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## Is your city getting ready?

More than half of the world's population now lives in cities or urban centres. Urban settlements are the lifelines of society. They serve as nations' economic engines, they are centres of technology and innovation and they are living evidence of our cultural heritage. But cities can also become generators of new risks: failed infrastructure and services, environmental urban degradation, increasing informal settlements and almost a billion slum dwellers around the world. This makes many urban citizens more vulnerable to natural hazards.

The United Nations International Strategy for Disaster Reduction is working with its partners to raise awareness and commitment for sustainable development practices that will reduce disaster risk and increase the wellbeing and safety of citizens - to invest today for a better tomorrow. Building on previous campaigns focusing on education and the safety of schools and hospitals, ISDR partners are launching a new campaign in 2010: Making Cities Resilient. The campaign will seek to convince city leaders and local governments to commit to a checklist of Ten Essentials for Making Cities Resilient and to work alongside local activists, grassroots networks and national authorities.

UNISDR and its partners have developed this checklist as a starting point for all those who want to join in the campaign. Equally important is that commitment to these Ten Essentials will empower local governments and other agencies to implement the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters, adopted by 168 governments in 2005. Good urban and local governance is the key to this resilience!

Urban risk reduction delivers many benefits. When successfully applied as part of sustainable urbanization, resilient cities help reduce poverty, provide for growth and employment, and deliver greater social equity, fresh business opportunities, more balanced ecosystems, better health and improved education.

I call on mayors and local governments to join in the Making Cities Resilient Campaign 2010-2011: My City is Getting Ready Campaign and to consider how they can implement as many of the Ten Essentials for Making Cities Resilient as possible. They are the closest institutional level to citizens and are elected leaders, expected to respond to the needs and safety of their constituencies. Their participation and leadership are vital. I also call on civil society, planners and urban professionals from different sectors, national authorities and community groups to help develop innovative solutions and to engage with the local governments to reduce risk and to encourage good governance by working together.

The success of the campaign will be measured by how many mayors and local governments join and commit as Champions, Resilient City Role Models and Participants; how many lasting partnerships and local alliances among citizen groups and grassroots organizations, academia and private sector develop; how many cities introduce new plans or changes to reduce risk.

The tragic 2010 earthquake disaster in Haiti's capital Port-au-Prince and other cities was a wake up call, followed by the earthquake and tsunami in Chile. Inaction is not an answer.

This information kit outlines the characteristics of a disaster resilient city and identifies what constitutes urban risk. It provides important facts and figures about disaster risk and describes the Making Cities Resilient Campaign 2010-2011. It informs mayors, local governments and other local actors about what they can do now to make their cities safer from disasters and how to get involved in the campaign.

**Margareta Wahlström,**  
*Special Representative of the  
Secretary-General for Disaster Risk Reduction,  
United Nations International Strategy for  
Disaster Reduction*

***"I urge local authorities to  
accelerate all efforts to  
make cities safer to prevent  
the loss of lives and assets."***

I have been travelling to many places around the world, witnessing for myself how local governments can contribute to [...] global challenges. It is not only the national governments. It is not only the President or Prime Minister or Government Ministers who can address climate change, sustainable economic development, poverty and disease. We need support and participation of local leaders: mayors, governors, county chiefs."

*Message from the United Nations  
Secretary-General,  
**Mr. Ban Ki-moon**  
Incheon, 11 August 2009*

**Sign up  
today** to make  
your **city** resilient  
to disasters

Raising awareness activities in the Philippines.





# Why Are Cities at Risk?

## Natural hazards: an increasing concern for city planners

**Rapid urbanization** has brought prosperity and opportunity to many people. This is the case where cities are well planned and well governed, keeping up with needed expansion in infrastructure and services. There are many rapidly growing cities where vulnerability has been reduced or controlled by good governance. One of these, for example, is Curitiba in Brazil: a city which has grown from a population of around 150,000 in 1950 to 2.5 million today. It has innovative environmental policies – including flood protection – and a high-quality living environment. A second Brazilian city, Porto Alegre, has grown sevenfold since 1950, and now has 3.5 million citizens, with strong grassroots organisations and the right to influence public investment priorities. This deliberate policy of citizen participation in local government has paid off, leaving the people of Porto Alegre with comparable environmental indicators and much the same life expectancy as city-dwellers in Western Europe or North America<sup>1</sup>.

