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Sistema Económico  
Latino-Americano e do Caribe

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Système Economique  
Latinoaméricain et Caribéen



# **Continuity of Operations (COOP) and Continuity of Government (COG): Implementation guide for local governments and enterprises**

**Economic and Technical Cooperation**

*III Regional Seminar on partnerships between the public and private sectors for disaster risk management: Continuity of government and continuity of business operations during disasters in Latin America and the Caribbean: Progress and experiences from the perspective of local governments and enterprises*

*Samborondón, Ecuador*

*14 and 15 October 2014*

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## **F O R E W O R D**

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*This document has been developed for Activity II.1.3, III Regional Seminar on "Partnerships between the Public and Private Sectors for Disaster Risk Reduction in Latin America and the Caribbean. Continuity of Government and Continuity of Business Operations in Case of Disaster", of Project II.1, "Strengthening Economic and Technical Cooperation in Latin America and the Caribbean," as provided for in the Work Programme of the Permanent Secretariat of the Latin American and Caribbean Economic System (SELA) for the year 2014.*

*This paper is primarily intended to encourage discussions and the exchange of ideas and experiences at the "III Regional Seminar on Partnerships between the Public and Private Sectors for the Management of Disaster Risks. Continuity of Government and Continuity of Business Operations in Case of Disaster in Latin America and the Caribbean: progress and experiences from the perspectives of Governments and local enterprises," a regional encounter to be held in Samborondón, Ecuador, on 14 and 15 October 2014, as jointly organized by the Permanent Secretariat of SELA and the Government of the Republic of Ecuador--through its Risk Management Directorate (SGR)--and the support of the United Nations Office for Disaster Risk Reduction (UNISDR).*

*It comprises five substantive sections dealing with I) Continuity of Operations in the Private Sector: Continuity of Operations; (II) Continuity of Operations and Government at the Local Level; (III) Public-Private Partnerships as a Strategic Approach to Ensuring the Continuity of Operations and Government at the Local Level; (IV) Guidelines for the Development of a Continuity of Operations (COOP) and Continuity of Government (COG) Plan; and (V) Guidelines to Assess the Implementation of Continuity Plans. Set out subsequently are the*

*conclusions of this study as well as some threats and challenges that should be addressed. Recommendations are presented in the final section of this paper.*

*It should be noted that the Permanent Secretariat has been working on the issue of Public-Private Partnerships for Disaster Risk Reduction in keeping with agreements reached at the Regional Meeting of International Mechanisms for Humanitarian Assistance (MIAH), a coordination body mandated by the Community of Latin American and Caribbean States (CELAC) and controlled by the Regional Office of the UN Office for the Coordination of Humanitarian Affairs. In addition, initiatives being promoted by the Permanent Secretariat in this area are also part of the Memorandum of Understanding between the United Nations and the Permanent Secretariat of SELA to foster cooperation and coordination in the field of Disaster Risk Reduction in Latin America and the Caribbean for the period 2012-2015, with a focus on a project called "Cooperation between Governments and the Private Sector for Disaster Risk Reduction."*

*This study has been prepared by Consultant Ana Lucía Hill Mayoral, whose effort is recognized and much appreciated by the Permanent Secretariat.*

## **EXECUTIVE SUMMARY**

The impact of disasters on the social and economic development of a country depends not only on the severity of the event, but it is also directly related to our level of preparedness. Hazards arise at the local level so it is everyone's responsibility to make their personal contribution to the reduction of disaster risk. One way to achieve this is through the development and implementation of business operation continuity plans allowing for ensuring the continued operation and functioning of local public and private organizations.

Not only must private companies anticipate permanent risks associated with their geographical location, they must also be prepared to cope with vulnerability arising from a globalized economy and an increasingly interlinked supply chain. The concept of business continuity has changed continuously, evolving from an initial orientation towards technology to an approach prioritizing authority, which in turn was followed by a value-added concept that was succeeded by a standardization approach, and now it is entering a new stage, one of social responsibility. The development and implementation of a Continuity of Operations Plan (COOP) are of a voluntary nature and a number of standards and guidelines have been developed in order to facilitate the adoption of such a plan.

At the local level, Continuity of Government (COG) is the process of planning to protect critical infrastructure and ensure the provision of services required for the functioning of society. With a history dating back to World War II, Continuity of Government is a higher level of preparedness for which continued operation of private organizations is a requirement. Therefore, companies in the private sector should be seen as a key partner of Government institutions because of their strategic role in the various tasks that must be performed to ensure the effective recovery of a community and its inhabitants. Joint efforts and coordinated work of public and private sectors to build institutional resilience schemes based on the concept of continuity help ensure the development of our communities. Together, COOP and COG can reinforce institutional capacities for basic operations and institutional coordination between sectors paving the way towards Continuity of Development (COD).

One of the most important challenges is the increased vulnerability to which we are exposed as a result of a globalized world and the emergence of new threats and risks. Rapidly spreading diseases, armed conflicts in the Middle East, Asia and Europe, or volcanic activity modifying transportation routes all stress the importance that senior management groups and the political leadership of governments should place on the continued monitoring and analysis of the international scenario.

The concept of continuity will continue to evolve, always requiring the commitment of the highest decision-making levels of public and private institutions to design and implement continuity plans. The PCOOP should remain an active element of every organization, not an item developed just for the sake of compliance and then kept in some forgotten file. Within the new scheme of social responsibility of private enterprises, continuity is an element that distinguishes them as organizations committed not only to shareholders but also to the society in which they operate.

Finally, the strengthening of public-private partnerships, together with the monitoring of and the commitment to regional initiatives for disaster risk reduction, are a good way to achieve the goal of building resilient societies.

## 4

*Continuity of Operations (COOP) and Continuity of Government (COG): An implementation guide for governments and local businesses* is a document intended to encourage debate on the adoption of continuity policies as a tool for disaster risk reduction (DRR) and to become an instrument, a guide for the adoption of a continuity strategy by the local public and private sectors aimed at minimizing the cost of future disasters and contributing to the continued development of our communities. This effort builds on a previous document entitled *Continuity of Operations (COOP) and Continuity of Government (COG): Proposal for their implementation in Latin America and the Caribbean*, which explores the efforts that have been undertaken on the subject in the Americas.



## INTRODUCTION

According to the latest Global Assessment Report on the Disaster Risk Reduction (GAR, 2013), there have been direct economic losses exceeding US \$100 billion in recent years. Damage caused by earthquakes and hurricanes is expected to jump to US \$180 billion, a figure that does not include the local cost of disasters equally affecting public and private organizations in the form of floods, mudslides, fires and storms or disruptions in the organizations of society.

The globalized world in which we live today offers opportunities for growth and development. Dependencies and interdependencies generated by this increasing globalization (of financial markets and supply chains) also lead to new shared risks. As a result, today the adverse impact of a disaster at the local level may cross borders and have an impact just as unfavourable in other regions of the world. Efforts to mitigate the negative impact of disasters are widening and require an increasingly glocal<sup>1</sup> approach covering from public and private organizations to coordinated efforts in disaster risk reduction. To achieve this goal, these organizations of society must show:

- Political will,
- Institutional commitment, and
- A high degree of social responsibility

Things happen at the local level. The better we are prepared to address risks, the lesser the damages we will have to report in the aftermath of a disaster. Disaster risk reduction is, without exception, a responsibility of everyone, but it is also a priority that will not produce good fruit without the concurrent, organized and supportive effort of every individual, every organization, every community, every location, municipality, region, state.

It is important to understand that no individual government, group of society or person can cope with the negative impact of disasters in an isolated and independent manner. Work must be permanent: risks are constantly changing and so their identification and analysis become an everyday task. Nobody – from a factory worker to a businessman, the farmer, the farm worker, the student, the doctor, the professional, the community work organization and the structure of Government itself – is exempt from being affected. Working together facilitates the identification of risks shared by all, thus allowing for defining actions to strengthen a comprehensive security scheme for and with the population.

The concept of continuity at its three levels (Hill, 2013-1) is presented as a tool for disaster risk reduction. It is also a natural common ground for coordinated work between sectors that share risks and contribute to the stability and development of society.

Disasters can occur in various ways, due to a natural event or as a result of the actions of man, either accidentally or intentionally. Their impact on social and economic development depends not only on the severity of the event, but it is directly related to our level of preparedness.

While we cannot prevent certain things from happening, we can work together to reduce disaster risk and to mitigate its negative impact. The more we are aware of the risks we face and how they affect organizations of society, the better able we will be to work with efficient mitigation schemes, thereby contributing to the creation of local resilience.

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<sup>1</sup> Efforts requiring people to think globally and act locally. Glocal is a combination of global and local.

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This document is intended to promote the adoption of risk reduction measures through the development of operations continuity plans – also known as business continuity – allowing for ensuring the operation and functioning of local business and government organizations. It is not intended to be a straitjacket. It should rather be seen as a starting point in the planning and plan integration processes, with a series of guidelines and recommendations for those organizations interested in having a continuity plan in place. As part of this study, the main differences and agreements between the private and public sectors on continuity of operations are discussed, highlighting how the concept of continuity has helped establish strategic partnerships between sectors with a view to reducing risk. It also provides a basic guide for the development of a plan and a proposed assessment of the implementation process.

