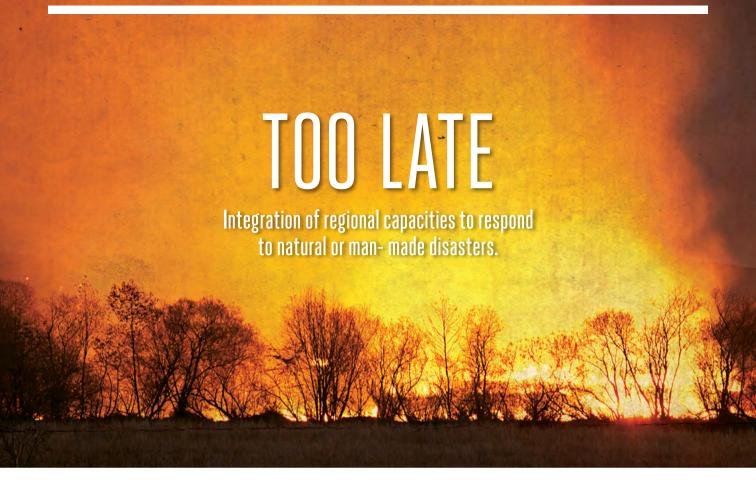
CIVIL DEFENSE VISIÓN CONJUNTA NÚMERO 12



Natural disasters permanently affect a great part of society and are a worldwide concern. Little has been made as to prediction and implementation and, therefore, as stated by the author, there is much improvisation which makes aid arrive too late.

KEY WORDS: DISASTERS / STATE / MITIGATION / AGREEMENTS / IMPLEMENTATION

By Humberto Flavio Angelomé

## NTRODUCTION

Every day, images of fire, toxic leaks, floods, earthquakes, droughts and other natural or man-made disasters show different feelings and vulnerabilities of society. These disasters affect several social sectors, especially in urban areas causing a flow of refugees and displaced persons that will live for periods of time that are relatively long in critical health and education conditions apart from losing industrial and productive activities.

During the last years, the number of natural  $^1$  and manmade  $^2$  disasters has increased and, thus, the number of victims and material losses has also increased. This trend represents a serious threat to worldwide sustainable

development. In light of this, the international community has decided to apply multiple initiatives with different results.

Natural disasters do not respect borders and, regionally, they may cause the collapse of sanitary, housing and food facilities of neighbor countries due to uncontrolled mass migration of people fleeing and, therefore, it is necessary to work on international cooperation.

- Currently called "socio- natural disasters". This expression is the result of the relationship between natural disasters and social vulnerability.
- 2. These are called "social" as threat has human and social nature.

A state that cannot meet the minimum welfare and governance conditions may become a failed or anarchic state. International cooperation is a clear case of cooperative security: the more capacity each country has to face the aftermath of a disaster, the more secure neighbor countries will be.

Mitigation of natural and man-made disasters is key at national level. This article questions that regional agreements make special reference of structures and legal frameworks instead of focusing on concrete measures for implementation in response and recovery. It is, in fact, a poor regional management of risks.

#### NATIONAL AND REGIONAL RESPONSIBILITIES

Management of disasters is analyzed and studied in a systematic manner, as a cyclical sequence of three stages that are related to each other.

These are the following:

- > "Before- Mitigation" (which includes prevention and preparation)
- > "During-Response"
- ) "After-Recovery" (which includes rehabilitation and rebuilding")

Mitigation phase is clearly a national responsibility. It has the purpose of reducing the impact of disasters. Prevention and preparation, composed of short and long term measures aims at saving lives and limiting damage caused by the adverse event (DNPC, 2010). This is achieved by reducing vulnerability with warning systems, risk monitoring, promotion, training, education and a legal framework that supports and organizes these elements<sup>3</sup>. During this stage, strategies related to the organization of public (national, provincial and municipal) sectors must be prepared and implemented.

