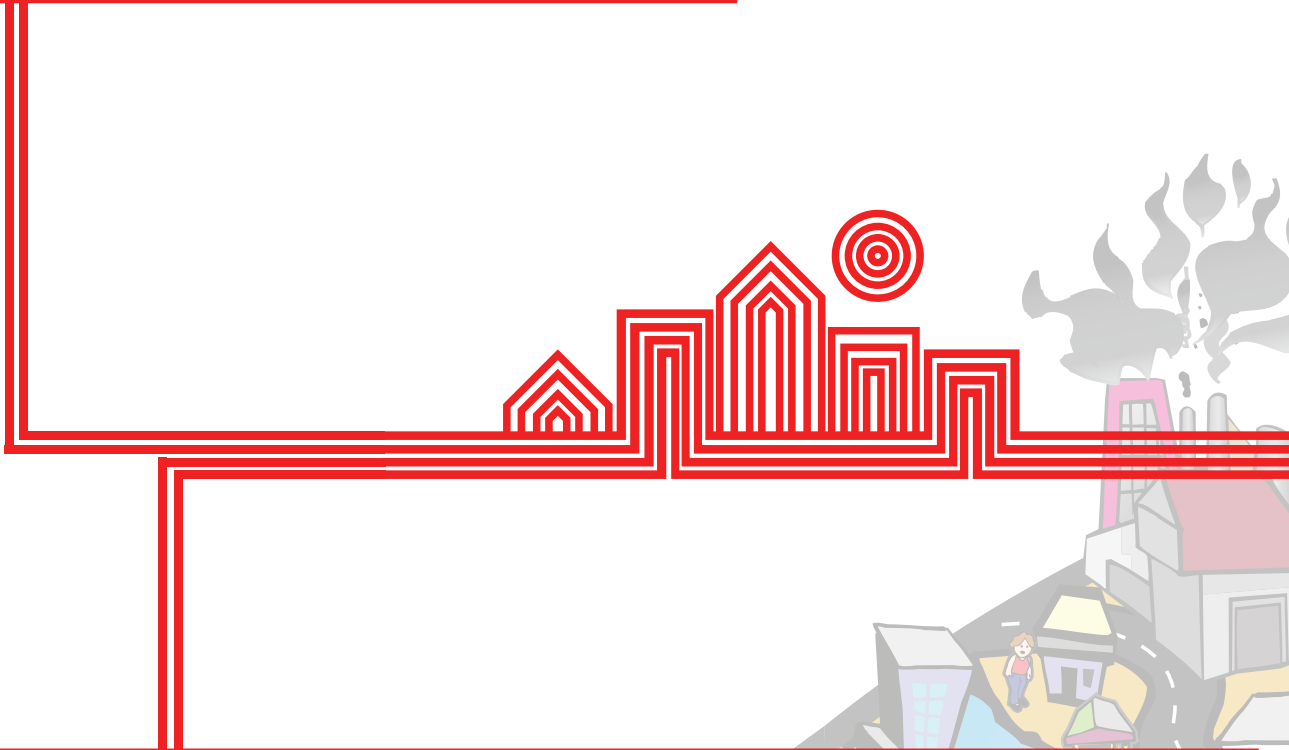


# Risk in Urban Contexts

*Conceptual Framework*







***One of the priorities for the International Federation of the Red Cross and Red Crescent Societies (IFRC) established in the 2020 Strategy is to strengthen community resilience as a means to reduce deaths and other effects that disasters have on people. This priority is shared amongst many other actors dedicated to humanitarian assistance and to development cooperation.***

A contribution of the International Federation of the Red Cross and Red Crescent Societies to the conceptual debate to understand disaster risk in urban areas

.....  
*“...in search of solutions  
to reduce risk and  
increase resilience in  
urban communities...”*  
.....

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**The content of this document does not necessarily reflect the opinion**



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## Methodological aspects of the study

This document is the result of the inventory, systematisation, analysis and conceptual debate on the initial notion of urban risk. The attention of specialised organisations, experts, academicians and persons working daily on risk management and disaster preparedness has shifted to a steadily growing phenomenon, which is the concentrated impact of disasters in communities and urban contexts, in addition to unbalanced processes in the urban/rural relationship, especially in Latin America and the Caribbean.

The work process began with a basic question: What is urban risk and why is it necessary to differentiate this type of risk from risk in general? The initial step taken to answer this question was to prepare the corresponding inventory, systematisation and scientific and technical information. This first step seeks to clarify current knowledge and present a series of concepts and terms, widely used but often misunderstood, in a systematic presentation.

The second aspect of this study has to do with the Red Cross profile and, thus, with the starting point in seeking to understand 'urban risk' and to identify specific approaches that will become the foundation in the development of strategies, methodologies and action tools. Urban community and urban culture have been considered starting points since the likelihood of humanitarian organisations creating successful actions is higher than creating public policy, standards or prospective risk management.

The third methodological element is scale of analysis. This study is part of the DIPECHO VII Action Plan from the European Commission Humanitarian Aid Office (ECHO) and is intended to contribute to the Central American Policy on Integrated Risk Management of the Central American Integration System in charge of CEPREDENAC. Thus, even though the analysis looks at general categories such as urban, rural, city and risk, its regional scope also guides the analysis process. In particular, experiences in a regional context are systematised as established by PCGIR: small cross-border cities that meet the criteria of homologous and homogenous areas as established in the policy.

As previously mentioned, based upon a prior document which established common working knowledge, we proceeded to create four processes for discussion, debate and conceptual and terminological understanding:

1. Discussion meeting, following the criteria of expert consultation, in which



international experts on the topic participated. Attendees included Elizabeth Mansilla, Professor at the Universidad Autónoma de México; Pascal Girot, Executive Director Coordinator of the International Union for Conservation of Nature; Alonso Brenes, researcher and consultant from the Latin American Faculty of Social Sciences (FLACSO); David Smith, former Executive Secretary of CEPREDENAC and Director of the Risk Management Program at the Universidad Nacional of Costa Rica; and the team from the IFRC. In addition to this initial debate process with experts, a discussion session was also held with participants from National Societies from Central America, the Caribbean, Mexico and Colombia.

2. A series of interviews and field visits, which required case systematisation in Honduras, Guatemala and the Costa Rica-Panama border and their relationship to risk reduction in different urban scenarios produced by national Red Cross agencies. Cases were presented in separate documents. In preparation, the aforementioned countries were visited to interview key informants and collect documents, which were then reviewed and interpreted. As mentioned, the corresponding report was submitted.

3. Discussion and debate workshop organised in Port-au-Prince, Haiti. Since the most shocking urban disaster in recent history took place in Haiti, and because a series of work experiences in urban communities are taking place in the country, the discussion was transferred to this context. International experts attended, as well as representatives from different agencies of the IFRC in Latin America and the Caribbean, representatives from the United Nations Development Programme (UNDP), World Bank and United Nations International Strategy for Disaster Reduction (UNISDR).

4. An open virtual forum in the DesAprender platform, where numerous people participated from different institutions and organisations working directly on risk and disaster topics. The forum was organised to address three topics: conceptual, methodological and practical application.

Lastly, the process was integrated by a team of external consultants and by those responsible for the project from the IFRC. To complement the process, another document was prepared, which included strategic guidelines, methodological criteria and practical recommendations to better develop actions in urban contexts.



## Introduction and study context

Latin America is the region with the highest rate of urban growth for developing countries. For decades, it has been a predominantly rural landscape with economies focused on agricultural and agro-industrial production. However, it has now become a landscape for accelerated urbanisation, undergoing a fundamental shift in economic and social activities, in production flows and in downtown and peripheral relations.

Simultaneous to urban growth and accelerated densification, it has also experienced an increase in urban population vulnerability, especially due to irregular settlement patterns, limited access to land ownership and the socioeconomic conditions that new urban settlers bring. This has resulted in a significant increase in disaster situations, characterised by new threat patterns (primarily socio-natural and industrial) and by complex community characteristics originating from a 'new urban culture'.

Cities are the place where decision and direction centres are established for modern societies. Globalisation is, without a doubt, a phenomenon not only forged in, but also directed from, dominant urban centres. All of the above has created extremely fragile and risk-laden urban centres which, in turn, transfer said conditions to other ecosystems directly or indirectly. This situation has direct implications on how risk is defined, especially in Latin American societies, and determines to what extent risk reduction is feasible through public policy and local or community initiatives.