But these are the exceptions, the success stories. The big picture is more alarming. When combined with the impact of extreme climate events and increased poverty – as many as a billion people now live in urban slums and in extreme poverty - the increased crowding of cities has also created new stresses. More and more people are settling in potential danger zones such as on unstable hills, volcanic flanks or earthquake faults, flood plains and coastal areas. They do so because planners and local

governments fail to provide alternatives, because they cannot afford safer land, or because they need to be closer to their sources of income.

**Natural hazards** should be of major concern to urban planners and managers. The impacts of these events are increasingly costly in terms of lost lives and property.

In the first decade of the 21<sup>st</sup> century (2000-2009), earthquakes accounted for nearly 60 per cent of the people killed by disasters, according to the Centre for Research on Epidemiology of Disasters (CRED). Climate related disasters such as flooding, flash floods, tropical cyclones, drought, wildfires and heat waves now affect more people worldwide. Climate change is accelerating and the melting of glaciers has severe consequences, among them glacial lake outbursts and flash floods. Sea level rise will put hundreds of cities in low-elevation coastal zones, and low-lying small islands, at risk of disaster, according to the Inter-governmental Panel on Climate Change.

UN-HABITAT estimates there are 3,351 cities located in low-elevation coastal zones around the world. Of the top 30 cities, 19 are in river deltas. The top ten, in terms of population exposed to coastal flood hazard, are Mumbai, Guangzhou, Shanghai, Miami, Ho Chi Minh City, Kolkata, Greater New York, Osaka-Kobe, Alexandria and New Orleans.



## An overview of natural hazards and urban concerns

**Natural hazards** affect cities in different ways but there is potential for disaster as city authorities struggle to manage overcrowding, rapid urbanization, and environmental degradation.



### Earthquake

*Urban concerns:* Many densely built and populated cities lie on earthquake belts. Non-engineered and poorly-built or badly-maintained buildings cannot withstand the force of seismic shocks, and are more likely to collapse. Most earthquake deaths are due to building collapses.



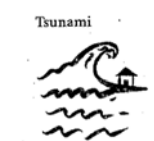
### Landslide

*Urban concerns:* A growing number of badly built or makeshift homes that have sprung up on or below steep slopes, on cliffs or at river mouths in mountain valleys, combined with poor drainage or slope protection, means that more people are exposed to catastrophic landslides, triggered by rainfall saturation or seismic activity.



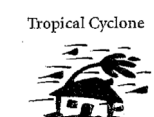
### Volcanic Eruption

*Urban concerns:* Settlements on volcano flanks or in historic paths of mud/lava flows put millions of people at risk. Adequate early warning systems and constructions to withstand ash and lahar flows are concerns for urban and rural areas near volcanoes.



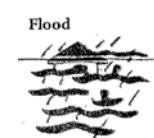
### Tsunami

*Urban concerns:* Many cities have been built along tsunami-prone coasts. Adequate construction, early warning systems and evacuation plans are primary measures to address these.



### Tropical Cyclone

*Urban concerns:* Many urban areas are exposed to cyclones, strong winds and heavy rain. Wind resistant constructions, early warning systems with advice for households to lock up windows and secure property and, if necessary, evacuate are primary measures (see also flood).



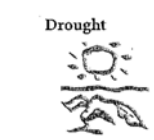
### Flood

*Urban concerns:* Flash floods are a growing urban hazard because concrete and compacted earth will not absorb water, because open spaces have been colonised, because engineering works have diverted river flows, because city drainage systems are inadequate. Housing on river banks or near deltas, may be badly built or dangerously sited.



### Fire

*Urban concerns:* Urban fires stem from industrial explosions or earthquakes. Accidental fires are serious, especially in informal settlements. Fire risks are increasing due to high density building, new construction materials, more high-rise buildings, and greater use of energy in concentrated areas. Uncontrolled wildfires can reach urban areas.