## I. CONTINUITY OF OPERATIONS (COOP) IN THE PRIVATE SECTOR: CONTINUITY OF BUSINESS

The negative impact of a disaster on the private sector goes beyond damages suffered by companies. The private sector losses caused by a disaster are understood not only in terms of the disruption of productive activities, but they are also reflected in changes in the flow of goods and services, loss of jobs, reduced tax revenues (lower tax returns), inflation and/or loss of economic opportunities, which in turn slows down the pace of growth and development of the affected communities, regions and/or countries.

Thus, now more than ever, disaster response must be understood as a shared responsibility where every individual must and can contribute to the level of preparedness and response capacity of communities. In particular, private sector organizations have made a commitment to their company and to society to help build disaster resilient organizations. Private sector companies should not only anticipate the natural hazards they face due to their geographic location, but they should also address vulnerabilities resulting from a globalized economy and an increasingly interconnected supply chain.

### 1. Historical background and importance of Continuity of Operations

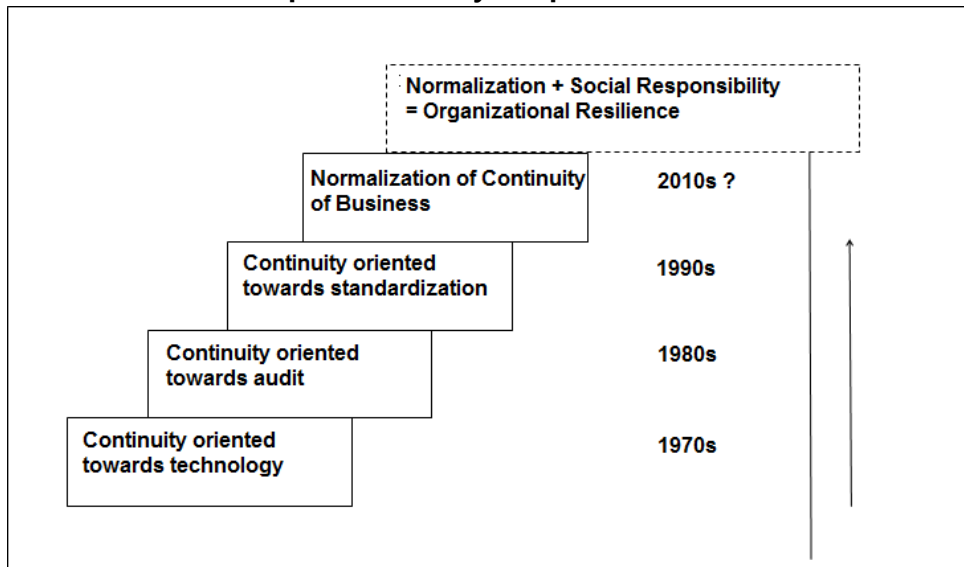
The concept of continuity is not new. Both conceptually and empirically, evidence of this concept can be found in the biblical stories (Hill, 2013-1). The Flood – an event in the Old Testament – describes the early work of foresight and continuity with the prowess of Noah's Ark, a vessel built for the purpose of saving Noah, his family and various pairs of animals by protecting them from the Great Flood, thus ensuring the subsequent repopulation of Earth.

But in recent decades the concept of continuity of business or Continuity of Operations (COOP) has evolved significantly, changing from a disaster recovery activity mainly oriented towards information technology areas into a comprehensive security and protection activity – with a holistic risk management approach – to deal with situations that threaten to disrupt the operations of the company. Today continuity of operations is about building capacity for organizational resilience.

Elliott, Swartz, and Herbane (2010) have identified four stages in the evolution of the concept of continuity:

- **Continuity oriented towards technology.** This approach dominated in the 1970s. Technology-oriented efforts used to focus on the protection of computer systems and facilities. Emphasis was placed on the recovery—as a first step—of the technology assets of the company. (Disaster Recovery or DR).
- **Continuity oriented towards audit.** Still primarily aimed to protect information technology areas, the audit-oriented approach dominated in the 1980s, expanding its focus to include operations protection—preventing and surviving any disruptions—and, even more important, to ensure compliance with existing regulation. (Business Continuity Planning, or BCP).

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**CHART 1****Evolution of the concept of Continuity of Operations**

Source: Adapted from Elliot et al. (2010).

- **Continuity oriented towards standardization.** A more comprehensive approach to protecting technological and social systems while building strategic capacities (organizational knowledge and adaptation). Continuity is now part of the activities of the enterprise or organization in keeping with existing national and/or international best practices and regulations.
- **An emerging stage: Continuity oriented towards social responsibility.** In the coming years, we will see how the concept of continuity will be part of major social responsibility strategies in the private sector as a commitment to society. Coordination work between public and private sectors will be promoted and continuity strategies will be defined as an active and voluntary contribution to social and economic progress (rather than a regulatory compliance effort) with strong interaction bonds with the community and its surroundings.

## 2. Legal aspects and industry standards

Continuity of operations or business continuity is a responsibility that goes beyond legal liability. Establishing a continuity strategy and developing the corresponding plans is of a voluntary nature provided that it is not included in the existing laws and regulations. Standards provide the methods, guidelines and procedures required to ensure that the company will continue to operate without disruption, regardless of adverse circumstances or events. Guidelines and standards also serve as a tool to evaluate our work and as a methodology to evaluate companies and organizations with whom we work together (strategic partners).

For years, those working and conducting studies in the field of continuity of operations have helped developed guidelines that identify the components that any continuity of operations plan should consist of and these have become the guidelines used in the public and private sectors around the world (MIR3). Recently, interest in having a continuity standard has increased, especially to be used either as a guide for the development and implementation of an effective plan or as an audit methodology.

While no single standard exists that can be seen as the best choice for every type of organization or Business – they are not ready-made solutions and should be adapted to the needs of each individual organization – choosing one standard over another is the sole responsibility of each organization. Internationally recognized by experts in continuity of operations, the leading standards include:

***NPFA 1600 Standard on Disaster/Emergency Management and Business Continuity Programmes***

The Standard on Disaster/Emergency Management and Business Continuity Programs establishes a common set of criteria and procedures to manage all types of disasters/emergencies and business continuity programmes. It aims to provide the criteria to develop, implement, assess and maintain a mitigation, preparedness, response, continuity and recovery programme. This standard can be used by private, public, non-profit, and non-governmental organizations.

**CHART 2**

**NPFA 1600: Components of the Programme (Disasters, Emergencies and Continuity)**



Source: NPFA 1600, 2013.

***British Standard 25999***

It is a two-part standard. Part I, BS 25999-1: 2006 Business Continuity Management Code of Practice, establishes the processes, principles and terminology used, and Part II, BS 25999-2:2007 Specification for Business Continuity Management (BCM), defines the criteria to evaluate its implementation. This standard promotes identification and assessment of risks – both internal and external – business impact analysis (BIA), assessment of the impact of hazards on the organization, PCOOP development, implementation and maintenance of these plans, and periodic testing.

**CHART 3**

**British Standard 25999-2:2007 Specifications for Business Continuity Management (BCM)**



Source: MIR3.

**ANSI/ASIS SPC.1-2009. Organizational Resilience: Security, Preparedness, and Continuity Management Systems**

This standard can be used by private, non-governmental and government organizations. It provides audit elements and criteria and guidance for action and decision-making needed to anticipate, prevent, prepare for, mitigate, respond to, continue to operate and recover from incidents with the potential to turn into emergencies, crises and disasters, thereby disrupting the operations of an organization. The standard is intended to contribute in the building of capacity to face and survive an incident. Regardless of the nature of the organization, it is understood that those leading it bear an institutional responsibility and are socially committed – to their stakeholders, including customers and strategic Partners – to have a strategy in place for the management of risks and crises.