One of the priorities for the IFRC established in the 2020 Strategy is to strengthen community resilience as a means to reduce death and other effects caused by disasters. The IFRC, as well as many other humanitarian aid and development cooperation entities, is implementing actions aimed specifically at urban contexts. However, practice has shown that urban culture, and more precisely the urban community, demands specific approaches which oftentimes do not correspond to methodologies and tools that have proven efficient in an urban or semi-urban context.

For this reason, this report, prepared with the support of ECHO, is intended to contribute to the understanding of what is increasingly being called 'urban risk'. It is a conceptual and theoretical perspective on the topic, which does not attempt to immediately develop methodological scenarios or urban risk procedures to be applied to certain environments. During a later stage, the IFRC will continue to further expand upon this study to establish a specific methodological design.





## Conceptual basis

### *Urban and rural: Basic considerations for an indivisible relationship*

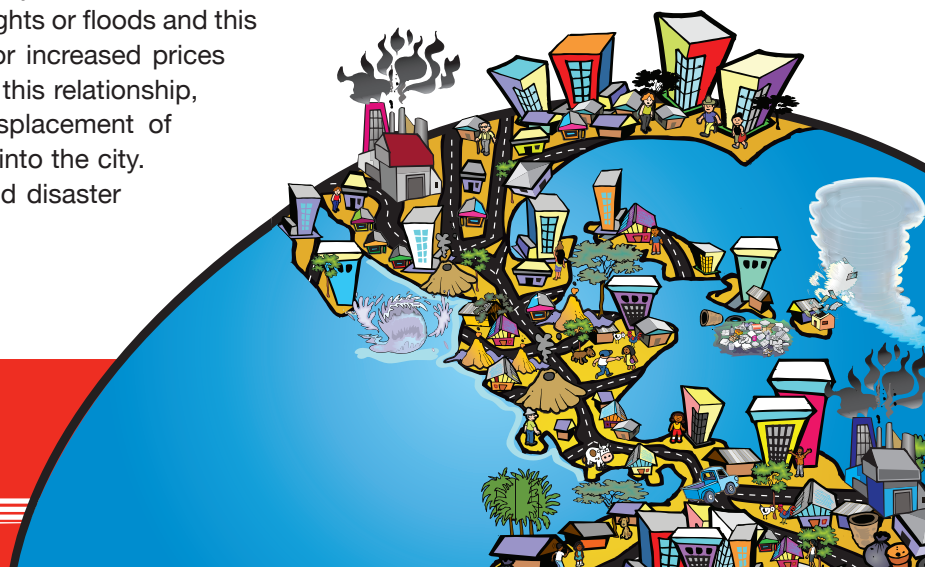
Before expanding further on the notion of ‘urban risk’ to examine its theoretical and conceptual soundness as grounds for establishing strategies and specific actions, it is important to note that this paper’s topic of interest, due to the scale of humanitarian agencies’ actions, is risk in urban contexts, with special regards to urban communities, including their nuances, differences and commonalities. It is also important to remember that many authors have mentioned that urban interacts with rural in the urban geographical context and, in this process, both extremes are modified and the city itself is diluted in the territory (Folch, 2003). Thus, it is necessary to begin with several considerations on this urban-rural dynamic.

There is a close link between urban and rural, although it must be noted that the relationship is not symmetrical. This paper affirms that the urban pole is dominant and it is the one that eventually determines the direction of the correlation between these two scenarios in the geographical context.

Cities are not just dominant poles in the production of services, technology and industrial products, but are also the place where political and economic decision centres in modern societies can be found. Globalisation, among other things, is an urban phenomenon being controlled from the cities. These considerations, beyond the need of a precise theory, have a direct impact on the way risk is construed and, therefore, on the specific possibilities of reducing it.

However, regardless of the asymmetry between these contexts, a group of interactions exists that implies changes in both scenarios. Technological innovation and urban fads also impact the rural world. Decisions made in the city, the centre of power, also affect the field. Economic policies can energise or depress agricultural activities, and such decisions are often made in the city.

However, the rural world is where the food that the cities eat is grown. The field is also a factory of water and oxygen, and a quarry where raw materials are extracted. Crops are lost with prolonged draughts or floods and this will be noticeable in the cities as a scarcity of, or increased prices for, agricultural produce. An important element in this relationship, especially in Central America, has been the displacement of persons from the field or migration from the field into the city. Historically, this has been a detonator for risk and disaster



situations since many migrate and are unable to find opportunities to make a living or a place to reside, oftentimes settling in insecure areas such as hillsides, river banks or in places prone to flooding.



**Table 1: Urban-rural differences**

Indicator	Urban	Rural
Population	Dense Concentrated Higher literacy levels More workforce specialisation	Disperse Lower literacy levels Less workforce specialisation
Services: Commerce, health, education, banking, liberal professionals (physicians, lawyers)	Concentrated Dense Diverse	Few Disperse In some cases, of inferior quality
Vital lines: Electricity grid, aqueducts, communication, gas pipelines, fuel storage systems, bridges, road network, others	High density	Low density
Disabled-friendly access in the territory	In some cities, initiatives exist to provide disabled-friendly conditions	Topic is not even discussed
Cost of land	High	Low
Power	Place where public and corporate authorities are located and where decisions affecting the rest of the territory are made	Local governments, almost always in the case of Central America, have limited resources and governance in the territory is low
Environment	Artificial predominates natural	Ecosystems in rural areas have been modified by humans; however, the predominance of artificial over natural does not exist to the extent that it does in cities.



The urban and rural worlds are distinct, but connected and interdependent since what happens in one affects the other. Social construction of risk takes place not only because of what happens in the immediate location where it is visible, but also because of what occurs or is done in potentially distant places, though connected by multiple links.

Ramón Folch (2003) introduces the 'paraurban' concept in reference to the diffuse space between the city and the field and the confusion of characteristics that oftentimes causes a rural context to be considered as urban and vice versa.

Three different typologies are created for these contexts. It is useful to understand the complex urban contexts where one is attempting to work:

- **Periurban context:** Considered an incipient, urban, slightly structured space located on the periphery of the city.
- **Rururban context:** In fully rural contexts, these are considered elements fully urban in origin or typology.
- **Vorurban context:** A marginal space, originally rural which 'agonises' on the brink of urban and rural. It is possible to see rural 'islands' in the middle of all the urban structure in large cities.

## What is city and what is urban?

Until recently, the world was primarily rural, even in industrialised countries like the United States, Japan and Europe. Throughout the 20th century a series of changes in transportation, production, organisation, as well as migration, accelerated in urban centres. As a result, the role of cities in the economy, politics and culture was strengthened. Simultaneously, cities and urban centres underwent a distinct quantitative growth. Urban centres in the 20th century quickly became places where demographics outweighed everything else. By the end of the 20th century and the beginning of the 21st century, a considerable number of people were living in cities (See Annex 1).

During the 20th century, the economic and political roles of cities as centres of leadership (political and financial), production, distribution, scientific innovation, technology and consumption consolidate. These grew and a new name was given to large cities: mega-cities. Urban spaces, such as New York or Los Angeles at first, followed by others such as Tokyo or London, became population centres possessing



unprecedented characteristics. In Latin America, cities such as Mexico City, Sao Paulo, Rio de Janeiro or Buenos Aires also became mega cities surrounded by an underdeveloped environment. These Latin American cities grew in a disorderly fashion and did not possess the services necessary for its population, therefore becoming hubs of vulnerability and risk.

## Urban characteristics

Urban is a dynamic context in social relationships of production, distribution and consumption. This space corresponds to a technical, social and territorial division of labour. The territorial division of labour is established with respect to other urban spaces of varying hierarchy, or when faced with rural contexts where urban space is dominant. Population concentration and density, construction of vital lines and feasibility networks are among its main distinctive traits.

This is a space with different flows of population, transportation, services and commerce. Its socioeconomic development process, along with the material conditions on which it rests (buildings, vital lines, roads) and the diversity of socio-natural and anthropic threats creates, especially in large cities, intensive risk conditions.

Similarly, branches of government are located in the cities, as well as centres where business decisions are made. In these places, especially in the major metropolises of the world, decisions are made that affect the entire planet. The principal development styles and schools of thought have begun in the cities, and from there spread throughout the world. Oftentimes these decisions regarding development politics, investments, commerce or conflicts move to, or create risk within, other spaces that possess a dependent relationship with the dominant urban centre.

Cities are also places of unrestricted consumption, and in some cases, opulence. This results in the production of different residues that are not easily disposable, either because it is unknown how to process them or because the city does not possess the necessary conditions to discard them properly without risk of contamination. Also, according to the World Bank, cities are the primary producers of greenhouse gases.