It is also necessary to train and coordinate with other community bodies involved in this process to properly prepare population so that it can react in a coordinated and cooperative manner in case of disaster<sup>4</sup>. Most disasters may be prevented by means of prevention and mitigation activities previously planned at national level<sup>5</sup>: Damage after a disaster is due to the fact that the system and its elements

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are not capable of protecting themselves against the threat or to recover from their effects<sup>6</sup>.

Response and recovery stages imply the activation and articulation of actions planned for each case which may include, among others, the evacuation of the community affected, aid, search and rescue. Although these stages do not lie within each state's sovereign responsibility, international aid is aimed at saving lives, reducing pain and protecting property. This period is normally the most visible one for the community and the media, except in cases of droughts and hunger, among others<sup>7</sup>.

Recovery state includes different measures. It may imply a short term recovery of structures stopped due to the disaster and a long term recovery to restore or improve original conditions thus preventing future repetition<sup>8</sup>.

In this sequence of stages, there is a close relationship among activities implied in each of them and it is difficult to precisely determine the beginning and end of each of them and the responsibilities of those who work on more than two.

It is important to bear in mind that risk management is an ongoing process as we will always be in one of these stages.

## EXTRA REGIONAL CONTEXT

According to international data, as from 1960 to these days, there has been a significant increase in the number, seriousness and intensity of disasters.

This trend is a serious threat to sustainable development<sup>9</sup> as while natural disasters still happen, human actions may increase or reduce vulnerability of society against them considering socio-economic factors that determine such vulnerability.

- National Executive Power, "Federal Emergency System (SIFEM, in its Spanish acronym). Executive Order 1250/99 on Federal Emergency System, creation within the Cabinet of Ministers, Purposes, Emergency Department (GADE, in its Spanish acronym). Integration. Base Entities, October 28, 1999 as published on the Official Gazette on November 4, 1999, No. 29265, p.3.
- Zagalsky, Ruth, "Five years as from the creation of the Federal Emergency System-SIFEM. A
  critical assessment of its institutional development". Cuadernos del CEPAS. Available at http://
  www.asociacionag.org.ar/pdfaportes/22/09, p. 4.
- 5. UNO/ ECLAC, "Conceptual Elements for the Prevention and Reduction of damage caused by
- socio- natural threats", UNO, ECLAC Flagships No. 91, 2005. Available at http://www.eclac.org/publicaciones/xml/1/23711/lcg2722e.pdf, p. 9.
- Lavell, A., et. al. From the concept of risk and its management to the meaning and manners of social intervention, Arequipa, COPASA- GTZ/ Project for Natural Disaster Risk Management, 2003.
- 7. Zagalsky, Ruth, op. cit., p. 6.
- 8. Zagalsky, Ruth, op. cit., p. 7.
- Sustainable development: development that satisfies the needs of present times without engaging the capacity of future generations to satisfy their own needs. This definition was created in 1987 by the Brundtland Commission.



For example, population growth, changes in demography and economy (uncontrolled urbanization) and poverty have forced millions of people to live in areas prone to disaster and in improper houses thus increasing their vulnerability.

Between 2002 and 2011, there have been 4130 disasters resulting from socio- natural phenomena and 1.117.527 people died. There have been losses for 1195 million dollars. People and resources are located in high risk areas.

Worldwide proportion of inhabitants of areas prone to floods has increased by 114% while population that lives in seaside areas exposed to cyclones has increased by 192% in the last 30 years.

Half of the cities of between 2 and 15 million inhabitants are located in areas prone to earthquakes. Quick urbanization will continue growing and, therefore, exposure to risk of disaster will also grow (ISDR/UNO, 2011).

Among the most important international events, we can highlight the International Conference of United Nations (Stockholm, 1972) under the title "Man and Biosphere". There, there was a first international warning as to ecological crisis and eco-development<sup>10</sup> was supported as a way to prevent social and environmental damage caused by a development model that wastes resources and pollutes land, sea and air.