### Drought

*Urban concerns:* Drought is an increasing slow onset disaster that triggers migration to urban areas, putting pressure on housing, employment, basic services and the food supply from surrounding countryside. Many slums in Africa are filled with rural families driven from their villages by prolonged drought or conflict.

<sup>1</sup> Menegat, Rualdo (2002), "Environmental management in Porto Alegre", *Environment and Urbanization*, Vol. 14, No. 2, October, p 181–206.

<sup>2</sup> Chafe, Z. (2007) "Reducing natural disaster risk in cities", in *2007 State of the World: Our Urban Future*, World Watch Institute, Washington, D.C.

## What drives disaster risk in urban settings?

### Rising urban populations and increased density

*“Through the campaign towards safer cities and urban risk reduction, we can save lives, achieve gains towards the Millennium Development Goals, help protect natural resources, the urban heritage and the economic activities...”*

**Rishi Raj Lumsali,**  
Chairperson of  
the Association of  
District Development  
Committee of Nepal

Today, more than 3 billion people - half the world's population - live in urban areas. People are moving to cities in greater numbers than at any time in history, pulled by hope of better opportunities or pushed from rural areas by poverty, environmental degradation, conflicts, floods or drought. Natural increase is also a large contributor to urban population growth and density. High population density is a significant risk driver where the quality of housing, infrastructure and services is poor.

It need not be so. Many high density residential areas in Europe, Japan and North America are indeed safe, and protect citizens from storms and quakes. This is not the case of an increasing number of informal settlements. By the middle of the 21st century, the total urban population of the developing world is expected to more than double in number, increasing from 2.3 billion in 2005<sup>3</sup> to 5.3 billion in 2050. Nearly three quarters of the urban population and most of the largest cities are now in low- and middle-income nations: a sevenfold increase since the 1950s<sup>4</sup>.

### Weak urban governance

How this large and rapidly growing urban population is served and governed have major implications for development, and for reducing disaster risk. In high-income nations, a comprehensive web of infrastructure and institutions help reduce risks from disasters and disaster impacts. Urban populations there take for granted that they have institutions, infrastructure, services and regulations that protect them from disasters – including extreme weather, floods, fires and technological accidents. These institutions also supply everyday needs: health care services integrated with emergency services and sewer and drainage systems that serve daily requirements but also can cope with

storms. But only a very small proportion of urban centres in low- and middle-income nations have a comparable web of institutions, infrastructure, services and regulations. In cases of poor urban governance, local authorities are unable to provide infrastructure, services or safe land for housing. A weak and poorly- resourced local government that lacks investment capacity and competence that is not engaged in participatory and strategic urban and spatial planning on behalf of low-income citizens in informal settlements, will not embrace the challenge of resilience, and will increase the vulnerability of much of the urban population. Cities such as Mumbai and Bangalore have a high proportion of people living in slums or informal settlements without basic services. But these cities certainly have enough prosperity to address such issues thanks to the central government which has allocated a very large capital sum to support city governments.

### Unplanned urban development

Challenges posed by the rapid growth of many cities and the decline of others, the expansion of the informal sector and the role of cities in both causing and mitigating climate change, all require strong urban planning systems. Many cities in Latin America, Africa and Asia have doubled their size in less than 30 years. UN-HABITAT projected that by 2015, 12 of the 15 largest cities worldwide will be in developing countries. Much of the urban expansion takes place outside the official and legal frameworks of building codes, land use regulations and land transactions. Existing planning instruments are often unrealistic. Sustainable urbanization requires comprehensive steps to manage risk and emergency plans; and to enforce urban planning regulations and building codes on the basis of realistic standards, without excluding the poor.

### Lack of available land for low-income citizens

Most of the urban poor are more exposed to hazards and disasters because they live in informal settlements on unsafe sites where basic services are often lacking. Currently, one in four households lives in poverty in the developing world, 40% being in African cities. In the developing world, 25 to 50% of the people live in informal settlements or slums in and around urban centres, and these this number is are growing by 25 million people per year<sup>6</sup>.