**Table 2: Urban characteristics**

What characterises urban contexts?
■ Social relations centred on the production of goods and services, distribution and consumption
■ Population density
■ Infrastructure density
■ Decision making (capital cities, municipalities and local governments)
■ Urban culture
■ In developing countries, generally: Road chaos Aggressive community relationships Different types of criminal activities

*A city is a compact population structure, larger than a town, with a community that develops an urban life.*

## Urban structures

The urban world (as a physical space) possesses a structure in which distinct parts interact through the movement of people, merchandise and information. As a result of the aforementioned, and of economic processes on both a local and global scale (Baires, 2009), the urban concept (territory, population, culture) is modified, leading to a change in roles and hierarchies.

Cities are the basis of the urban fabric. A city is a compact population structure, larger than a town, with a community that develops an urban life. Cities differ in location, specialisation, structure and population. Different roles are carried out, where some are specific to a certain geographic division of labour. Furthermore, some cities are known for their geographic location, such as Hillside or Riverside City (Monkhouse, 1978). For this study, when referring to an urban space, we may be referring to one segment of the city, like a borough, industrial zone, or shopping centre, and not to the city as a whole.

Experts on the matter and institutions within the countries disagree on the criteria to define an inhabited place as a city.

The following table is intended to illustrate the different types of human settlements, including cities and hierarchies:



**Table 3: Hierarchical organization of human settlements by population size**

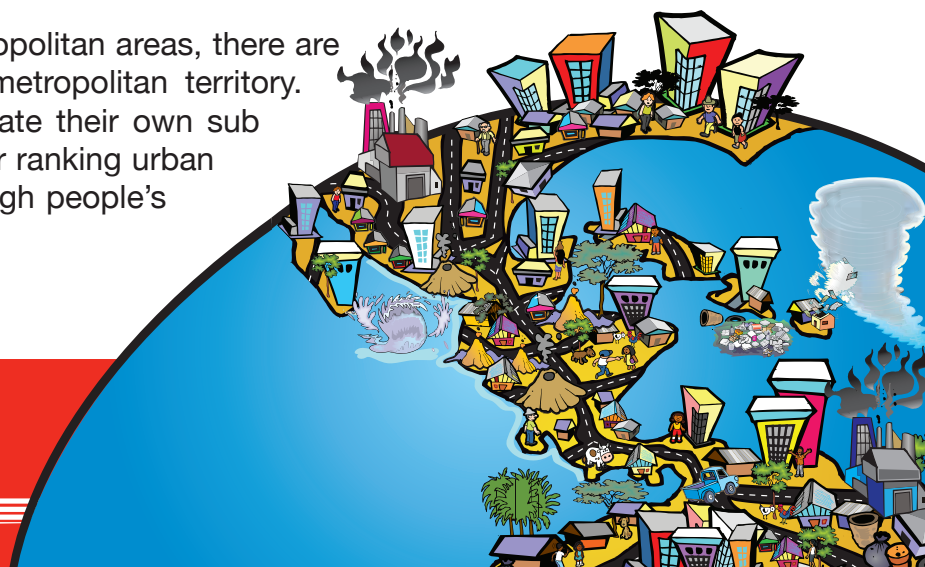
Denomination	Inhabitants
Hamlet	Up to 150
Village	150-1.000
Town	1.000-2.500
Small City	2.500-25.000
Medium City	25.000-100.000
Large City	100.000-800.000
Metropolis	More than 800.000
Mega-City	More than 5.000.000

Source: (Pujadas & Font, 1998)

Urban development leads to the creation of structures that goes beyond individual cities. Instead, it has to do with metropolitan areas. A metropolitan area is an urban zone with no building continuity, although it maintains a strong interrelation with other urban centres. Metropolitan areas can also be interpreted as a conurbation process.

Metropolitan areas can have an urban centre known as a metropolis, which is a city (compact urban space) that exists within the metropolitan zone. The term metropolis is used to distinguish the central nucleus and engine of a metropolitan area, as well as to differentiate a large city whose surroundings have not yet become a metropolitan-like spatial structure. In physical terms, the metropolitan concept is expressed as a compact urban continuity where the presence of buildings is uninterrupted.

As part of the structural diversity of metropolitan areas, there are urban nucleuses that grow inside the metropolitan territory. These are secondary centres that generate their own sub metropolitan centres, which include lower ranking urban nucleuses. All of this is interrelated through people's daily commute for employment.



**Table 4: City and metropolis**

<b>City</b>	■ A community that develops an urban life style
<b>Metropolis</b>	■ Central nucleus or driver of the metropolitan area ■ Urban zone with building continuity
<b>Metropolitan Area</b>	■ Urban zone with no building continuity

All metropolitan areas possess a transportation network (of varying quality) that should guarantee the interrelatedness and flow (of people, merchandise, services) is able to take place from one area to another. Road networks can be radial shaped, showing how expansion began from a centre, where concentric roads link secondary centres to the central nucleus. Some metropolitan areas possess concentric road structures that guarantee interconnection between secondary metropolitan areas without having to go through the nucleus.





## Considerations of a city

Cities have hierarchies that are determined by their international, regional, national and local roles. It is not just a matter of size, but also of city importance with regards to administration, political, financial and economic terms, be it on a national or international level.

A few global cities exist worldwide, such as New York, Tokyo, London and Hong Kong, to name a few. Latin America has regionally important cities, such as Sao Paulo, Rio de Janeiro, Buenos Aires and Mexico City. These cities have a financial, economic and political impact that goes beyond their immediate surroundings. Decisions that affect the world are made in these centres (Massey, 2008; SICA, 2009; Sagre, 1976; Torrico Canavir, 2008; Van Oss, 1981; Van Lidth de Jeude & Schütte, 2010). It is here where negotiations are made to determine prices for oil, raw materials, food and where the dominant economic policies will be implemented by international organisations and corporations. From these metropolitan centres, large corporations define the impact of policies for production, distribution and investment.

Undoubtedly, provisions made in these cities become risk-causing factors in Latin America, known in risk theory as 'root causes' (Wisner, Blaikie, Cannon, & Davis, 2004). Therefore, it is clear that the causal factors that lead to vulnerability and risk can be found very far from the places where they materialize.

The principal Latin American cities possess a dependent relationship with these worldwide metropolitan centres due to business, geopolitics and power schemes built from these global cities. While decisions and actions made in large metropolitan centres have strong implications for Latin American cities, what ultimately happens in the latter does not have the same effect on global metropolitan centres (Baires, 2009). It is an international division of labour that assigns administrative, economic, financial, political and cultural roles to our cities, all of which are linked to global economic and financial logic.

As for the primary Central American cities, they each exercise authority (administrative, political, financial and cultural) in their corresponding country and over a group of intermediate or smaller cities. In this structure, intermediate cities have their own political-administrative and/or economic functions, and other smaller cities are linked to them with varying intensity. Intermediate cities are where people carry out administrative, business or shopping activities for certain

***In small cities that have a farming background we find, in the words of Wilches-Chaux (1993), shared feelings of belonging and purpose. Or: community.***



goods or services that cannot be found in their smaller cities.

Smaller cities have a smaller population, fewer services and less commercial activity. Their surroundings are usually rural and used for agriculture, be it for subsistence, small grower or entrepreneurial production. In some cases, agro-industrial or tourist sites exist that target foreign markets but maintain no links with their social-economic context, although some jobs are created for the local population. Most small cities experience high risk levels and, in most cases, have a very subordinate position in the nation as a whole. This is manifested in reduced public presence with little or no investment to energise the economy. In the case of local governments with meagre income, they rely on decisions usually made in metropolitan centres.

The population in these small cities is mostly farmers. In some cases, people have a closer link to their surrounding, which facilitates a greater sense of belonging. It does not mean, however, that in smaller and more familiar places we will automatically find, in the words of Wilches-Chaux (1993), shared feelings of belonging and purpose. Or: community.

This is fundamental given that an urban agglomeration, such as a neighbourhood or street, that does not possess a shared feeling of belonging and purpose, could be a place that the organization of the population (a basic requisite for developing concrete actions to reduce risk and face disaster situations) would come face-to-face with obstacles.

## **Socio-cultural dimension: Global and urban community**

Culture is defined by Merriam-Webster's dictionary as: the set of shared attitudes, values, goals and practices that characterizes an institution or organization

Merriam-Webster provides a general meaning. However, is there such thing as urban culture? In practice, urban and human culture can be addressed as one, whereas urban space must be regarded separately, since it is neither socially nor culturally homogenous. Therefore, social belonging, access or not to certain educational, economic and labour conditions will determine the cultural mindset of a person or social group.