**CHART 4**

**ANSI/ASIS SPC.1-2009. Organizational Resilience: Security, Preparedness, and Continuity Management Systems**



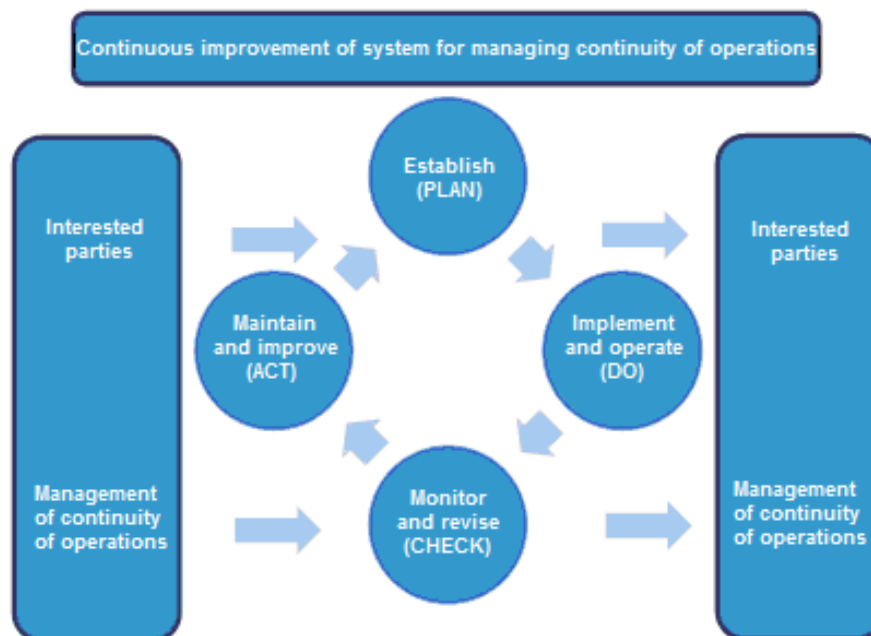
Source: MIR3.

### **ISO 22301/ ISO 22313**

International standard ISO 22301:2012 Societal security – Business continuity management systems – Requirements establishes the framework for business continuity management performance and compliance, while the ISO 22313:2012 standard, Societal security – Business continuity management systems – Guidance is a best practice supplement for the implementation of ISO 22301. ISO 22301 is based on a PDCA (Plan, Do, Check, Act) methodology and specifies requirements to plan, establish, implement, operate, monitor, review, maintain and continually improve a documented management system to protect against, reduce the likelihood of occurrence, prepare for, respond to, and recover from disruptive incidents when they arise. Both standards are generic and intended to be applicable to all organizations – regardless of type, size and nature – interested in the development and implementation of a business continuity strategy.

#### **CHART 5**

#### **ISO 22301:2012 Societal security – Business continuity management systems – Requirements**



Source: ISO (2012-1).

### **3. Successful stories**

#### ***Chedrahui, an example of social responsibility and organizational resilience***

Chedrahui is a country-wide Mexican chain of grocery stores and self-service stores, a family business that is not only distinguished for their clear understanding of the importance of having a strategy in place that will ensure continued operations and customer service availability, but they are also known as an active contributor to building disaster preparedness and response capacities in the municipalities where they operate. The events that occurred a few years ago as a result of the floods in the town of Boca del Rio are a clear example of this. Like many companies in the area, one of its grocery stores suffered damages due to the floods caused by the impact of Hurricane Karl in 2010. To add to the damages, many of their employees had flooded houses and lost their assets. The response was immediate. After the storm subsided, it was necessary to reopen the store. The message was clear and effectively communicated to everyone, they would work

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together to overcome this emergency scenario. Employees who were affected would not be left hanging, they would be supported by the company and everybody would help in recovery of the business to ensure its reopening within 24 hours of the passage of the hurricane. The response, as provided for in their continuity of operations plans, helped create a sense of certainty and confidence in the population.

***Walgreens, an exercise of proactive prevention***

Hurricane Sandy was the 18th tropical cyclone in the 2012 hurricane season and the 10th to be classified as a hurricane. It was the worst hurricane ever seen and the second worst in terms of damage caused, only outranked by Hurricane Katrina in late August 2005. It initially hit Colombia and Venezuela as of 17 October as a tropical depression, that is, before being considered as a tropical storm, which happened a day later and, of course, before reaching the hurricane level status. Besides Colombia and Venezuela, the devastating impact of this event was felt in Haiti, Dominican Republic, Jamaica, Cuba, the Bahamas, Bermuda, the United States and Canada. Sandy made landfall in southern New Jersey on 29 October, after 23:00 GMT, with winds of up to 140 kilometres per hour and heavy rains and heading North towards New York. Prior to the impact, the drugstore chain Walgreens had already initiated the activation of their continuity plans, allowing the company to continue to provide their services to the public. The use of mobile drugstores and the construction of temporary facilities were part of the strategy that allowed them to meet the demand for medicines in the affected region. Additionally, as part of its social responsibility strategy, the company was also able to participate in humanitarian assistance operations by transporting 25,000 blankets and three truckloads of drinking water and some other items that several affected organizations were in need of. This response earned Walgreens a recognition by the U.S Secretary of State for Internal Security.

***Business-critical Continuity and coordinated work with authorities***

Another firm affected by Hurricane Sandy was a toy store called Toys"R"Us. Located in Caesars Bay, NY, its facilities were severely affected, prompting the immediate need to set up a new space for sales, especially because holidays critical for the business such as Thanksgiving and Christmas Day were approaching. As a result of a coordinated effort between local authorities, the directors of the company and a provider of facilities-on-demand services, a safe, 11,000 square feet controlled-temperature facility was built in only five days, enabling Toys"R"Us to reopen its doors on the eve of Thanksgiving. These temporary facilities would be used over the next eight months.

**II. CONTINUITY OF OPERATIONS AND GOVERNMENT AT THE LOCAL LEVEL**

Local governments provide a variety of services to the community. Any disruption in the provision of these services, including drinking water supply, drainage, sewerage; public lighting service, cleaning, waste collection and transportation; public marketplace management, maintenance of streets and public spaces such as parks and gardens; and/or public safety services, will certainly cause serious problems to the communities while preventing local authorities from meeting their constitutional obligations.

Locally, Continuity of Government (COG) refers to the planning process aimed at allowing us to protect and secure critical infrastructure, that is, public service infrastructure required for the functioning of society. In addition, it contributes to the efforts to preserve the legality of the existing Government, protect the general interest of society, safeguard the legally established form of Government, and enforce the political and constitutional order for the purpose of ensuring



service availability, credibility and integrity as well as institutional resilience to ensure the functioning of the community as a whole.

## **1. Historical background and importance of Continuity of Government at the local level**

According to Hill (2013-1), the concept of Continuity of Government dates back to the war scenarios of the Contemporary Era. The early plans were applied pre-emptively in England during World War II, considering the threat posed by aerial bombings to its population and institutions. Those plans did not only establish criteria to evacuate the population in areas under bombardment, but also included the relocation of strategic jobs and activities in the English society. Thus, the Art Collection of the National Gallery, the Central Bank of England, the productions of the BBC television network, the postal services, and numerous private businesses were relocated. The Plan was also enforced to relocate nearly 23,000 public servants, so they could work in safer places, and to relocate the War Cabinet and the Parliament. Later on, during the Cold War, facing the threat of a nuclear attack, it is possible to identify the construction of shelters for the population or bunkers for the government authorities to keep them and the communities safe. It was precisely during the 1950s and 1960s when the debate over Continuity gained prominence, considering the threat of a nuclear war or attack. As a response to such catastrophic scenario, the efforts were refocused to ensure the permanence of the government institutions and to uphold the political leadership and the constitutional order through the establishment of parallel government structures. As the Cold War finished, the latent threat of a nuclear attack disappeared, along with the efforts to establish a Continuity of Government strategy. However, after the turn of the century, and as response to the terrorist attacks against the World Trade Centre in New York; and against the Pentagon, in Washington, on September 11, 2001, the debate on having a Continuity of Government strategy regained importance and interest. The main concern of this new endeavour was to figure out how to hold the political and constitutional leadership, and how to ensure the continuity of operations and the provision of key government services.

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**2. A holistic view of the concept of Continuity as regards local government activities and institutional arrangements for continuity**

One of the main mistakes made by those responsible for managing emergencies at the local level has been, and continues to be, the fact that they tend to see and do their work in the context of local government (Stephens and Grant, 2001), which prevents the concept of Continuity from being addressed in a systematic and comprehensive manner. The operational response to incidents that occur in our communities is detached from and has no channels of communication with the substantive, strategic and functional responses for the management of their impact.

Furthermore, although some national legislations provide some controls for COG, particularly those related to the line of succession in key Government positions and functions, public officials and decision makers usually do not have a conceptual framework that allows them to recognize their importance, a conceptual framework establishing specific roles and responsibilities.

Like private companies – although in varying degrees due to the nature and complexity of their activities and responsibilities – Governments face threats that put the fulfilment of their functions and the provision of services to the community at risk. Such threats can be grouped into two major categories: i) threats posed by natural phenomena; (ii) threats caused by human beings, either intentionally or by accident.

An adequate response to these threats calls for a cross-cutting effort leading to a true effective inter-institutional communication and coordination. Such response should be strengthened through institutional arrangements to support the need to adopt COG policies and facilitate – with rules or incentives – cross-relations between the different players, recognizing that the lack of such arrangements adversely affects the functioning of local public administration and the development of the community.