### Inappropriate construction

Inappropriate construction puts millions needlessly in danger. Many die or are seriously injured when buildings collapse after earthquakes, landslides, severe storms, flash floods and tsunamis. Up to 80% of deaths from natural disasters occur in buildings that collapse during earthquakes, according to available statistics.

Building codes and regulations set minimum standards for safety, including for fire protection and resistance to natural hazards in many countries. Building practices and the enforcement of the regulations are essential and are often the missing link. Cutting of costs, lack of incentive or distorting incentives, coupled with corruption, are the main reasons why even well-designed buildings may collapse. Informal settlements and illegal or non-engineered constructions shelter the greater part of city dwellers in developing countries. Even if they have money, people with no property rights or insecure tenure will not invest in safe structures or improvements.

Upgrading critical infrastructure and public buildings would be a minimum requirement for sustainable urbanizations and resilience. Safe schools and hospitals would provide necessary shelter and services. Storm drainage would reduce floods and landslides - and at low cost.

### Concentration of economic assets

Economic growth has been fastest in coastal regions and near large navigable rivers, at risk from flooding, sea level rise and extreme weather events which could become more frequent and intense due to climate change. Economic assets tend to be clustered in large cities. Disasters there can have devastating effects on the local and national economy, as well as in lost lives and severe injuries, such as during the Great Hanshin Awaji earthquake that destroyed the port and much of the city of Kobe in Japan, in 1995. Kobe City has recovered completely and has since put in place a comprehensive and innovative set of policies and actions to deal with disaster risk.

### Ecosystems decline

Ecosystems provide substantial benefits and services to cities and local governments. Yet as a result of unplanned urban development and economic growth, many ecosystems have been significantly altered and exploited, leading to a dangerous imbalance. Squatter encroachment on waterways and a shortage of appropriate drainage systems have exposed many urban areas to flash floods. Deforestation has led to hillside erosion, making people vulnerable to landslides triggered by heavy rains, and the use of concrete has changed the capacity of soil to absorb flash floods. 60% of ecosystem services are in decline while consumption is increasing at a rate of more than 80% <sup>7</sup>. Fewer than half of the cities in the world have urban environment plans<sup>8</sup>.

**Sign up  
today** to make  
your **city** resilient  
to disasters

<sup>3</sup> UN-HABITAT (2009), *Planning Sustainable Cities: Global Report on Human Settlements 2009*, Earthscan, London and Sterling, VA.

<sup>4</sup> Satterthwaite, David (2007), *The Transition to a Predominantly Urban World and its Underpinnings*, Human Settlements.

<sup>6</sup> International Strategy for Disaster Reduction (ISDR) (2009), *Global Assessment Report on Disaster Risk Reduction*, United Nations, Geneva.

<sup>7</sup> Millennium Ecosystem Assessment (2005), *Ecosystems and Human Well-Being: Current State and Trends: Findings of the Condition and Trends Working Group*. Island Press, Washington D.C.

<sup>8</sup> Alber, Gotelind and Jollands, Nigel (2009), “Cities, their energy use, and washing lines”, *Urban World*, Volume 1 Issue 4, pp. 8-10.