But, so-called globalisation has imposed a lifestyle and perception that permeates all social groups and classes, producing a homogenizing effect. The urban context is imposed as a dominant development concept (Baires, 2009). The urban world is a crowded space, oriented towards services, commerce, consumption, fashion, technology and cultural patterns.

As such, a relevant phenomenon in modern societies is the creation of a socio-cultural situation in which the common citizen is absent as an individual, i.e. as a person consciously involved in its problems to create a solution. It is a city without citizens. As previously stated (Wilches-Chaux, 1993), the result of this is a configuration for neighbourhoods or human conglomerates in which there are no shared feelings of belonging and purpose. These types of social existence are based on individualistic cohabitation styles that do not favour the creation of links between citizens or society. The economic transformation processes that have arisen in the last decades have not included all territories and populations equally and these have fostered a process of progressive disarticulation in the community and social ways of cohabitation (Baires, 2009).

The urban context fosters multiple community identities manifested in local geographic spaces. Multiple groups exist that create a symbolic identity, such as religion, gender, age, political views and employment status, which leads to multidimensional identities (Baires, 2009). All these different identities are present in a single community and are part of its social and cultural identity.

On the other hand, a globalised culture systematically fosters consumerism, individualism and hedonism through mass media. All of these values that correspond to a commercial society are systematically taught to a vulnerable population. These factors shape a passive attitude, where one is apathetic to the environment, the community and other fundamental issues in the surroundings.

This passive attitude is usually an indirect result of the spread of mass culture and social relationships upon which a city without citizens is founded. In other words, a socio-cultural environment where the population has rejected being part of the solution to its problems and prefers others solve them, be it the political party, municipality, a very small housing complex, neighbours board or the central government institution.

In spite of the above, neighbourhoods and cities still have and manifest a culture founded on solidarity, which results from a deep human experience of solidarity, cooperation, construction of shared feelings of belonging and purpose. These help people present a common front to overcome vulnerabilities and create a safe social and environmental context for human cohabitation.



**Table 5: Urban culture**

<b>Characteristics of urban culture</b>
■ Globalisation (economy, fashion, industrialisation, etc.)
■ Urbanisation
■ Individualism
■ Consumerism
■ Increased technology

## Social aspects in Central American urban contexts

One of the characteristics of Central American urban contexts is the composition of the population living in informal conditions with no stable employment and doing what they can to make a living. Much of this population lives in impoverished neighbourhoods, usually characterised as being highly vulnerable. These are excluded, spatially segregated populations that possess extremely high rates of violence in Latin America and the world.

A sense of insecurity has invaded urban zones, where cities are ranked according to safe and unsafe zones. People in the cities have a generalised sense of fear they try to dominate by **“identifying individuals or zones responsible for all violence. These are labeled as the only generators of urban violence. As a result, invisible imaginary frontiers appear: red and dangerous zones that brand and divide territories”** (Martel 2006a; quoted by Baires, 2009:52).



In urban marginal or segregated contexts there is, in many cases, a motley mix of social practices bordering on illegality or simply disregarding the law in response to the needs of the population living on the verge of survival. Drug trafficking, prostitution and theft are amongst a multitude of occupations and small-scale economic activities carried out to earn a livelihood amidst profound needs and deprivation. This is what Lavell (2004) calls daily risk.

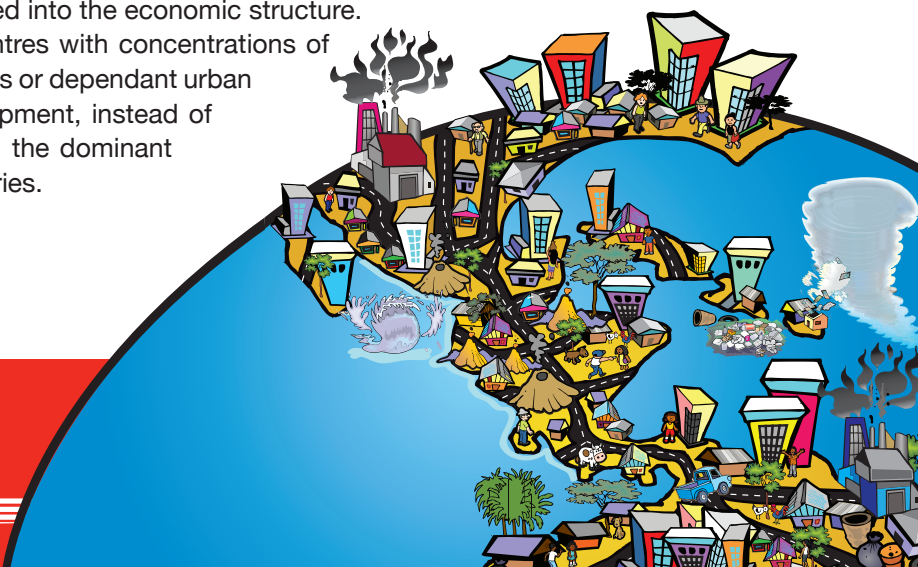
This daily risk characterising Central American urban contexts is the main threat faced by communities and entities seeking to reduce risk and promote local development.

The development of urbanisation processes in Central America began as being highly dependent on European metropolitan centres during colonization. Throughout the centuries, urban development was characterized by the growth of political-administrative centers established during the initial decades of colonial dominance. Today, many of these urban spaces are important cities in Central America: Suchitepéquez, Escuintla, Sacatepéquez, Verapaz, Chiquimula, Totonicapán, Quezaltenango, Sololá, Chimaltenango, Sonsonate, San Salvador, Tegucigalpa, Matagalpa and Realejo. Administrative political activities, trade and some artisan activities became concentrated in these cities, especially within the colony and much of the republic. Cities such as Managua, San Jose, San Salvador, Guatemala City and Tegucigalpa brought together trade, services and industry while agricultural activities remained segregated in the rural periphery and concentrated on large properties.

During the 1970s, agricultural mechanisation led to the expulsion of the population from the economic structure, resulting in migration to the city. However, cities did not possess the proper economic conditions that would have allowed them to absorb this population.

Therefore, a series of territorial contradictions began, expressed in the urban context as city dominance, industrial centers for advanced technologies located in stagnant peripheral regions that had no bearing on their development, ecological deterioration in new areas of agricultural and industrial exploitation, poor integration within each country regarding their respective regions and economic structures, and constitution of a population that is not integrated into the economic structure. A great division began to form between urban centres with concentrations of resources and the population and its rural peripheries or dependant urban areas. Differences in resources, power and development, instead of decreasing, became consolidated in time between the dominant metropolitan areas and the urban and rural peripheries.

***The development of urbanisation processes in Central America began as being highly dependent on European metropolitan centres during colonization.***



Beginning in the 1980s, economic liberalization processes came to exist that led to a modification in Central American economies as well as the region's city structure. Lungo (1998) summarises the most important changes in the Central American cities in the late 1990s as follows:

- *Increased outsourcing of the economy where financial sector is clearly dominant.*
- *Increased informal sector and growing complexity of its links with the formal economy.*
- *Increased inequality in income distribution, although urban poverty decreased slightly.*
- *New location patterns for manufacturing, commercial and service activities.*
- *Changes in relationships with other cities in the national urban network and major cities in other Central American countries.*
- *Emergence of new urban economic stakeholders.*
- *Cities increasingly focused on consumption.*





Furthermore:

*...these continue to be cities characterised by informal economies, poverty and precarious infrastructure, and obsolete urban management* (Lungo & Polése, 1998; Lavell, Local disaster risk reduction: lessons from the Andes, 2009; Mansilla, Riesgo y Ciudad, 2000; Maskrey, 1993).