**3. Examples of the implementation of continuity plans*****Human Influenza in Mexico (2009)***

At the time, and as part of the preventive measures adopted by the Government of Mexico, it was announced that their continuity plans had been activated with the partial closure of government offices, closing non-critical offices for Government operations. A call was also made to private companies to close their doors as well, except for those offering basic services to the population, including transport, waste collection, hospitals, drugstores and grocery stores. On that occasion, the then President Felipe Calderón announced that “... *There will be no Government activities that are not fundamental for citizens, and also no private sector activities that are not fundamental to common life. So from 1 to 5 May there will be no activities, there will be a new holiday, except, of course, for all those activities relative to the provision of goods and services that are essential to the community or to community life itself.*”

***Use of social media in the Public Sector***

During an emergency, communication between service providers is crucial. Washington State Department of Transportation has promoted and adopted a best practice to use Twitter as a communication tool in case of emergency. At the time, the chief information officer for the Department Lloyd Brown described the use of social media by claiming that “*in an emergency, many people enter our website, causing our servers to crash; this usually happens when we have*

*snow storms and other weather events. We already know that, faced with an emergency of this kind, we can update our twitter account and our blogs with our phone numbers or any tool that we may have at hand. It provides an opportunity to ensure the continuity of operations in our office."*

### **11 September 2001**

A Washington Post article entitled *Shadow government is at work in secret* reported that, since 11 NOV, around 100 high officials from various agencies are living and working in a safe area outside the District of Columbia as part of the COG strategy: Officials designated to do the so-called bunker duty live and work 24 hours a day in underground facilities, away from their families. Officials active in the shadow government are replaced every 90 days.

## **III. PUBLIC-PRIVATE PARTNERSHIPS AS STRATEGIC ELEMENTS FOR THE CONTINUITY OF OPERATIONS AND GOVERNMENT AT THE LOCAL LEVEL**

The private sector has long been considered just a donor of humanitarian aid or a contractor in the reconstruction stage, but private sector firms should actually be seen as a key partner to Government institutions because of their strategic role in the recovery of a community and its people. Moreover, in the aftermath of increasingly devastating disasters that have a significant impact on business performance, seriously affecting competitiveness and long-term sustainability (GAR 2013), it is important that the public and private sectors work together, taking advantage of the potential ability of the private sector to supplement government action in disaster risk reduction and capacity building at the local level.

### **1. Business Continuity and Continuity of Government as a tool for Disaster Risk Reduction (DRR)**

Only an organization that is aware of the internal, external and shared<sup>2</sup> risks they face will be able to establish control mechanisms to reduce the probability of disaster occurrence and/or to mitigate their negative impact on society. The coordinated work and joint efforts of the public and private sectors to build institutional resilience schemes based on the concept of continuity help ensure the development of our communities. As already said, disasters can cause important damage, potentially hampering the economic and social development of the communities if preventive measures to mitigate their negative impact are not taken.<sup>3</sup>

At present, Continuity – in its three conceptual levels, COOP, COG and COD – is described as a set of preventive measures, a useful tool for mitigation and institutional resilience in coping with risk scenarios.

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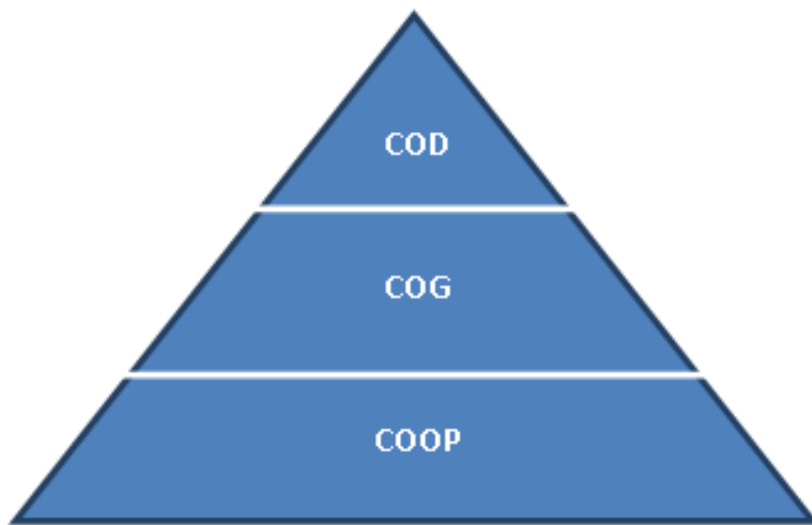
<sup>2</sup> A shared risk is a risk that an organization does not identify as its own but is adopted or acquired by them as part of their relations with other organization(s).

<sup>3</sup> As is the case now in the State of Sonora, Mexico. On 7 August, a "structural flaw" in a container at the copper mine Buenavista del Cobre, owned by Grupo Mexico, one of the largest international mining consortiums, resulted in the spillage of acid into the riverbed of Bacanuchi River, subsequently reaching other tributaries of the Sonora River. This required the closure of 33 water wells that supplied water to seven municipalities in the region, affecting the social, economic and productive activities of its 22,000 inhabitants. Even though some control measures have been taken to bring back the affected communities to normality (the National Water Commission made available 32 tanker trucks for the distribution of drinking water as well as the use of 10 water treatment plants), livestock and farming, trade and in general the economic stability of the region have decreased severely. Efforts made to mitigate the impact do not seem to have been effective because of an apparent lack of foresight.

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**2. Business Continuity vs. Continuity of Government**

Business Continuity or COOP is a process of individual planning aimed to ensure that public institutions and society continue to operate and function in disaster situations. Furthermore, Continuity of Government (COG) is intended to preserve the legality of the existing Government, protect the general interest of society, safeguard the legally established form of Government, and enforce the political and constitutional order, while requiring that each institutionalized power of the nation is duly equipped with the necessary capacity to guarantee its functionality. Thus, COOP aims to ensure that society organizations can continue to fulfil their essential functions during an emergency or incident threatening to disrupt their daily operations, and Continuity of Government seeks to maintain the line of succession in political leadership and the legitimacy of Governments, while upholding the current constitutional mandate. Together, COOP and COG create institutional capacity conditions for basic institutional operation and coordination among sectors that pave the way towards Continuity of Development (COD), which places emphasis on the mitigation of disaster impact on the productive apparatus, thus preventing its financial bankruptcy, protecting jobs and productive activities, and ensuring the functioning of the economy and social development. (Hill, 2013-1).

**CHART 6****Continuity levels: COOP, COG and COD**

Source: Briscoe, 2007.

**3. Consolidation of Continuity of Operations and Continuity of Government**

Considering that the concepts of COOP and COG promote the building of local capacity and resilience, it is important that we move forward to achieve their full implementation as a DRR strategy.

#### IV. CONTINUITY OF OPERATIONS (PCOOP) AND CONTINUITY OF GOVERNMENT (COG) IMPLEMENTATION GUIDE

##### *Planning Process for Integration of the Plan for Continuity of Operations (PCOOP)*

The preceding step to the integration and development of a PCOOP is to identify risks, threats and vulnerabilities that could have a negative impact on the operations of an organization. Its exercise provides a framework for building institutional capabilities and organizational resilience for effective response.<sup>4</sup> Its approach comprises ten (10) stages or professional practices:

#### 1. Project Design and Management

Establish the need for a Plan for Continuity of Operations, including the definition and support of those responsible for the Plan and decision makers (high institutional hierarchy), and consensus on deadlines and budget preparation.

#### 2. Evaluation of Risks and Control

Consists of identifying risks scenarios and its analysis is to understand the threats we face and the vulnerability to which the organization is exposed. It is definitely a key decision-making element. For consideration are those risks and threats of the geographic location itself in which the organization is located and those acquired from dependencies and interdependencies in its operational processes. The objective is to be able to make risk assessment in order to establish controls that would minimize the probability of occurrence or to mitigate its adverse impact.

**TABLE 1**  
**Risk matrix**

<b>PROBABILITY</b>	<b>Final</b>	5	20	45	90	125
	<b>Very High</b>	4	16	36	64	100
	<b>High</b>	3	12	27	48	75
	<b>Possible</b>	2	8	18	32	50
	<b>Low</b>	1	4	9	16	25
		<b>Low</b>	<b>Average</b>	<b>High</b>	<b>Severe</b>	<b>Catastrophic</b>
<b>IMPACT</b>						

<sup>4</sup> Professional Practices of the Disaster Recovery Institute International (DRI International). Available at: <https://www.drii.org/certification/professionalprac.php>.

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**3. Impact Analysis**

It is the process through which impact is assessed in view of possible interruption of operations in an organization (assessment of the consequences in case of "x" event). **The constant question is how can "x" event affect (impacts) our organization.** As a result of the impact analysis, it is possible to prioritize efforts in building a PCOOP and:

- Understand the key functions/processes, the priority of each one and the estimated recovery time objective (RTO)
- Define the recovery point objective (RPO)
- Support the process of determining the appropriate recovery strategies.

**4. Development of Continuity Strategies**

At this stage, the data collected during the risk evaluation and BIA is used to identify controls and develop continuity and recovery strategies for the entity's operations and technology systems. Controls and strategies must meet with the RTOs and RPOs established in the BIA.