Ten most populous cities and associated disaster risk

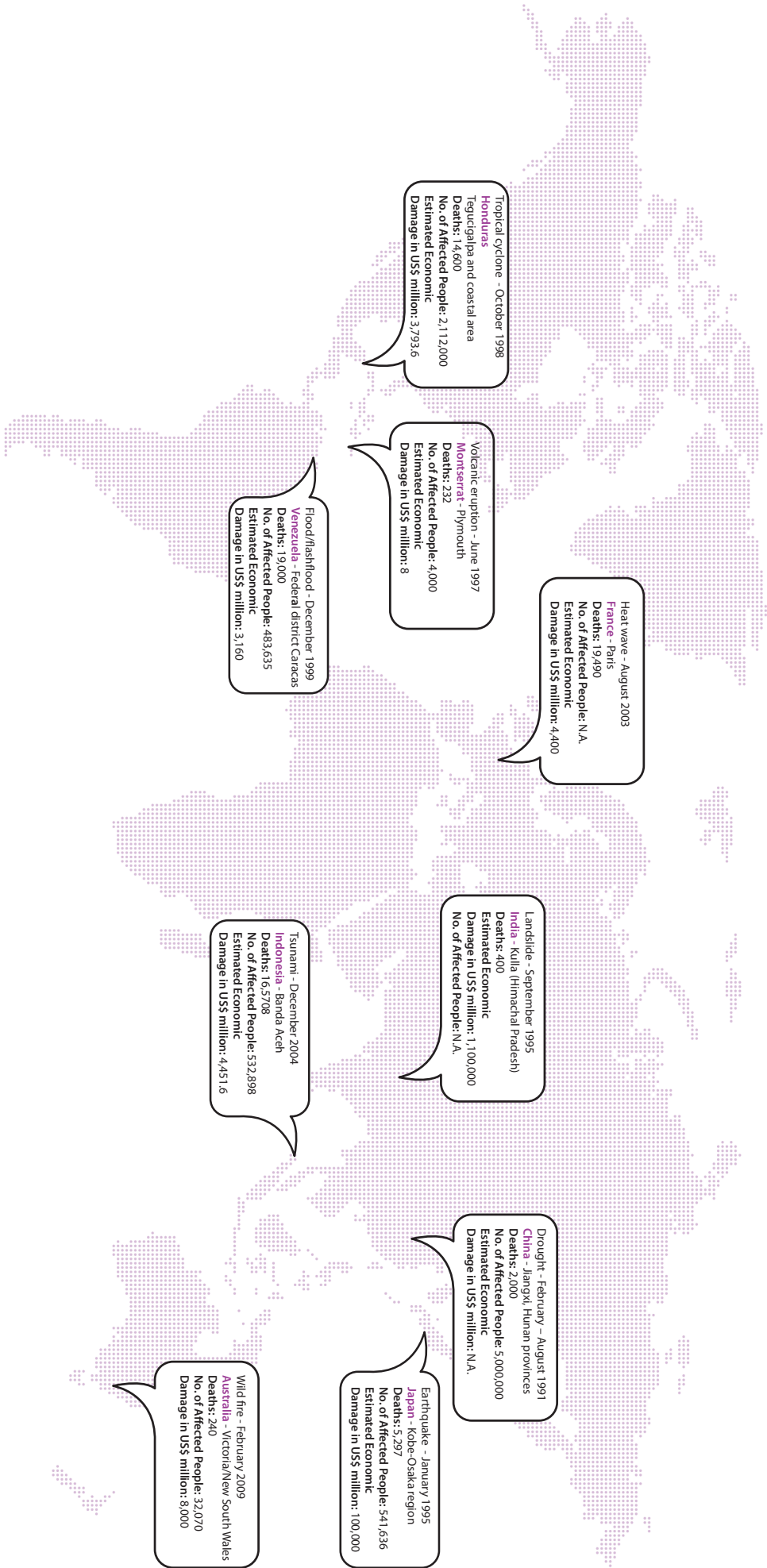
City	Population (million)	Disaster risk					
		Earthquake	Volcano	Storms	Tornado	Flood	Sturm surge
Tokyo	35.2	x		x	x	x	x
Mexico City	19.4	x	x	x			
New York	18.7	x		x			x
São Paulo	18.3			x		x	
Mumbai	18.2	x		x		x	x
Delhi	15.0	x		x		x	
Shanghai	14.5	x		x		x	x
Kolkata	14.3	x		x	x	x	x
Jakarta	13.2	x				x	
Buenos Aires	12.6			x		x	x

Global trends in urbanization

Region	Urban population					Percentage urban				
	1950	1975	2007	2025	2050	1950	1975	2007	2025	2050
World	737	1518	3294	4584	6398	29.1	37.3	49.4	57.2	69.6
More developed region	427	702	916	99	1071	52.5	67.0	74.4	79.0	86.0
Less developed region	310	817	2382	3590	5327	18.0	27.0	43.8	53.2	67.0
Africa	32	107	373	658	1233	14.5	25.7	38.7	47.2	61.8
Asia	237	574	1645	2440	3486	16.8	24.0	40.8	51.1	66.2
Europe	281	444	528	545	557	51.2	65.7	72.2	76.2	83.8
Latin America and the Carribean	69	198	448	575	683	41.4	61.1	78.3	83.5	88.7
North America	110	180	275	365	402	63.9	73.8	81.3	85.7	90.2
Oceania	8	13	24	27	31	62.0	71.5	70.5	71.9	76.4

