local threats, assessment and reduction of structural, non-structural and functional vulnerability.	Adaptation of tools and indicators for facility risk assessment (available at PAHO, CRID, etc.).	Protocols for internal assessment of damage and coordination, where appropriate, with institutional emergency plans.	Protocols for preparation of emergency and support protocols. Tools: www.lssweb.net or LSS/SUMA.
PHARMACOLOGICAL	Knowledge of the levels of local threats, assessment and reduction of structural, non-structural and functional vulnerability.	Adaptation of tools and indicators for facility risk assessment (available at PAHO, CRID, etc.).	Protocols for internal assessment of damage and coordination, where appropriate, with emergency plans in local health centers and institutions.	www.lssweb.net or LSS/SUMA. Protocols for managing pharmaceutical supplies in case of disasters, WHO-PAHO.
EDUCATION	Knowledge and reduction of local risks, inclusion of prevention and mitigation in their training programmes.	Experiences and materials available on the inclusion of prevention and mitigation of risks in the education system. Case studies such as www.eduriesgo.org .	Disaster preparedness plans in schools. Assessment of damage and rehabilitation. Coordination with emergency plans, if required.	Extensive information available at ISDR, CRID, UNESCO.
BANKING AND FINANCES	Knowledge of the levels of local threats, assessment and reduction of structural, non-structural and functional vulnerability.	Evaluation and adaptation of experiences with transfers and soft financing of activities concerning risk prevention and mitigation.	Computer security standards. Protocols for sectoral assessment of damage and post-impact rehabilitation. Plans for rapid reactivation of customers access to their savings.	ISO 27006 and BS779-3:2006 standards for database security. Evaluate case studies.
OIL AND DERIVATIVES	Knowledge of the levels of local threats, assessment and reduction of structural, non-structural and functional vulnerability.	Extensive information available on Web sites of regulatory entities on the safety of petrochemical facilities. Ensuring rights of others to know (see Linayo).	Immediate protocols for assessment of damage and rehabilitation. Protocols for coordination with local emergency plans.	Protocols for response to technological risks such as APPEL.

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