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As president of the World Commission on Environment and Development, Gro Harlem Brundtland, former Prime Minister of Norway, in a report submitted to the United Nations titled "Our Common Future" (1987) introduced the concept of sustainable development, presenting an international objective and a common perspective and purpose to work for.

As the 21st century started, demographic growth, environmental degradation, rapid industrialization and socio- economic instability have led to an increase in the risk of huge disasters. For humankind to become aware of how much it is possible to be done in order to foresee natural disasters, the United Nations have implemented the International Decade for Natural Disaster Reduction from 1990 to 1999<sup>11</sup>.

Reduction through Resolution 44/236 dated December 22, 1989. All countries were urged to found National Committees and a small international framework was established to give support by means of a Scientific- Technical Committee, an Inter- Agency Committee and a Secretariat based in Geneva and then a Unit for Latin America and the Caribbean based in Costa Rica.

<sup>10.</sup> Some time later, the United Nations would leave the expression eco-development as it is politically incorrect as stated by Henry Kissinger, United States Ambassador. It was replaced by "sustainable development".

<sup>11.</sup> The General Assembly of the United States established the International Decade for Natural Disaster

In Yokohama (1994) the World Conference on Natural Disaster Reduction was held. During this conference, a document known as "Yokohama Strategy and Plan of Action for a Safer World: guidelines for natural disaster<sup>12</sup> prevention, preparedness and mitigation (UNO/IDNDR, 1994).

Within the context of the United Nations, experience acquired during the IDNDR from 1990 to 1999 helped to promote the application of a change of concepts from a simple response to disasters to their reduction highlighting the key role of human action. This has led to the creation of the International Strategy for Disaster Reduction in the year 1999.

The World Conference of the United Nations on Disaster Reduction (UNO/WCDR, 2005) held in Hyogo, Japan, between January 18 and 22, 2005, is a landmark based on the findings of the revision process of the Yokohama Strategy. There, two documents were negotiated: increase of resilience of nations and communities against disasters: Hyogo Framework for Action (HFA) 2005-2015" in which it was resolved to achieve a significant reduction of losses caused by disasters for the year 2015 and the Hyogo Declaration which acknowledges the close relationship

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between disaster reduction, sustainable development and poverty eradication as well as the importance of getting all society sectors involved (UNO/WCDR, 2005).

Nowadays, disaster risk management is strongly present in the international political agenda, for example, in the G20, Rio+20<sup>14</sup>, the Summit of the Americas<sup>15</sup> and the Inter-Governmental Panel on Climate Change<sup>16</sup> (IPCC, 2012). These stages recognize practical relations among disaster risk management, adaptation to climate change, sustainable development, poverty and weak governance in order to reduce vulnerability of communities.

In the same manner, both disaster risk reduction and adaptation to climate change consider prospective measures to help governments and communities to know and be able to foresee climate events and adverse potential effects to have enough time to take the necessary measures.

The Hyogo Framework for Action contributed to extend disaster risk reduction, but objectives and priorities for action are still far from being achieved <sup>17</sup>. All these agreements and documents mentioned are taken into good international intentions, agreements about expressions and the creation of direction super structures. This is not enough to face concrete cases. It may be seen that even the most powerful nation in the world, the United States, required concrete assistance from the European Union resources after Katrina hurricane in New Orleans, in 2005.

# **REGIONAL CONTEXT**

The expression regional context is ambiguous as it may mean, in Argentina, both the so-called Southern Cone and



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Latin America. There is more confusion as to the fact that there is also the expression sub regional. In this article, we will understand the expression regional context as Latin America.

Latin America is exposed to many natural threats due to its geological, climate, hydrological and geomorphological characteristics. One of the most dramatic representations that affect the region is the El Niño Southern Oscillation phenomenon.