**5. Response to Emergencies (operative nature)**

Requirements are defined to develop and implement the plan for response to emergency situations that may endanger the entity's employees, visitors or other assets. The Emergency Plan documents how the entity will respond to emergencies in a coordinated, timely and effective manner, in such a way that the situation can be controlled until the arrival of the first responders.

**6. Development and Implementation of a Plan for Continuity of Operations**

The PCOOP is the documented evidence of identification of procedures which will enable the entity to continue or recover – when faced with interruption of its operations – in response, recovery, reinstatement and reestablishment of these operations at a predefined level.

**7. Awareness and Training Programmes**

Development of a programme to establish and maintain awareness and training, and enhance the skills required to develop, implement, maintain and execute a PCOOP. Its purpose is to provide practical guidance on the objectives of PCOOP.

**8. Maintenance, Execution and Evaluation of Programmes**

The purpose of this stage is to establish a programme for maintenance, execution and evaluation of PCOOP. This process can be accomplished through:

- Step 1:** Review the PCOOP and identify sections that may pose a challenge in its compliance (little realistic).
- Step 2:** Implement an exercise completion schedule (document and socialize).
- Step 3:** Establish a framework (audits) for evaluation -Visualize and prioritize the accomplishment of goals.

This comprehensive evaluation process requires documentary evidence of progress in the implementation process, the results of the assignments and compliance of objectives established by the organization as well as established standards (as appropriate).

## **9. Media Management and Communications amid Crises**

In a Plan, the framework through which media management will be carried out during a crisis situation is established. A Communications Plan of this nature also establishes the need to maintain communication with employees and strategic stakeholders – timely and efficiently – during response and recovery efforts.

## **10. Coordination with Local Authorities**

Establish policies and procedures to coordinate response, continuity and recovery activities with local, regional and national authorities.

### ***Structure of the Plan for Continuity of Operations***

This strategy provides a minimal structure of a Plan for Continuity of Operations, including a basic manual as a guide for integration and some text that could be used. This strategy may change according to operational needs and strategic objectives of each organization.

#### **1. Introduction and Legal Basis**

Include text: *The Plan for Continuity of Operations (PCOOP) establishes operational procedures to maintain key functions and criteria for reactivation of substantive operations of \_\_\_\_\_.*

*This plan was prepared in accordance with the recommended contents in (identification of the guide, rule, standard or best practices used in the integration of this Plan) that provides a structure for its development and stipulates the incorporation of continuity approach in plans and training programmes at public, private and social institutions for preparedness and response in emergency situations.*

*In case of possible disaster scenarios that can cause interruption in the entity's operations – public or private – it is top priority to have integral support, enabling organizations to face any event.*

*Therefore, the purpose of implementing a PCOOP is to ensure the functioning of the entities' operations, processes and substantive systems, and to reduce the risks of collapse of such operations, processes and systems.*

*In this way response capacity is strengthened to face any kind of scenario, basic operativity is guaranteed, and operativity recovery time is minimized in the case of interruption (Organizational resilience conditions).*

*Implementation of the Plan for Continuity of Operations is based on the laws that are mentioned below:*

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

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## 2. Purpose

Include text: *Establish the objective of PCOOP.*

*Guarantee continuity of operations of \_\_\_\_\_ when faced with a scenario of:*

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_
- e. \_\_\_\_\_

## 3. Scope

Include text: *The PCOOP of \_\_\_\_\_ provides guidelines for the entity's continuity of operations, development of stages comprising the plan and the defined methodologies for its execution.*

## 4. Key Functions<sup>5</sup>

Include text: *In the PCOOP, key functions are classified according to their level of importance to the organization.*

Priority	Key Function	Human Resources	Material Resources	Data	Dependencies and Interdependencies
1					
2					
3					

<sup>5</sup> The first step in the integration of the PCOOP is to identify the key functions and essential tasks of the institution. This may look easy to do, but it is not always so. The essential functions should be understood as those that meet one or more of the following characteristics:

- They define the organization;
- They offer vital services to the community or to other organizations to which they are suppliers (fuel, electric power, drinking water, food supply, healthcare, others);
- They perform authority actions or functions (authorizations, permissions, licenses, suspension of individual guarantees);
- They safeguard security and well-being of the general population (overall first responders: armed forces, police, medical emergency services, hospitals, firefighters);
- They support the productive and industrial base during an emergency (raw material, transportation of goods, financial services).

The dependencies/interdependencies with other organizations should be identified, i.e. those functions of the organization which require the participation of another organization in order to be achieved. Likewise, the processes of external organizations or institutions depending on the continuation of our operations should also be taken into account, so that they can be able to perform their functions. For this reason, it is important that the planning process is conducted under an inter-institutional approach and in coordination with our strategic partners.



## 5. Alternative Offices<sup>6</sup>

Include text: *If access to the premises of \_\_\_\_\_ is not possible, the following alternative facilities have been considered:*

<b>Alternative Facility 1:</b>	
<b>Location:</b>	
<b>Contact Person:</b>	
<b>Landline Phone:</b>	
<b>Mobile Phone:</b>	
<b>Pager:</b>	
<b>Other:</b>	

*Should Alternative facility 1 be unavailable, the alternate facility will be:*

<b>Alternative Facility 2:</b>	
<b>Location:</b>	
<b>Contact Person:</b>	
<b>Landline Phone:</b>	
<b>Mobile Phone:</b>	
<b>Pager:</b>	
<b>Other:</b>	

## 6. Line of Succession and Decision-Making<sup>7</sup>

Include text: *The individual responsible for operations described in this Plan with decision-making authority in this organization is \_\_\_\_\_.*

<b>Incumbent:</b>	
-------------------	--

<sup>6</sup> Determining alternative work places is a very important task, but it depends on the amount of resources of each organization. Since it is not possible to know the extent of the damage that any given phenomenon might cause, the best option would be having alternative offices in different geographic locations; however, this is not always possible. Overall, alternative offices should not be too near the main facilities. The alternative facilities must have the emergency communication systems that were anticipated, areas for feeding, hygiene and rest for the key staff identified in the PCOOP, and access to the vital information included in the backup registers and databases. Moreover, alternative facilities must have food supplies and, if possible, medicines and special equipment that the staff might need over thirty days, or as many days as established in the PCOOP.

<sup>7</sup> Establishing the line of succession leader(s) of the organization is of vital importance for PCOOP. Overall, mostly in public organizations, the internal regulations of the dependencies determine this line of succession based on the hierarchy of their own organization chart. Notwithstanding, if needed, and considering the nature of the responsibilities of an institution, it is possible to follow a line of succession different from the one that has been established per hierarchy, as long as such provision is registered in the corresponding legal documents. At least as far as the head of an organization concerns, it is convenient to designate up to four positions below in the line of succession. By establishing a line of succession, the organization is capable to carry out an organized and pre-defined transition of leadership. It should be taken into consideration that successors may act on behalf and in representation of the incumbent, and perform his/her responsibilities in case of death or incapacity to carry out his/her duties (definition of absence). A line of succession should also be established for other key positions within the organization. The rules and procedures to be followed in case of succession should also be established. They might include:

- Communication of the succession inside and outside the organization;
- Operational period (for hours, days or unlimited);
- Reasons for succession;
- Legal basis;
- Inform (if applicable) the temporal, geographic, and/or organizational limitations of the successor.

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<b>Incumbent:</b>	
<b>Landline Phone:</b>	
<b>Mobile Phone:</b>	
<b>BB Pin</b>	
<b>Pager:</b>	
<b>GPS:</b>	
<b>Other:</b>	

*In the absence of \_\_\_\_\_, responsibility will be transferred to the following persons – in their condition as successors- according to the succession line established:*

<b>Substitute 1:</b>	
<b>Landline Phone:</b>	
<b>Mobile Phone:</b>	
<b>BB Pin</b>	
<b>Pager:</b>	
<b>GPS:</b>	
<b>Other:</b>	

<b>Substitute 2:</b>	
<b>Landline Phone:</b>	
<b>Mobile Phone:</b>	
<b>BB Pin</b>	
<b>Pager:</b>	
<b>GPS:</b>	
<b>Other:</b>	

### 7. Human Resources<sup>8</sup>

Include text: *Public servants and their substitutes identified for first stage response upon activation of the PCOOP are:*

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<sup>8</sup> **Management of Human Resources.** Once the essential functions are identified in the most precise way, an analysis must be made of all the processes that the organization performs in order to accomplish such essential functions. This allows for separating the essential staff needed to carry out the function from the staff performing support tasks but can be dismissed for a certain period. When this division is established, it is important to clearly state that everyone's work is important, and that the fact of not being included in the roster of the PCOOP does not mean that someone's daily effort is disregarded. Secondly, another analysis must be made to know if, in case of emergency, the process can be carried out with less staff than usual, without compromising the quality of the process or the staff safety. This analysis allows for determining the minimal staff needed in case of contingency and also identify who they are. In this stage of planning, it is important to establish which members of the organization are trained to perform tasks in other areas, or in a given case, the members who require a minimal training to carry out such tasks. That way, a support internal staff structure is established to execute tasks in diverse areas in critical situations. Thirdly, it must be decided whether the situation demands the implementation of additional security measures, given the characteristics of the emergency or disaster. For instance, setting a decontamination zone to access the facilities; suspension of internal food services; use of personal protection equipment inside the facilities; or any other measure deemed necessary, according to the contingency. Finally, schedules and work shifts might change in case PCOOP is activated. Therefore, the Plan must ensure a proper payment for extra hours or change of work shifts to the staff included in the roster of the Continuity Plan. Staff management is important in the notification process established in the PCOOP, for both activation and deactivation.