Facts and Figures

Figure 3: Examples of major city disasters per hazard type



Sources: Centre for Research on Epidemiology of Disasters (CRED) (2009); U.S Department of the Interior, USGS Fact Sheet FS 103-01. <http://pubs.usgs.gov/fs/fs-0103-01/fs-0103-01.pdf>  
Note: These figures often encompass urban areas outside the actual city boundaries up to entire regions.



## Facts and Figures

Not only are cities home to over three billion people, but they are the economic engines of our societies and account for most nations' wealth. In fact, most of the global GDP of US\$ 39.4 trillion (2007 figure, in constant 2000 US\$) is generated in urban environments.<sup>10</sup>

### Projected losses from earthquakes in megacities...

**Istanbul:** A large earthquake in Istanbul is would be expected to kill 40,000 persons, injure 200,000 and leave a staggering 400,000 households in need of shelter. About 40,000 buildings would be uninhabitable or suffer total collapse through "pancake type failure". Another 300,000 more would have moderate to severe damages. The direct monetary losses due to building damage alone would add up to US\$ 11 billion.

**Tehran:** The North Tehran and Mosha faults situated towards the northern side of Greater Tehran and the Ray Fault on the southern limits of the city have the potential to generate Mw= 7.2 and 6.7 respectively. This, according to the earthquake scenarios developed under the JICA-CEST, 1999-2000, could produce a death toll of 120,000 to 380,000 if either of the two faults were to move, because of the vulnerability of existing structures.

**Mumbai:** Several studies suggest that one of the most vulnerable elements exposed in Mumbai is its building stock, which certainly contributes to the increasing risk of its population. The Mumbai region is entirely urban and the building stock exhibits a rich mix of several different technologies. A moderately low earthquake intensity level of VII (MSK scale) in the city could produce a death toll of 34,000 if it was to happen early in the morning. The flood risk is high.

**Kathmandu City:** A large influx of migrants has increased pressure on the local authorities to provide housing and basic services. The old part of town is particularly vulnerable due to: a) poor living conditions in high density neighbourhoods, b) poor capacity of the buildings to withstand seismic forces, c) narrow roadways that limit access in an emergency response, and d) limited water provision along with intricate electrical installations where fires can easily take hold<sup>9</sup>.

### In small urban centres

Many people in Africa, Asia and Latin America live in tens of thousands of small urban centres and in hundreds of thousands of large villages that have several thousand inhabitants and that might also be considered as small urban centres. The extent to which their populations face disaster needs consideration – especially given the over-concentration in the literature on large cities or mega-cities. Far more people live in small urban centres in low- and middle-income nations than in mega-cities.

Some of Turkey's biggest builders have readily admitted to using shoddy materials and bad practices in the urban construction boom. In an interview in 2009 with the Turkish publication *Referans*, a billionaire Turkish developer described how in the 1970s, salty sea sand and scrap iron were routinely used in buildings made of reinforced concrete. "At that time, this was the best material," he said, according to a translation of the interview. "Not just us, but all companies were doing the same thing. If an earthquake occurs in Istanbul, not even the army will be able to get in."

**Source:** In megacities, 'rubble in waiting'; Millions are put at risk by flimsy housing built in populous quake zones, by Andrew C Revkin, *International Herald Tribune*, 26 February 2010.

Each year 25 million more people are living in slums and informal settlements which are often built on unsafe land, unstable slopes and flood plains.

UNHABITAT, 2010 State of the World's Cities report.