Floods are very frequent in this continent due to climate problems related to unplanned urban expansion, erosion and sustainable use of land. Moreover, extreme temperatures and droughts are increasingly frequent and serious in some areas in the region, in particular in Peru, the Bolivian Altiplano and the Great Chaco (Bolivia, Paraguay and Argentine North East).

Areas such as the Pacific Coast and the south of the continent have earthquakes and tsunamis of great magnitude. All of these disasters are cyclical and, therefore, quite predictable.

In the countries of the region, disaster aid systems started in the 70's with the creation of Civil Defense entities. These institutions have a hierarchical structure and a response focus, excessive centralism and lack of coordination among governmental and private entities and communities, as well as among response entities and aid in case of disaster, research and training.

There are still nowadays in many countries of the region some efficient mechanisms for response but which do not have prevention capacity, which should be a main national concern. Losses caused by disasters as well as the clear evidence of the relation among vulnerabilities, natural and man-made threat and disaster risk, promoted a new way to face the problem which includes prevention, an effort for territory planning and development.

In spite of cultural, economic, population and territorial differences in the countries of the region, there are aspects that are common to all of them: exposure to a great variety of natural and man-made threats, high social vulnerability levels, great urban concentration, basic infrastructure deficit and environmental degradation processes caused by deforestation and soil erosion<sup>18</sup>.

We may highlight as background, within regional legal framework, the Final Statement of the VI Ibero-American Summit of Heads of State and Government (Viña del Mar, November 11, 1996) which refers to the creation of the Ibero-American Association of Protection and Civil Defense Bodies during the same year<sup>19</sup>.

Argentina executed an agreement with the Republic of Chile on cooperation on catastrophes, Law 25240/2000 and, therefore, in the context of the Armed Forces, regulations were drafted and passed and a series of combined exercises called "Solidarity" started in the year 2001.

In Peru, Law 26128 (August 2006) was promulgated and the agreement on cooperation on disasters was promulgated and was executed in Buenos Aires on June 11, 2004.

Bolivia and Argentina, as regards cooperation on disasters, frequently carry out combined exercises called "MASI".

The Andean Community promoted risk management initiatives through the Andean Committee for the Prevention and Assistance in case of Disaster (CAPRADE, in its Spanish acronym), created in 2002 to contribute to the reduction of risk and impact of disasters on the Andean subregion territory.

Moreover, there are Bilateral Agreements in the region, based on which the Armed Forces prepared rules on cooperation procedures, for example, between Peru and

- 12. The document prepared by the International Strategy for Risk Disaster stated, among other concepts, the main responsibility of each country to protect their population against the effects of natural disasters and that regional cooperation is essential for the promotion of "worldwide prevention culture".
- 13. The experience of the International Decade for Natural Disaster Reduction, the Yokohama Strategy (1994) and the Strategy called "A safer world in the 21st century: Reduction of Disasters and Risks" (adopted during the IDNDR Program Forum in July, 1999) served as basis for the creation of ISDR which has a Secretariat based in Geneva and offices in Africa, North America, South America, Asia, the Pacific and Europe as well as liaison office in New York, but the system of the ISDR comprises United Nations organizations, governments, civil society entities, private sector media and other participants all over the world.
- United Nations Conference on Sustainable Development (UNCED) held in Rio de Janeiro, Brazil, June, 2012

- 15. On April 14 and 15, 2012, Cartagena de Indias, Colombia, the 6th OAS Summit "Connecting Americas: Partners for Prosperity" was held. It focused on the role of physical integration and regional cooperation in several key areas including disasters.
- 16. The relation between climate change and extreme climate events that are considered threats in particular as to Management of Extreme Events Risk and IPCC based on information of the year 1950 to this date concludes that climate change, far from being a future scenario has already affected the magnitude and frequency of some climate events.
- Khamis, Marion and Osorio, Claudio, South America: A regional vision of the situation of disaster risk: UNSDR- ECHO, 2013, p. 26.
- 18. UNO/ ECLAC, op.cit., p. 69.
- Organization of Ibero- American States, VI Ibero- American Summit of Heads of State and Government, Statement of Viña del Mar, Chile, 1996.