First Substitutes	Substitutes	Contact Details

## 8. Dependencies and Inter-dependencies

Include text: *The key functions/processes of the organization have dependencies/ inter-dependencies, thus work has been planned and controls have been established for their proper implementation.*

DEPENDENCY/INTERDEPENDENCY		CONTACT/REQUIREMENT (data)
<b>Function of Support 1</b>	<i>Key Function Description</i>	
<i>Dependency Description</i>		
<b>Function of Support 2</b>		
<b>Function of Support 3</b>		

## 9. Interoperability of Communications<sup>9</sup>

Include text: *In \_\_\_\_\_, the interoperability of its communications is protected through MATRA pager services, satellite signals, mobile telephony as well as voice services, data and landline telephony. A redundant communication system has been jointly created to guarantee remote interaction to respond at the activation of the PCOOP.*

<sup>9</sup> **Interoperability of Communications.** The strategic management of communications is a fundamental element for the PCOOP. It is always important to underscore the significance of the communication systems, including infrastructure and contents, for the appropriate functioning of any organization, either public or private. Especially in case of emergency or disaster, the staff must be able to communicate with the workmates inside the institution and with suppliers, external clients and strategic partners either via the usual means or via alternative means. Interoperability is one of the features that the emergency communication systems must have. Nowadays, there are systems that enable communications between VHF and UHF signals, common telephony, mobile telephony, and voice over IP. The systems must also be portable, in order to maintain communications even when the key staff is in transit. In addition, it is recommended to have the system immediately available and able to operate for at least thirty days without need of maintenance or repairs.

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**MATRA Pager.** They are characterized by having higher levels of security, making interception of communications impossible, thanks to its sophisticated encryption algorithms, superior communications transmission quality and capacity for the implementation of a national coverage system.

PROG.	USER	EQUIPMENT	MODEL	SERIAL NO.	RFSI
1		PORTABLE	SMART		
2		PORTABLE	SMART		
3		PORTABLE	SMART		
4		BASE	SMART		
5		MOBILE	EASY+		
6		MOBILE	EASY+		

**GPS Telephony.** Unlike cellular phones, mobile phones connect directly to a telecommunications satellite, the main advantage being the ability to communicate from locations where landline phones or cellular phones have no coverage. \_\_\_\_\_ has 3 devices -2 portable and 1 landline:

USER	NUMBER
1	
2	
3	

**Mobile Telephony.** \_\_\_\_\_ has 6 BlackBerry devices that incorporate portable email service, address book, calendar, tasks list, as well as other phone capacities.

USER	NUMBER	PIN BB

**Mobile Broadband Cards.** \_\_\_\_\_ has 4 Mobile Broadband cards that allow for simultaneous transmission of various kinds of data, increasing the speed of effective transmission. They are under the custody of \_\_\_\_\_.

## 10. Backup/Protection of Information and Databases<sup>10</sup>

Include text: *The substantial information generated by \_\_\_\_\_ is protected by the Systems Director:*

- a. *The data is updated and protected every \_\_\_\_\_ days, weeks, months;*
- b. *It is partly stored in the strongbox at the Office \_\_\_\_\_ and,*
- c. *The other part that is stored on a magnetic or electronic device is protected by \_\_\_\_\_ in a safe and secret place.*

## 11. Activation of the PCOOP

*Include text: The responsibility of partially or fully activating this Plan rests with: \_\_\_\_\_, in whose absence responsibility will rest with \_\_\_\_\_. The notification process initiates with (define the notification protocol: the line of communication outlined for activation of the PCOOP will also be used to notify the conclusion of the crisis and commencement of normal operation). Upon notification of the PCOOP, indication would be given as to:*

- a. *Whether it is a general activation (all areas), or activation of only one or more areas;*
- b. *Whether relocation to the Alternative Facility is necessary; and,*
- c. *Whether activation of substitutes and reserves is necessary according to that established by this Plan or to be applied as normal workload of the organization.*

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<sup>10</sup> **Backup/Protection of Information and Databases.** Vital information is that required for the correct functioning of the essential functions. The information is kept in registers that can be in any storage medium, whether it is written, printed, sound recording, visual, electronic, computerized or holographic. Certainly, the essential functions are as diverse as the vital information related to each of those functions. However, once the records and databases containing vital information are identified, alternative mechanisms to access that information must be designed, established and tested. For that purpose, several methods can be employed: from the most traditional and inexpensive, for instance, photocopies of the information to be safeguarded in two or three alternative facilities, to the acquisition of storage space in virtual hard disks, so once all the information is digitized, it can be retrieved by authorized members of the organization via an Internet connection. The most convenient option is having a combination of physical systems with the printed information, if possible, plus electronic records, considering that both types of storage means have strengths and weaknesses. The purpose is to include a disaster recovery plan (DRP) for the systems area of the organization.

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## 12. Socialization, simulations, decision-making and other exercises<sup>11</sup>

Include text: *Establish Schedule of exercises that allow functionality test of the PCOOP.*

Type of Exercise	Person Responsible	Scheduled Date	Lessons learned	Changes proposed to the PCOOP

## 13. Review and Update of the PCOOP

Include text: *Define the update process schedule. Identify the individual responsible for completing this process.*

*The Plan for Continuity of Operations of the \_\_\_\_\_ will be updated based on compliance with:*

- a) *Establishing time points in the year to update the Plan (regularity)*
- b) *Following each incident based on "lessons learnt";*
- c) *Each time any officials identified in this Plan change;*
- d) *As requested by \_\_\_\_\_*

Date Created/Updated	Person Responsible	Next Scheduled Review

**PLAN FOR CONTINUITY OF OPERATIONS OF THE DGPC, VERSION:** \_\_\_\_\_

**DATE OF UPDATE** \_\_\_\_\_

**Updated by:** \_\_\_\_\_

<sup>11</sup> **Socialization, simulations, decision-making and other exercises.** The PCOOPs of any institution must be instructed, tested and exercised to ensure that they meet the goals and objectives they bring forward. The plans are not to be written and kept in the drawers of the planners. The design of exercises is very helpful for the process of socialization of the PCOOP, and also to test its proper functioning. A successful exercise or simulation is not necessarily the one in which everyone feel they did a good job, but rather one in which areas of opportunities and improvement are detected, and it is even possible to include lessons learned or best practices from other organizations. The exercises can be designed according to the size and needs of every organization. Some examples of the type of exercises that can be conducted are:

- **Orientation:** Informative session to familiarize the staff of the organization on the adopted policies and procedures.
- **Decision-Making:** Simulation exercise, limited to finding solutions to problems presented through group discussion.
- **Simulation:** Exercise aimed at evaluating a specific activity. These are events that seek **knowledge on measures and safety policies by rehearsal.**
- **Functional:** Field exercises with limited simulation aimed at evaluating the response system and available resources.
- **Large Scale:** These are inter-institutional events that simulate a real event and entails deployment of resources to evaluate those procedures that guarantee the safety of the people.

After conducting an event, feedback sessions with all the participants are important; no one but the staff put to the test can better inform on the weaknesses of the PCOOP and the areas that need to be improved.

**14. Return to normal operations**

\_\_\_\_\_ *does not suspend any of its key or essential functions; it only retracts those administrative or support tasks. Therefore, technically it never ceased functions thus "recovery operations time" is considered ZERO.*

*In this regard, it is estimated that the return of the operating personnel performing administrative functions can be retracted during a period of 30 days.*

**Annexes of the Plan** *(include annexes as necessary).*

**V. MIMIMUN GUIDE FOR EVALUATION OF CONTINUITY IMPLEMENTATION**

The purpose of this guide<sup>12</sup> is to measure the implementation level of a continuity strategy, identify deficiencies and determine the effectiveness of continuity plans. It is a practice applicable and adaptable to institutions and organizations from the public and private sector. The purpose, document the existence of organizational capabilities to ensure continuity of operations in an organization.

The elements to be evaluated are included in the basic elements of a PCOOP; other elements may be added according to the nature and needs of the organization:

1. Key Functions/Processes
2. Line of Succession
3. Chain of Command
4. Alternative Facilities
5. Interoperability of Communications
6. Protection and Backup of Information and Databases
7. Management of Human Resources
8. Update Programmes

To use this Guide, the person responsible for the PCOOP is encouraged to convene the heads of the responsible areas. Specific actions or tasks for each item are listed and YES, NO or NA (not applicable) response is given. A space is also provided for comments and important annotations.