Sign up today to make your city resilient to disasters

<sup>9</sup> Earthquakes and Megacities Initiative (2010), Megacities Disaster Risk Management Knowledge Base (MDRM-KB), <http://www.pdc.org/emi/emihome.html>.  
<sup>10</sup> Development Data Platform (DDP) (2008), Population data: UN Population Division, Development Data Group World Population Prospects, 2006. Revision, World Bank, Washington D.C.



# What is a Disaster Resilient City?

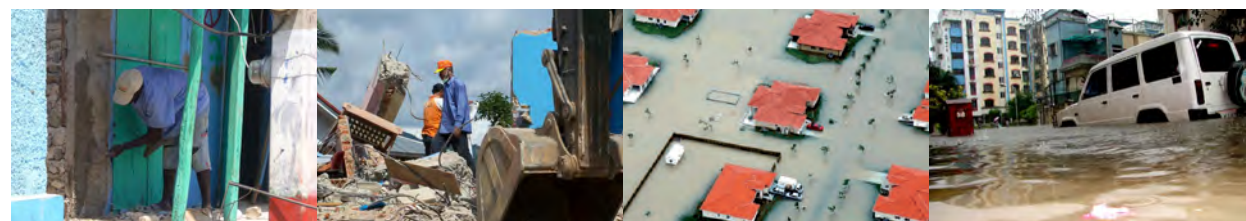
## Some definitions

There are a number of actions that local governments, citizens and the private sector can undertake to make a city more resilient. Natural hazards will always occur in different magnitude and severity, but they do not need to turn into devastation. Is your city ready?

### A disaster resilient city:

- Is one where people participate, decide and plan their city together with the local government authorities, based on their capacities and resources
- Has a competent and accountable local government that caters for sustainable urbanization with participation from all groups
- Is one where many disasters are avoided because the whole population lives in homes and neighborhoods served by good infrastructure (piped water, good sanitation and drainage, all-weather roads, electricity) and services (health care, schools, garbage collection, emergency services), in structures that meet sensible building codes, without the need for informal settlements on flood plains or steep slopes because no other land is available
- Understands its dangers, and develops a strong, local information base on hazards and risks, on who is exposed and who is vulnerable
- Has taken steps to anticipate disaster and protect assets – people, their homes and possessions, cultural heritage, economic capital – and is able to minimize physical and social losses arising from extreme weather events, earthquakes or other hazards
- Has committed the necessary resources and is capable of organizing itself before, during and after a natural hazard event
- Is able to quickly restore basic services as well as resume social, institutional and economic activity after such an event
- Understands that most of the above is also central to building resilience to climate change.

*One important factor for successful urban disaster risk reduction is the relationship between the city government and those within its jurisdiction who are most at risk*



The cost of a disaster-safe hospital or health facility is negligible when included in early design considerations.

For the vast majority of new health facilities, incorporating comprehensive disaster protection from earthquake and weather events into designs from the beginning will add only 4% to the total cost<sup>13</sup>

**What is a city?** *To an economist, a city is an engine for economic growth, a haphazard arrangement of physical assets and potential rewards. To a politician or a planner, a city is a place of connections: a network of roads, electrical cables, piped water and drains. To the urban workforce, and the migrants attracted to the city, it offers shelter, safety and a source of livelihood. To property owners, developers and planners, a city is its housing, its stock of physical assets. To someone who lives in a city – and that includes all of the above and many more – a city is a physical and cultural arena, a place of political freedom, a source of cultural and intellectual vitality. And all of this is at risk from a storm surge, a cyclone, a catastrophic volcanic eruption, or a set of powerful earthquake waves racing through the bedrock at 7,000 kilometres an hour.*

**Resilience** means the ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions<sup>11</sup>.

**Sustainable urbanization** is understood as a process which promotes an integrated, gender-sensitive and pro-poor approach to the social, economic and environmental pillars of sustainability. It is based on participatory planning and decision making processes, and inclusive governance. More specifically, the principles of sustainable urbanization involve<sup>12</sup>:

- Accessible and pro-poor land, infrastructure, services, mobility and housing;
- Socially inclusive, gender sensitive, healthy and safe development;
- Environmentally sound and carbon-efficient built environment;
- Participatory planning and decision making processes;
- Vibrant and competitive local economies promoting decent work and livelihoods;
- Assurance of non-discrimination and equitable rights to the city; and
- Empowering cities and communities to plan for and effectively manage adversity and change- to build resilience. (UN-HABITAT World Urban Campaign, 2009)