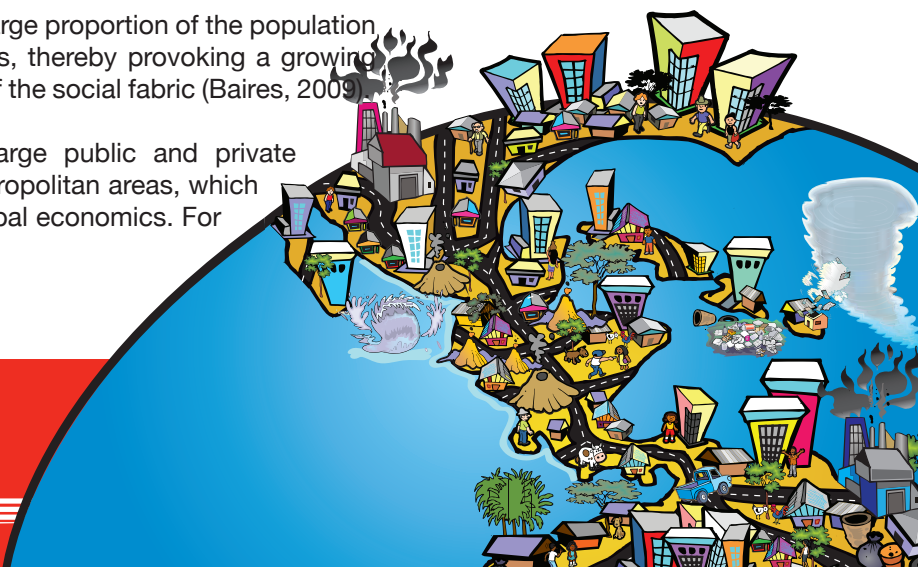
In the midst of the globalization and transnationalisation of Central American economies, a very important segment of micro- and small businesses exists that generates a significant amount of employment, mainly in the cities, but faces **“difficulties with funding and limited clarity on investment markets”** (Baires, 2009). In some countries (El Salvador, Guatemala and Nicaragua), these small and micro-enterprises are responsible for absorbing 80% of the economically active population within the urban area (Ibid). Urban employment dynamics depend on these economic factors (micro- and small enterprises) which, at the same time, do not have the public support for them to become a strategy for development. Furthermore, these business models do not have the financial and institutional support required to strengthen the sector and give it greater stability.

Global processes of capital accumulation have generated urban economies where new ways of production and services stand out, including the sale of transnational services (where the logistics sector, call centres and electronics manufacturing operations are the primary participants), the textile industry and the consolidation of the tourism sector (Baires, 2009). This, as already stated, has been accompanied by strong growth in informal sector work, including underemployment and informality, which are indicators of an increase in a region’s structural poverty.

The resulting development model did not allow a large proportion of the population to be included in the economy’s formal structures, thereby provoking a growing process of social exclusion and the deterioration of the social fabric (Baires, 2009).

In addition to the aforementioned, there are large public and private investments that have a significant impact on metropolitan areas, which have been made due to the connection to the global economics. For example:

*when the global economy involves local spaces through large investments, intense transformations arise with regards to the social, economic and cultural rights of these spaces*



**Table 6: Investment projects in Central American countries that impact metropolitan areas**

País	Type of investment
Honduras and El Salvador	Focused public investment in logistical infrastructure in the Port of Puerto Cortez (Honduras) and in the Port of La Unión (El Salvador.)
Costa Rica	Private and public investment in tourism and in establishing technological industries.
Nicaragua	Physical and labour investment and specialisation aimed at serving the textile industry.
Guatemala	Increased public investment in connectivity in a historically segregated territory (Northern zone) and in ensuring an internal and international flow of massive

Source: Baires, 2009: 41

The investment and impact on the territory produced as a result of globalization tend to concentrate themselves where conditions favor appreciation of capital as opposed to just anywhere (World Bank, 2009; Capel, 1975; Castells, 1974; Delgado Rodríguez, Essay on settlement in Central America, 1998; Delgado Rodríguez, The colonial world and geographical interpretations of Vasquez de Espinoza, 1998; Royal Spanish Academy of Language, 2011; IFRC, 2010). But, when the globalized economy involves local spaces by way of large investments, intense social, economic and cultural transformations take place (Baires, 2009). Also, certain territories lacking the appropriate characteristics for capital appreciation are not included in these economic dynamics, often causing social exclusion and spatial segregation.

These economic processes produce a population that, from the labor market's point of view, is dispensable. This generates a phenomenon known as social exclusion, which is manifested as physical segregation from the urban territory, in poor communities (precarious conditions, slums or dumps) that are highly vulnerable to recurring disasters.





## Urban risk or risk in urban contexts?

### *Building the concept of risk*

It is important to begin this section stating that the concepts of risk and disaster have evolved over the last decades. These concepts have been fundamental in the design of policies, structures, strategies and methodologies. Following is a brief summary of these approaches and concepts:

- **Magic, or Divine** Factor occurs when people give disasters a magical explanation or attribute it to divine will.
- **Naturalistic Perspective** considers disasters the result of Nature, which is generous and giving, but can behave as a destructive force at times.
- **Physicalism** originates from Natural Sciences and incorporates new elements such as exposure and physical vulnerability.
- **Social Construction of Risk** originated as a criticism of Physicalism and is based on Social Sciences. This risk perspective is conceived as a social concept where economics, institutionalism and socio-cultural environment are fundamental explanatory factors. It considers disasters as not occurring due to a natural threat but due to the convergence of a certain threat with a population that has constructed a particular social vulnerability. The interrelation between these variables (threat and vulnerability) gives way to disaster.



This document will use the last conceptual approach.



### **Manifestation of risk in urban and city contexts**

The urban system is a dynamic set of social relationships that involve production, distribution and consumption, which has generated, and settled into, an artificial environment made of buildings and vital lines. A fundamental trait is its high density of people, buildings and vital lines. Economic policies in Latin America have created an urban dynamic that deepens spatial and social imbalances internally and with other interconnected systems, which results in strong system imbalances and a process of increasing entropy. The more entropy in an artificial system, the more possibilities of constructing risk in urban spaces.

Imbalances in an urban system, contrary to what could happen in a natural ecosystem or one that is better defined by natural adjustments, as in the case of rural spaces, do not lead to an automatic adjustment that generates a new balance. Instead, it results in further entropy, which demands a guided social intervention to generate balance based on social, economic and environmental processes. These unbalances in the urban system are the basis for the generation of specific risk conditions, which are considerably different from those taking place in rural spaces (though we must always consider the unavoidable urban-rural relationship, mentioned in No. 3).

Resilience<sup>1</sup> in urban systems depends upon the capabilities of the social system. It has to do with the possibility of being able to generate inclusive, planned development and a process to delegate spaces while considering risk prevention criteria. Contrary to what happens in rural contexts, urban resilience is the sole result of deliberate and agreed upon social action.

It is important to reiterate that the urban system is fundamentally artificial and possesses escalating needs for energy and natural resources, depending on energy transmission from other ecosystems. However, these transfer processes of energy and resources are not based on sustainable criteria or practices, but instead on an intensive exploitation of other ecosystems that prevents auto-recovery. This exploitation results in progressive entropy that tends to involve other ecosystems, whose deterioration is a global risk factor (a permanent trend toward generalised unbalance). Therefore, we can state that the urban system has the negative capability of causing a geographic transfer of entropy, and of risk, to other subordinate urban systems or rural spaces.

Cities possess large concentrations of people, and in order to fulfill their needs

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<sup>1</sup> *The capacity of a system, community or society exposed to a threat to resist, absorb, adapt and recover from the effects in a timely and effective manner, including the preservation and restoration of their basic structures and functions (UNISDR Terminology 2009).*





and demands, interconnected systems have been developed that include road networks, transportation of fuel, water, electricity, etc. For this same reason, an event such as a flood, earthquake or landslide can have multiple and linked impacts, increasing damage exponentially. An example is an earthquake that destroys roads and bridges, but also damages the electrical system and public drinking water system. A landslide can destroy a power plant or an electricity plant and with it, through a causal link, impact other services such as water, telecommunications and fuel distribution, all of which rely on the electrical system to operate.

What differentiates risk in urban spaces is that it is a phenomenon that occurs in the context of a set of social relationships involving production, distribution and consumption, which are based on artificial, dynamic, integrated and dense scenarios. Cities possess a high volume of buildings, people and vital lines, which are interrelated through multiple links. Therefore, the process of constructing risk is carried out at different intensities, resulting in a risk unique to urban areas.

Cities or urban centres are places where public power is located, as well as being the headquarters for large companies, corporations and banks. Cities are centres of leadership for society as a whole. When it comes to major cities, if risk turns into disaster, the effects extend beyond its own territory given its central character in the direction and coordination of economic, national and international functions.



## Urban risk and disaster in Latin America

In the document *Urban risk and public policy in Latin America: The irregularity and access to land* (Mansilla, 2011), the Desinventar database consists of over 67.000 events that occurred between 1980 and 2009 in eight countries, as shown in the following table:

**Table 7: Number of events occurred**

Country	Period	Total
Bolivia	1980-2009	2.159
Colombia	1980-2009	18.339
Costa Rica	1970-2009	10.184
Ecuador	1980-2009	3.728
El Salvador	1980-2009	2.746
Guatemala	1980-2009	3.002
Mexico	1980-2009	16.604
Peru	1980-2009	10.575
	Total	67.337

Table: Mansilla (2011) with data from Desinventar.