**Format for Evaluation of the PCOOP**

Key Function/Process	Total		
	YES	NO	NA
The key functions/processes of the organization have been identified and defined as those in the PCOOP as functions/processes to be carried out in any emergency or disaster scenario Observations:			
All requirements –human and material- have been documented for each key function/process Observations:			

<sup>12</sup> The *Continuity Assistance Tool* developed by the Federal Emergency Management Agency of the United States was used as a guide.

The Leadership Team has validated the key functions/processes identified in the PCOOP			
	Total		
<b>Key Function/Process</b>	YES	NO	NA
Observations:			
The recovery point objectives have been identified for each function			
Observations:			
Performance method of each key function/process has been identified and documented			
Observations:			
The dependencies and interdependencies required for accomplishment of each key function/process have been identified			
Observations:			

	Total		
<b>Line of Succession</b>	YES	NO	NA
Provisions that enable an orderly and predefined transition of leadership positions if an organization’s leader is unavailable during a continuity event of the PCOOP			
The line of succession of the organization has been documented and all organizational changes resulting from these changes have been identified			
Observations:			

	YES	NO	NA
The line of succession for other key positions in the organization have been documented			
Observations:			
At least three levels of substitutes to key positions have been considered and documented			
Observations:			
The line of succession is approved by the legal section of the organization			
Observations:			
A notification process for activation of the line of succession is documented			
Observations:			
Carrying out exercises in the PCOOP have been considered to allow familiarization with this aspect of the PCOOP			
Observations:			



	Total		
	YES	NO	NA
<b>Chain of Command</b>			
The person(s) authorized to act on behalf of the organization for specific emergency purposes are also clearly identified			
	YES	NO	NA
The legal basis for the chain of command has been documented Observations:			
There are documents that authorize staff to comply with specific functions or tasks Observations:			
The scope and time or circumstances in which the granted faculties are valid (accountability) have been documented Observations:			
The persons responsible for assuming specific faculties of the provisions of the PCOOP have been notified Observations:			
Carrying out exercises in the PCOOP have been considered to allow familiarization with this aspect of the PCOOP Observations:			
	Total		
<b>Alternative Facilities</b>	YES	NO	NA
Alternative space from where those designated responsible from the organization can operate during the activation of the PCOOP			
	YES	NO	NA
Alternative offices have been identified for operations during the occurrence of an incident Observations:			
It has been defined that these alternative offices be located far from other facilities that pose a risk or are located in a known danger zone Observations:			
The risks for continuity have been identified (at alternative offices) Observations:			
A formal agreement of understanding -memorandum or letter of intent (or contract) for the use of alternative offices has been approved Observations:			
The alternative offices have the material resources needed to implement the key functions/processes			

<b>Alternative Facilities</b>	SI	NO	NA
Exercises have been carried out to establish relocation time and operations viability at the alternative facilities Observations:			
	Total		
<b>Interoperability of Communications</b>	YES	NO	NA
Strategic management of communications. Availability of emergency communications systems			
	YES	NO	NA
Minimal communication requirements have been established Observations:			
Communication strategy in the event of a disaster has been identified Observations:			
Availability of communication systems at the alternative facilities Observations:			
Capability to maintain communication among the staff members during relocation to the alternative facilities Observations:			
Availability of alternative communication systems Observations:			
Capacitation/Training of staff in the use of alternative communication systems or IT systems Observations:			
Prioritization of access to communication systems Observations:			
	Total		
<b>Protection and Backup of Information and Databases</b>	YES	NO	NA
Identification, protection and availability of information systems, applications, documents, reports, etc.			
	YES	NO	NA
	Total		
<b>Protection and Backup of Information and Databases</b>	YES	NO	NA
The information protection program has established the method by which it will be recovered in the event of activation of the PCOOP			

Observations:			
DRP is considered as part of the PCOOP			
Observations:			
An inventory of key information is kept, as well as its location and access instructions			
Observations:			
Availability of a scheduled program for data backup is ensured			
Observations:			
Availability of data at the alternative facilities			
Observations:			
Availability of a mirror server, using cloud or any other backup method			
Observations:			
The DRP is reviewed periodically to establish new security risks and to update data			
Observations:			
Exercises are carried out to evaluate data management capacity and update			
Observations:			
	Total		
<b>Management of Human Resources</b>	YES	NO	NA
Policies and procedures related to the human capital of the organization: payments, absences, leave, working hours, benefits, distance working, contracts, notification process, etc.			
	YES	NO	NA
Key staff to conduct the PCOOP have been identified			
Observations:			
This staff has sufficient capacity to perform key functions or support if the PCOOP is activated			
Observations:			
A roster of the persons activated for the PCOOP has been documented			
<b>Management of Human Resources</b>	YES	NO	NA
Observations:			
Acceptance of these roles has been documented			
Observations:			

A contact and PCOOP activation notification system has been established Observations:			
Protocols have been established with employees to maintain communication in order to inform about the status of the organization Observations:			
Capacitation and training has been established for continuity staff Observations:			

	Total		
	YES	NO	NA
<b>Update Techniques and Corrective Measures</b>			
Availability of documentary evidence of an exercise program to determine the ability of the organization to execute the PCOOP during an incident Observations:			
Exercises established in the annual schedule have been carried out: notification, step-by-step review, simulations, decision making, functional and/or large scale Observations:			
	YES	NO	NA
The results of the exercise are documented; including type of exercise, the day it was carried out, record of the persons who participated, record of the person responsible for carrying it out Observations:			
Data sessions are held on the results of the exercises Observations:			
Lessons learned are recorded and corrective measures are taken within the PCOOP framework Observations:			
Documentary records are kept on the partial or total activation of the PCOOP and the lessons learned have been recorded Observations:			
The lessons learned from the partial or total activation of the PCOOP are converted into corrective measures and updates of the PCOOP			
	Total		

<b>Update Techniques and Corrective Measures</b>	YES	NO	NA
Observations:			
	Total		
<b>Summary of Results</b>	YES	NO	NA
Key Functions/Processes			
Line of Succession			
Chain of Command			
Alternative Facilities			
Interoperability of Communications			
Protection and Backup of Information and Databases			
Management of Human Resources			
Update Programmes			

## CONCLUSIONS: CHALLENGES AND OPPORTUNITIES

### 1. Global vulnerability and local impact

One of the most important challenges we face is perhaps the vulnerability to which we are exposed as a result of a globalized world and the emergence of new threats and risks. The task of planning and preparing plans and programmes to address the unpredictable today. It is important to work assuming that it is not necessarily a scenario of predetermined risk, but the risk that could be affecting our organization in the future.

There are several examples today that show entanglement of threats arising in a given space but which have the potential to generate global consequences, such as the current outbreak of Ebola Virus Disease (EVD) that has not only affected West Africa, which is already a change in the history of this pathogen, but also threatens any country with constant communication with that region. In events closer to our continent, something similar is happening with the rapid expansion of the chikungunya virus that is transmitted to humans by our old acquaintance, the mosquito *Aedes aegypti*, the same vector of yellow fever and dengue.

In other crises directly caused by humans, the situation in the Middle East or the conflict between Ukraine and Russia and its consequential economic sanctions put several public and private partners in the need to address scenarios that only six months ago were not foreseen under its scope of planning. Did the members of the Administrative Council of Malaysia Airlines and its shareholders ever consider the enormous impact that the Ukraine-Russia conflict would have on their future?

The purpose of pointing out these examples is to stress the importance that should be given to continuous monitoring and analysis of the international level by senior management of organizations or political leadership of governments. Gather public information, analyze it and develop scenarios of what is occurring locally and beyond the borders is a strategic task that needs to be planned and executed systematically by trained persons and with a proactive approach to various potential threats.

### 2. Continuity of Operations is a discipline in constant change

Continuity of operations is no longer an exclusive information technology issue. In its evolution, it has been depicted as an integrative discipline of the efforts to reduce disaster risk and mitigate adverse impact of its occurrence. Given its strategic planning nature within an institution, it requires active participation by all areas.

<b>TABLE 2</b>			
<b><u>Plan for Continuity of Operations</u></b>			
<b>Emergency Plan (operative nature)</b>	<b>Communication in Crisis Plan (social nature –RP)</b>	<b>Continuity Plan (strategic nature)</b>	<b>Recovery Plan (technological nature DR)</b>

For this reason, in some countries, there is a tendency to appoint a crisis manager within the organizations. A position with a level of authority and responsibility equivalent to that of senior management, precisely because it is a way to generate real commitment by the institution to develop, practice and establish a PCOOP. The senior executive level figure allows for the use of

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resources and information from all areas of the organization, with the ultimate goal of being prepared individually (by area) and the organization as a whole, always greater than the sum of the parts.

### **3. Development of a PCOOP does not mean the end of the effort**

Culmination of the PCOOP can lead to the misconception that the job is finished and with it the objectives proposed from the start is guaranteed. However, this is not so. The PCOOP should be understood as a continuous process of review and monitoring, taking into consideration that the threats are no longer static and constantly ask what could occur and how the organization could be affected. Therefore, it should be subject to testing through exercises and simulations, constant verification of its standards and assimilation by all relevant partners of the organization.