Ecuador, Peru and Bolivia, Chile and Peru and this would be extended to Brazil, Paraguay and Uruguay.

In the year 2001, in the context of Mercosur, the Framework Agreement on Environment, was signed in Asunción, where the importance of environment is considered as crucial in the consolidation and strengthening of Mercosur and the obligation to timely provide information on disasters and environmental emergencies that may affect other Member States and, whenever possible, technical and operational support was established. The main tasks related to the reduction of disaster risk came from the Specialized Meeting on Socio- Natural Disaster Risk Reduction, Civil Defense, Civil Protection and Humanitarian Aid in 2009.

In the Statement of Santiago de Chile<sup>20</sup> made by the South American Defense Council of UNASUR, the first cooperation initiatives as to defense were presented by means of the execution of the 2009-2010 Action Plan and, later, the annual Action Plans were prepared<sup>21</sup>.

These plans develop four guidelines with a series of specific initiatives. In Guideline No. 2, Military Cooperation, Humanitarian Actions and Peace Operations, the following initiatives were established:

- > Plan and execute a combined exercise for aid in case of natural catastrophes or disasters.
- > Prepare a list of defense capacities that countries offer to support humanitarian actions.
- ) Propose mechanisms to be implemented in case of natural disasters.
- > Exchange experiences in the field of humanitarian actions in order to establish immediate response mechanisms in case of natural disasters.
- ) Propose cooperation mechanisms among Ministers of Defense of member countries to immediately respond to natural and man-made disasters of great magnitude within the framework of responsibilities stated in the domestic regulations of each State, including operational aspects.
- > Prepare risk maps of natural disasters for early mitigation within the framework of responsibilities

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stated in the domestic regulations of each State, including operational aspects.

However, the purposes of the South American Defense Council were reached in a very varied manner because, in many cases, due to the complexity stated, they go beyond the calendar. Moreover, in Action Plans, countries responsible and countries that are jointly responsible are stated, thus, progress depends on the promotion by those responsible and the level of agreement/acceptance of the rest of the countries.

## CONCLUSIONS

In this short list of regulatory and intentional frameworks that are laudable at international and regional level, it is clear that there are many super structures but few concrete manners to implement aid.

It would be necessary for each country to be prepared to prevent and mitigate disasters preparing risk maps that may be predictable due to its cyclical condition and, thus, carry out an urban development in line with likely risks, for example, by not authorizing urbanization on landfills or near water courses or educating people as to resilience capacity to face disasters.

Adhesion to global warming treaties, evacuation plans, and hydric works and reforestation campaigns must also be dealt with early.

The region must be prepared with immediate response teams to get involved in "Response" and "Recovery" stages in other countries, organized according to different foreseeable disasters: earthquakes, volcano eruption, floods and fire.

These immediate response teams must have some logistic autonomy days, go to neighbor countries in urgent period of time and after the national self- sufficiency period has expired, they have to stay in the country affected or leave it pursuant to their government requirements. This has not been implemented at regional level, although it has been implemented in Central America.

Effects of natural disasters are increasingly greater and all specialized entities agree on the need to face these problems with an integral perspective of the cycle of disasters, promoting prevention and mitigation activities and getting ready for regional cooperation in response and recovery.

Contents of summits, conferences, strategies, reports and initiatives show worldwide concern as to these issues but advance in implementation is little and it is necessary to work on this. As regards this issue, improvisation leads aid to arrive late or not to arrive.

<sup>20.</sup> Statement of Santiago de Chile-Santiago, Chile, March 9 and 10, 2009.

<sup>21.</sup> South American Council, 2009-2010, 2010-2011 and 2012-2013 Action Plan.