From this data on disasters, the author points out certain aspects that suggest that the frequency of these types of hazards is on the rise:

- More than half of the events occurred (53.3%) between 2000 and 2009.
- Of these, 86% occurred in urban or transition zones.
- In countries such as Costa Rica, Guatemala and Peru, percentages increase to more than 90%, and to 96% for Costa Rica.



According to the author, risk patterns found in urban areas in Latin America tend to point to floods as occurring most often. The following chart shows a comparison in event intensity:

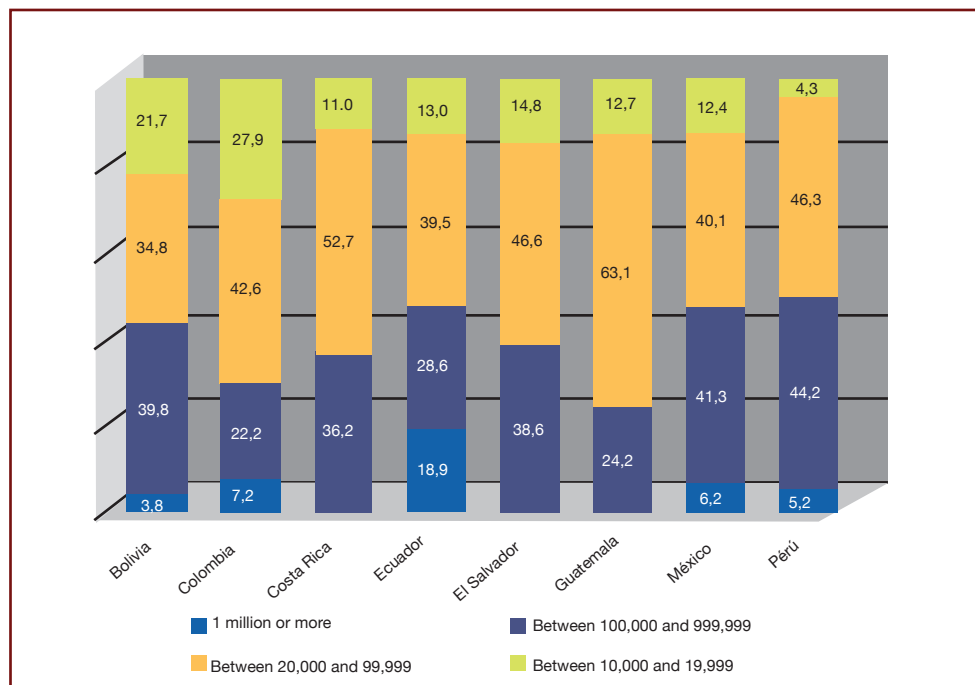
Country	Event	Alluvions	Mudslides	Freezes and Cold Fronts	Floods	Rains	Draughts	Earthquakes	Strong Winds	Others
Bolivia			14,3		59	3,7				23
Colombia			25,4		47,1				9,5	18
Costa Rica			25,5		59,3				6,4	8,8
Ecuador			26,5		38,0	14,1				21,4
El Salvador			20,9		36,1			7,9		35,1
Guatemala			29,4		27,8	19,8				33
Mexico				10,4	33,1		8,5			48
Peru		14,3			24,4	15,3				46

Table: Mansilla (2011) with data from Desinventar.

This report sheds light upon the distribution of impact when compared to the size of the area where it occurs. Normally, it is thought that the increase in risk and disaster is proportional to the population size of the affected area.

However, Graph 1 shows that such a trend does not exist. On the contrary, urban spaces ranging from 20.000 to 100.000 inhabitants received the most impacts.



**Graph 1: Number of events by size of urban area**

Source: Prepared based on national Census and DesInventar

## Discussion on urban risk, comments and initial conclusions

The process implemented by the IFRC included several discussions on the conceptual and theoretical approach to urban risk in order to identify strategic lines, methodologies and tools.

The content of these discussions, based on the initial notes on urban risk presented in this document, have been organised as follows:

### **Concept of urban risk**

#### **1. Relevant characteristics**

In urban areas, risk takes on specific characteristics and cannot be viewed the same way as it is in rural contexts. The following characteristics can be identified as constituents of what until now has been referred to as 'urban risk':



**Population density:** Population density, more so than the size of urban spaces, has been considered a determining factor, as it concentrates vulnerabilities in confined spaces. This element is fundamental to understanding the alleged ‘intensive risk’ or ‘intensive disasters’ (UNISDR, 2009).

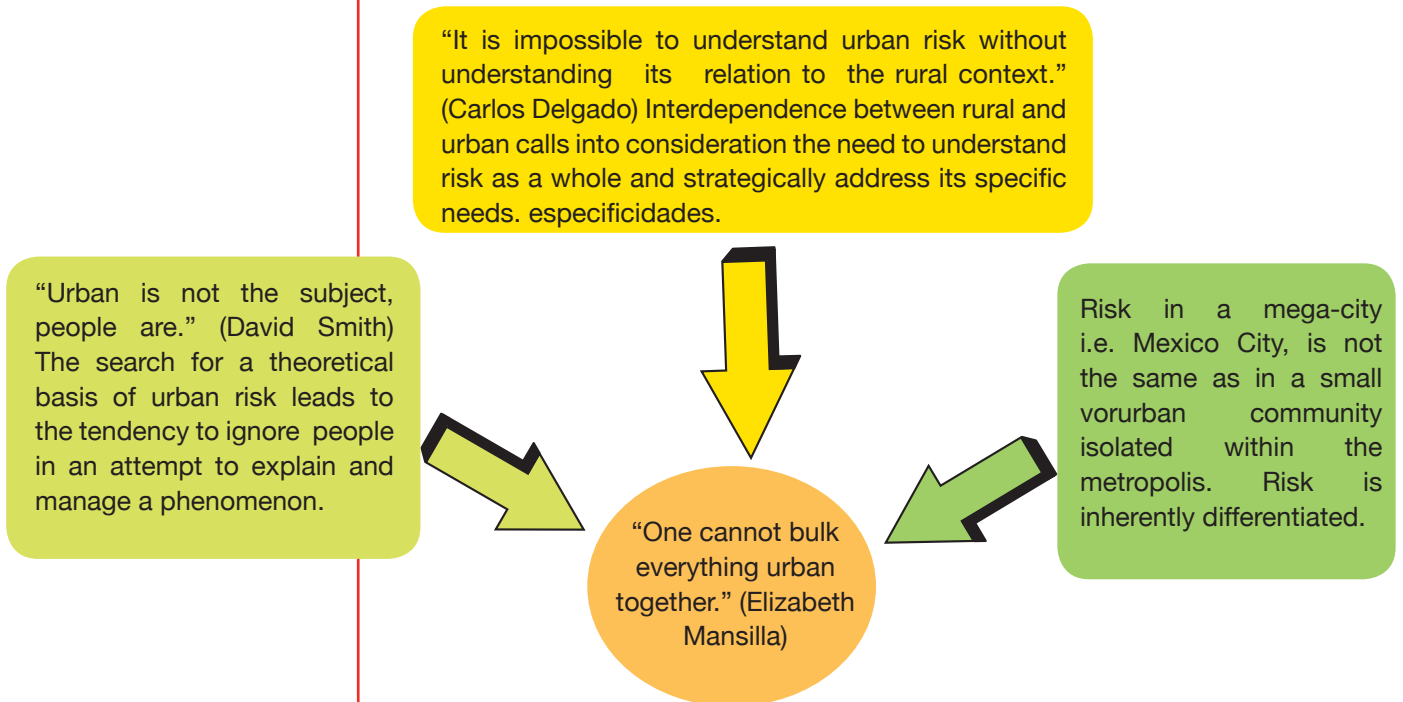
**Relations of domination and decision-making:** Cities are centres for decision making, where forms of domination are established, even between cities due to the existing relationship between the centre and peripheral areas. Ultimately, cities define specific forms of risk for subordinate urban contexts and rural contexts.

**Artificial ecosystem, not adapted naturally:** In rural spaces, especially in disperse rural spaces, local adaptation processes resort to natural ecosystem mechanisms. Urban spaces are an artificial construction in which natural adaptation processes are not critical. Vulnerability is built artificially and risk must then be reduced during the same processes whereby cities are formed.

**Character of communities and urban culture:** Authors such as Wilches-Chaux (1993) state that in Latin American urban contexts, shared feelings of belonging and purpose are not traits of urban communities due to the processes that take place during their creation. The nature of an urban community becomes a determining factor for urban risk because if it is considered an artificial ecosystem, and not naturally adapted, this sense of purpose becomes an indispensable condition for adaptation and risk reduction.