A common mistake in all areas is development of plans and programs merely to comply with the rules and then forget them in the archive. However, PCOOP is strategic in nature; therefore, it is a live document that provides a guide for continuing essential activities of the organization. We must remember that changes in the internal policies of the organization or business, in procedures and processes, can change the structure of key or essential activities and this involves reviewing and, if necessary, modifying the PCOOP in like manner.

Maintenance of PCOOP is an ongoing process that involves educating and creating a corporate culture aware of the importance of continuity. Through awareness and practice, elements are transmitted to respond to critical events and training for execution of response plans are carried out. Through exercises and simulations, the viability of the plan is evaluated, and maintenance and updating ensures correspondence between the PCOOP and internal or external changes in the organization (Engemann and Henderson, 2012).

### **4. Evolution of the Continuity concept: Social Responsibility and Risk Management**

A disaster is directly related to the level of preparation we have and not necessarily to the occurrence of a phenomenon. Today, the COOP is not only a shared responsibility among the various public and private organizations; it is also part of a social responsibility strategy that reflects direct commitment with society.

In open societies, where political and economic freedoms concur, the private sector is the main supplier of goods and services, although participation by public enterprises is common in areas considered strategic or of priority. But, practically in all economic sectors, the fundamental pillar that guarantees the production and distribution of essential goods is private enterprise. Therefore, in addition to being a top priority of an organization, their own survival and continuity of operations is also a priority for the public sector and society in general.

Daily operation of governments rests on a wide range of suppliers that allow daily work of the authority and delivery of goods that state institutions can only offer, such as national defence, public safety, general education, health services for the population without social security, execution of justice and response to emergencies and disasters. In such a way that only with a resilient private sector it is possible to bet on maintaining continuity of governance and development of our societies. Therefore, continuity of operations is added as an additional element of social responsibility as well as those that are already part of this concept.

It should be recalled that, as categories for analysis in some disciplines, division of society and government is useful, but it is nothing more than a theoretical division that is erased in the event of a crisis scenario. Public servants are part of the same population that is affected when a destructive phenomenon occurs in a particular place.

## **RECOMMENDATIONS**

### **1. Promotion of multi-sectoral policies for risk reduction: Adoption of a Continuity strategy**

Understand the strategic nature of the continuity concept as a tool for reducing disaster risks, and measures to mitigate the negative impact of disasters. Promote the development of PCOOP in public and private organizations is a necessity today. It is important to raise awareness of functionality and continuity of operations as a strategy for social responsibility – joint, among sectors – to reduce disaster risk by knowing the areas of opportunity and recognizing its political, economic and social impact.

It is necessary to work together and combine efforts to generate institutional capacities – organizational resilience – for preparedness and response in such a way that all sectors – public and private – can react to the occurrence of a crisis. It is essential to contribute to the sustainable development of communities despite the threats they face, through the implementation of strategies for the effective management of risks not only to save lives, but also to avoid economic losses and setback in the development field.

### **2. Strengthening Public-Private Alliances**

Talking of risk-sharing gives us the opportunity to work on strengthening public-private alliances for disaster risk reduction, especially at local level. Timely exchange of information on risks, relationship and contact with the responsible counterpart, the early warning system, the effort invested in capacity building for preparedness and response and, with it, individuals, groups, organizations, resilient communities. We all have a portion of responsibility in DRR and we must assume it.

However, the level of preparedness and response by governments locally is very different. There may be municipalities or communities with a high level of administrative development that also allows them to be in a better position to face a critical situation, while others may lack the minimum requirements. If a private organization does not encounter a sufficiently prepared government counterpart, then it should expand its view point and improve its administrative political level. It is important to know who is responsible for addressing the impact of an emergency, not only in the most urgent needs of the population, but also in vital areas infrastructure: electricity, telecommunications, drinking water and drainage.

The relation of a public-private alliance goes two ways; what government can do to alleviate the crisis, and the participation that private enterprises should have for the same purpose.



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### 3. Keeping informed of initiatives for Disaster Risk Reduction and Continuity of Operations

If joining forces is the mission, we can optimize the available resources through knowledge of the initiatives in risk reduction carried out in the region, joining one of them. Some of the most recent initiatives are:

- The Campaign *Making Resilient Cities*, promoted by the United Nations Office for Disaster Risk Reduction (UNISDR) although addressed to leaders of local governments, recognizes that making resilient cities is everyone's responsibility, hence the standing invitation to join and contribute.
- Within the framework of the IV Regional Platform for Disaster Risk Reduction in the Americas, reiteration and publicity was made on the validity of the *Voluntary Commitment of the Private Sector to Disaster Risk Reduction and Resilience Building*. Also, emphasis was made on the importance of continuing development of the *Private Sector Alliance for Disaster Risk Reduction* promoted by the United Nations Office for Disaster Risk Reduction (UNISDR), Regional Office – The Americas.
- The Permanent Secretariat of the Latin American Economic System and the Caribbean (SELA) has been working on the issue of *Alliances between the public and private sector for disaster risk management* over the last 4 years and has become an important regional forum for the exchange of successful experiences and lessons learnt: i) the Regional Seminar on "Public Investment and Financial Mechanisms, Insurance and Reinsurance against Disasters in Latin America and the Caribbean" (Mexico City, Mexico. 22 and 23 November, 2010; ii) the Regional Seminar "Cooperation between governments and the private sector for disaster risk reduction in Latin America and the Caribbean: Approaches, progress and challenges" (Panama City, Panama. 17 and 18 November, 2011); iii) the Regional Seminar "Partnerships between the public and private sectors for disaster risk management. Continuity of government and continuity of operations during disasters" (Lima, Peru. 7 and 8 June, 2012); and iv) the Regional Seminar "Partnerships between the public and private sectors for disaster risk management. Continuity of government and continuity of operations during disasters" (Cartagena, Colombia. 1 and 2 August, 2013).

In addition, the Permanent Secretariat has developed several studies on the issue of Public-Private Partnerships for Disaster Risk Reduction, which include: i) Public Investment and Financial Mechanisms, Insurance and Reinsurance against Natural Disasters in Latin America and the Caribbean: Recent Experiences (2010); ii) Guidelines for Cooperation between governments and the private sector for disaster risk reduction in Latin America and the Caribbean: Approaches, progress and challenges (2011); iii) Partnerships between the public and private sectors for disaster risk management. Continuity of government and continuity of operations during disasters (2012) and iv) Business continuity and operations against disasters in Latin America and the Caribbean. Balance and recommendations and Continuity of Operations (COOP) and Continuity of Government (COG): Proposal for implementation in Latin America and the Caribbean (2013). All of them are available on SELA's Web site.

- The Latin American Parliament (Parlatino) proposes the adoption of a Protocol for Disaster Risk Management in Latin America and the Caribbean, a protocol that promotes organizational resilience building and incorporation of an approach for DRR in public policy design, in the development planning process and implementation of emergency response programs. Parlatino commits itself to promote the protocol *via parliaments jointly with national executives*.

Each initiative contributes to the efforts made by all of us to create security and development conditions. It is also necessary to disseminate and publicize the mechanisms and patterns of participation in each. It is necessary to create incentives to increase the number of actors who recognize their commitment to disaster risk reduction through the adoption of the concept of continuity as a strategy of social responsibility.

**ACRONYMS**

## ACRONYMS

<b>BIA</b>	<b>Business Impact Analysis</b>
<b>COD</b>	<b>Continuity of Development</b>
<b>COG</b>	<b>Continuity of Government</b>
<b>COOP</b>	<b>Continuity of Operations</b>
<b>DRP</b>	<b>Disaster Recovery Plan, aimed at the area of Information Technologies (IT Disaster Recovery Plan)</b>
<b>UN/ISDR</b>	<b>United Nations Office for Disaster Risk Reduction (International Strategy for Disaster Risk Reduction)</b>
<b>MTD</b>	<b>Maximum Tolerable Duration</b>
<b>PCOOP</b>	<b>Plan for Continuity of Operations</b>
<b>RTO</b>	<b>Estimated Recovery Time Objective</b>
<b>DRR</b>	<b>Disaster Risk Reduction</b>
<b>SELA</b>	<b>Latin American and Caribbean Economic System</b>

**LIST OF CHARTS AND TABLES**

## **LIST OF CHARTS AND TABLES**

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<b>CHART 3</b>	<b>British Standard 25999-2:2007 Specifications for Business Continuity Management (BCM)</b>
<b>CHART 4</b>	<b>ANSI/ASIS SPC.1-2009. Organizational Resilience: Security, Preparedness, and Continuity Management Systems</b>
<b>CHART 5</b>	<b>ISO 22301:2012 Societal security – Business continuity management systems – Requirements</b>
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<b>TABLE 1</b>	<b>Risk Matrix</b>
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