**Resilience conditioned by urban community conditions:** The aforementioned characteristics outline a fundamental feature of risk in urban spaces, which has to do with capabilities. The nature of urban communities and the ecosystemic needs for adaptation, such as voluntary and agreed action, manifest a complex relationship in risk reduction. There is generalised agreement on the fact that Latin American urban communities have low resilience capacities because their community dynamics, which lack bonding, common purpose and ownership, are generally not developed and instead increase the dimension of risk.





## 2. Relevant issues in the urban context risk study

One of the aspects that stood out from the onset was how important it is to differentiate risk, in specific and practical terms, as a whole.

Such questions initiated discussions on not just the meaning of relevance, but on several of its conceptual components as well. During the specialised discussions, the participants reached a consensus regarding the following elements<sup>2</sup>:

***It is unnecessary to distinguish 'urban risk':*** The concept of risk, especially from its social construction as previously mentioned, determines 'differentiation' as one of its main elements. Therefore, all geographic spaces have a specific dimension of risk, depending on the scale of analysis: risk

<sup>2</sup> It is important to mention that this 'consensus' or common vision was reached among experts participating in the discussions. It most definitely does not prevent others, including specialists, people from each sector or different scientific disciplines, from having a different opinion. These comments show, essentially, agreement of those interviewed.





in the city, risk in periurban zones, risk in ports, risk in highland zones and risk in the coasts, among others. The concept of risk in general is enough to understand the phenomenon and to implement specific management actions.

**Differentiation is relevant to establish policies and strategies:** Understanding risk in urban spaces becomes more relevant when selecting specific actions. National urban policies or strategies for specific urban zones require a focused risk assessment.

**It is more relevant to differentiate 'city' from 'urban spaces':** It can be more useful to determine characteristics for risk in cities than in urban spaces, in general. These terms are often confused (periurban – rururban). However, it is more common to see 'city disasters' and not so much 'urban disasters' as a general category

**Key concepts: Relevance of differentiation**

All 'urban risk' characteristics are contained in the definition of risk.	Risk in cities should be talked about, and more specifically, about disasters in cities.	It is more relevant to make differentiations for the development of policies and action policies.
Is it relevant to discuss urban risk?		

## Risk trends in urban contexts

One of the most discussed topics by all interviewees had to do with the visible trends for risk in urban spaces. The starting point of the study was the generalised perception that 'urban risk' is a growing trend.

The study showed, however, that aside from the notion or perception of urban risk, little had been done about its concept and specific characterisation. The following became a constant question: What are the ramifications of this concept when carried out in the practice? Several trends were analysed in an attempt to identify strategic paths and to clarify myths or mistaken perceptions regarding risk in urban spaces and its impact on disasters in cities.



### **1. Increase in 'city disasters' more than 'urban disasters':**

Most statistical data shows that disasters in cities are the result of accumulated intensive risk, as previously mentioned.

- **Increase of disasters in cities is clearly visible:** This increase is more difficult to detect in urban spaces, due to their complexity, and when the division with other spatial categories is not clear cut. Impacts on rural areas are oftentimes the result of risk generated by the urban-rural relationship. Perhaps an assessment showing increased risk in specific categories of the city will be more useful.

### **2. Risk and disaster trends in cities are manifested separately.**

- **Risk in capital cities:** These cities have specific risk characteristics linked to governability (as is visible in Port-au-Prince and Santiago, Chile) that need to be analysed as a whole, regardless of the size of the city. The complexity lies in the ability to maintain a functioning government that can respond to impacts. From the perspective of risk, the spatial juxtaposition of government, or of local governments where the capital city is located, and the central government that administers the rest of the territory is a specific aspect of differentiated risk.



■ **Increased risk in coastal cities:** During the discussion amongst experts, they agreed that risk is experiencing accelerated growth in coastal cities. Linked to variability aspects and climate change, as well as other considerations that lead to a higher density and greater vulnerabilities, this type of risk is considered one that must have specific prioritized approaches.

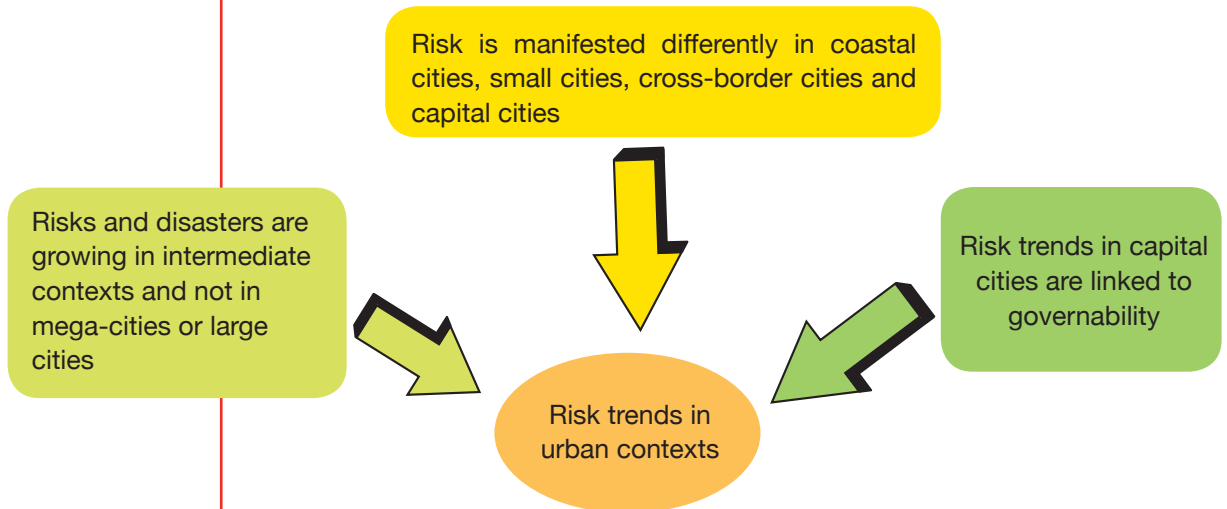
■ **Risk in cross-border cities:** The pilot project of the IFRC is aimed at these types of homologous urban contexts and analyses how proximity to a border, as well as the presence of two different states regulating or allowing intense migratory, commercial and social flow, creates risk conditions that are not seen in any other type of small city.

### 3. Trends for increased risk in urban contexts

■ **Increased risk is not in mega urban contexts, but in medium urban contexts:** *The Global Assessment Report on Disaster Risk Reduction* (2011) gives a series of data on the primary risk trends worldwide. One of the most relevant for this study is the statistical analysis on disaster impact in urban spaces. This analysis shows how the most significant increases in risk and disasters do not happen in the large (or mega) urban contexts, as is usually thought. Instead, increases are found in urban spaces from 20.000 to 50.000 inhabitants. The following graph (Mansilla, 2011) shows how impacts in urban spaces of over 1 million inhabitants are not the majority,

■ **Possibilities of generating and reinforcing resilience to increased risk:** The notion of increased risk in relation to city size has generated false expectations on the real possibilities of reducing risk in cities. Considering the direct relationship between risk and public policy, and the unlikely possibility of making a significant impact, especially when working from humanitarian organisations, it was considered unwise to try to develop urban risk reduction strategies. Instead, it would be more appropriate to continue working at the community level adjusting the methodologies. However, this trend shows how increased risk happens at a more manageable scale..



**Key concepts: Trends****Outline for a strategy**

Although the IFRC's DIPECHO Project has defined the development of strategic guidelines on urban risk, this study seeks to conclude itself with criteria that enable the identification of said guidelines, especially from the theoretical and conceptual exercises that have been done:

**1) Approach**

It is necessary to establish a clear general approach, but with specific strategic considerations for each intervention, considering the differentiated nature of risk. It demands:

a) Establish a typology of cities and urban spaces, and use it to develop specific strategic paths. Initially, the requirements are:

- i) Capital cities and metropolitan areas considered coastal cities should be given a high priority. The situation of urban metropolitan spaces needs further analysis in order to develop an approach for those where risk is growing quickly.
- ii) Port cities and urban zones, due to the significant trend they show in risk accumulation.
- iii) Urban zones with populations ranging from 2.000 to 100.000.



- b) Develop a neighbourhood approach more so than an individualistic approach. This is based on evidence that risk and disasters, regardless of city size, are local in scale.

## **2) Causality scenarios and impact scenarios**

Strategy should not be limited to a city approach. It must consider the close complementary relationship between urban and rural, and between different urban spaces. Focus should be based on the global comprehension of risk to avoid excessive specialisation, which reduces the possibility of comprehensive management.

## **3) Public policy and institutional approaches**

Although humanitarian stakeholders have limited impact on the development of policy or organisational structures, it is important to contribute through guiding criteria on behalf of urban communities at risk. The following are important considerations: línea, es importante considerar:

- a) Territorial zoning and building codes as regulatory and preventive mechanisms. Policies and territorial zoning instruments must give clear criteria on risk reduction and consider the risk as consolidated in order to apply corrective management measures. These actions must be linked to processes to develop urban community vision and community self-management capacities.
- b) Processes aimed at housing and human settlements have a high potential for contributing to risk reduction in growing urban communities and informal settlements.
- c) Create institutional approaches, plans and strategies for integrated and sectored intervention to work with risk in urban contexts in line with the aforementioned typology.



#### **4) Strengthening governance and governability**

The creation of strategic lines to strengthen governance, such as local government and grassroots organisations, is of utmost importance. To this end, the following must be considered:

- a) Creation of strategies, instruments and actions to improve the capacity of local government to integrate risk reduction into their planning processes. A process must be created to prioritise urban zones with a population 20.000 to 100.000 or those whose frequency of disaster impacts is increasing at a faster rate.
- b) Develop processes and instruments aimed at local risk management in urban contexts to facilitate dialogue and consensus among local government and grassroots organisations.

#### **5) Attention to the urban community**

The greatest strategic challenge is to create strategic lines, methodologies and mechanisms to address the urban community from their specific characteristics. Rather than simply adapting materials, it is very important to create material in a collaborative effort with the urban community itself. This means better understanding of its characteristics and knowing its cohesion conditions are different from those in rural contexts.

#### **6) Reverse risk construction processes at the local level**

With the participation of the central government, local government and community organizations, identify the primary generators of risk at the community level in urban spaces in order to establish processes to reduce underlying risk factors.



# Annex 1

## Evolution of economic change and its impact in cities

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## Evolution of economic change and its impact in cities

Economic and technological changes	Situation and evolution of cities
<p>1770 to 1830</p> <p>The emerging bourgeois world experiences strong economic and technological movements characterised by important changes and innovations: the appearance of steam engines, improved iron casting, increased industry mechanisation and changes in</p>	<p>Urban centres undergo rapid expansion in retail and wholesale trade. Cities flourish due to the expansion of factories and trade. This is where new systems of production and social relationships are constructed and take root, based on industry, free trade and commercial relationships. This in turn redefines cities, giving them a new luster. Labour migrates to cities due to a breakdown in feudal relations in the field. Cities themselves experience the change from a domestic economy to a manufacturing economy and, lastly, to a factory economy, which is the highest expression of the development of productive forces driven by capitalism.</p> <p>There is synergy between the industrial process and cities. Cities appeal to industry because they concentrate labour. Once industries recruit labour, urban growth accelerates. Urban spaces are dominated by industry.</p> <p>Technical rationality and the prevalence of profit rates blur the differences between cities. This is the base material, as well as having homogenising cultural implications.</p>





<p>1830 to 1890</p> <p>Railroad and steam are the dominant technologies. Mechanisation and factories continue to expand, and with them markets.</p>	<p>New urban centres emerge in industrialised countries and are connected through railroads and maritime transportation.</p> <p>Developments in transportation mean that space becomes relative.</p> <p>Transportation development results in increased industrial autonomy when acquiring raw material.</p> <p>Urban spaces become specialised labour centres and technology component concentrators. Other industrial sectors rely on them.</p>
<p>1890 to 1930</p> <p>Large department stores and specialised companies are created. Scientific and technological development gain relevance in universities. Middle management becomes the main trait of innovation.</p>	<p>Mega-cities appear, such as London and New York. The primary consumer markets are established in these cities, as well as banks and financial capital.</p> <p>World cities host large corporations that arise from capital concentration and centralisation processes.</p> <p>Cities with large store chains benefit from their growth, as well as from the growth of the entertainment and tourism sectors. The outsourcing sector and markets flourish in cities.</p> <p>The phenomenon of metropolitan development evolves. Activities that work without geographic continuity disseminate in this context.</p> <p>Some activities are concentrated in metropolitan centres, such as financial and industrial activities, but others are dispersed in geographical spaces, like housing or basic need services.</p>



1930 to 1980

Fordism and mass production consolidate. This was a time of mass production and mass consumption. In the capitalistic periphery, including Latin America, a process of dependant industrialisation and import substitution takes place.

Exchange of raw materials, capital and technology takes place between developed countries and the periphery.

During this period, there is also a fusion of traditional and electronic mechanisation. The robot, acceleration of technological change, office automation and extraordinary development in communication characterise this economic cycle.

Main world cities in industrialised countries become places of hyper-consumption, as well as places for research, financial services and information technology.

World cities become centres where multinationals interact, control and lead their activities in the rest of the world.

Due to the development and flexibility of air and land transportation, cities increase their power and influence on governments and companies.

Cities and its inherent opportunities make the industry-city relationship one where the city gains pre-eminence due to its complex relations: qualified labour, large concentrations of consumers, technology, considerable development in roads, concentration of services and finances, communication, etc.

In this period, cities play a determining role in the internationalisation of national economies. World cities become places where the current globalisation processes are configured.

Source: Mansilla (2000)



## Glossary of Terms

### **CITY**

Compact centre of population, larger than a town, with a community that develops an urban lifestyle; many carry out specialised activities, such as: market city, mining city, bridge city, fortress city, colonial city, fishing city, summertime city, etc. Another way of defining cities is by their location: hillside city, riverside city, estuary city.

### **CONURBATION**

Term originally coined by P. Geddes (1915) to denominate an urban area product of the coalescence of several cities or urban nucleus previously separated. The term has been defined with greater precision as an area with continuous buildings where there is no apparent division between the different cities that have united. However, each city is identifiable and conurbation is not a non-differentiated urban totality.

### **DEVELOPMENT**

It is the economic process in which a population meets all its basic needs and even generates enough resources to meet other complementary ones (education, tourism, etc.). Economic development is unequal by nature in its territory (developed, developing and underdeveloped countries) and in time.

### **ENTROPY**

Entropy refers to the degree of disorder in matter and degradation in energy. An example is fuel which when used is transformed into combustion gases that can no longer be used as fuels, thus losing its value as such. In the case of a social system, it can be said that all those factors causing disorder are entropy-causing agents. Road chaos, common to cities, is an entropy factor, as it brings disorder to the system.

### **GEOGRAPHIC SPACE / TERRITORY**

Geography usually refers to a geographic space more than just space, as this term used on its own is rather lax or vague. Used as 'geographic space' it is a synonym of territory, i.e. physical support to all human activities. It is, as a whole, the place where life takes place.

### **INTENSIVE RISK**

The risk associated with the exposure of large population concentrations of people and economic activities to intense hazard events which can lead to potentially catastrophic disaster impacts involving high mortality and asset loss.



***METROPOLIS***

The term metropolis is used to designate the central nucleus and driver of a metropolitan area; it is also used to describe a large city that has not generated a metropolitan-like spatial structure in its surroundings. In physical terms, metropolitan is expressed as urban continuity with no building discontinuity

***METROPOLITAN AREA***

A metropolitan area is an urban zone lacking building continuity, even if it has a strong interrelation with other urban nucleus. The concept of metropolitan area is similar to conurbation.

***PROSPECTIVE***

Set of analyses and assessments performed to explore or predict the future for a certain topic..

***REGION***

Land surface area differentiated by specific characteristics. Theoretical arguments used to identify and limit a region have been subject of much discussion. It includes regions with single characteristics or regions labeled as generic, specific, formal, functional, natural and nodal

***RESILIENCE***

The ability of a system, community or society exposed to hazards to recover from the effects of said hazard..

***RISK***

The likelihood of harmful consequences or expected losses (mortality, injury, damage to property or to livelihood, interruption of economic activities, environmental deterioration) resulting from interactions between natural or anthropogenic threats and vulnerability conditions.

***RURAL***

Areas dominated by open spaces, low building density, extensive use of soil (primary activities such as agriculture or cattle farming) and low population density.

***THREAT***

The latent danger associated to physical phenomena which can be natural, technological or caused by man, which manifests in a specific place and time having adverse effects on persons, assets, services and/or environment. Technically, it refers to the likelihood of a certain event occurring with certain intensity, in a specific site and during a certain period of time.



## **VULNERABILITY**

Conditions determined by physical, social, economic and environmental factors or processes that increase community susceptibility to the threat of a hazard.



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**Cruz Roja Finlandesa** 

 **Norwegian Red Cross**



 International Federation  
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*The International Federation of the Red Cross and Red Crescent Societies (IFRC) promotes the humanitarian activities of the National Societies in the favor of vulnerable persons.*

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