The second session of the Global Platform for Disaster Risk Reduction in June 2009 highlighted targets for the implementation of the Hyogo Framework for Action. By 2011 national assessments of the safety of existing education and health facilities should be undertaken, and by 2015 concrete action plans for safer schools and hospitals should be developed and implemented in all disaster-prone countries. By 2015, all major cities in disaster-prone areas should include and enforce disaster risk reduction measures in their building and land use codes. Targets were also proposed for national risk assessments, municipal disaster recovery plans, early warning systems, water risks, and the enforcement of building codes.



Haiti, Earthquake 2010

<sup>11</sup> United Nations International Strategy for Disaster Reduction (UNISDR) (2009), UNISDR Terminology on Disaster Risk Reduction, UNISDR, Geneva.

<sup>12</sup> UN-HABITAT (2009) World Urban Campaign

<sup>13</sup> WHO, PAHO, UNISDR (2008), 2008-2009 World Disaster Reduction Campaign 'Hospitals Safe from Disasters'. [www.safehospitals.info](http://www.safehospitals.info).

## TEN-POINT CHECKLIST – ESSENTIALS FOR MAKING CITIES RESILIENT

The campaign proposes a checklist of *Ten Essentials for Making Cities Resilient* that can be implemented by mayors and local governments. The checklist derives from the five priorities of the *Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters*, a key instrument for implementing disaster risk reduction. Achieving all, or even some, of these ten essentials will help cities to become more resilient. Have your City Council and local government sign up to this!

- ✓ Put in place organization and coordination to understand and reduce disaster risk, based on participation of citizen groups and civil society. Build local alliances. Ensure that all departments understand their role in disaster risk reduction and preparedness.
- ✓ Assign a budget for disaster risk reduction and provide incentives for homeowners, low-income families, communities, businesses and the public sector to invest in reducing the risks they face.
- ✓ Maintain up-to-date data on hazards and vulnerabilities, prepare risk assessments and use these as the basis for urban development plans and decisions. Ensure that this information and the plans for your city's resilience are readily available to the public and fully discussed with them.
- ✓ Invest in and maintain critical infrastructure that reduces risk, such as flood drainage, adjusted where needed to cope with climate change.
- ✓ Assess the safety of all schools and health facilities and upgrade them as necessary.
- ✓ Apply and enforce realistic, risk-compliant building regulations and land-use planning principles. Identify safe land for low-income citizens and develop upgrading of informal settlements, wherever feasible.
- ✓ Ensure that education programmes and training on disaster risk reduction are in place in schools and local communities.
- ✓ Protect ecosystems and natural buffers to mitigate floods, storm surges and other hazards to which your city may be vulnerable. Adapt to climate change by building on good risk reduction practices.
- ✓ Install early warning systems and emergency management capacities in your city and hold regular public preparedness drills.
- ✓ After any disaster, ensure that the needs of the survivors are placed at the centre of reconstruction with support for them and their community organizations to design and help implement responses, including rebuilding homes and livelihoods.

**Sign up  
today** to make  
your **city** resilient  
to disasters

## Urban risk reduction as an opportunity – what are the benefits?

Cities that proactively seek to reduce disaster risk, as part of their sustainable urbanization efforts, can benefit greatly in the following ways: saved lives and property in case of disaster with dramatic reduction in fatalities and serious injuries

- Protected development gains and less diversion of city resources to disaster response and recovery
- Active citizen participation and local democracy
- Increased investment in houses, buildings and other properties, in anticipation of fewer disaster losses
- Increased capital investments in infrastructure, including retrofitting, renovation and renewal
- Business opportunities, economic growth and employment as safer, better-governed cities attract more investment
- Balanced ecosystems, which foster provisioning and cultural ecosystem services such as fresh water and recreation
- Overall better health and wellbeing
- Improved education in safer schools.

### The Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters

The Hyogo Framework for Action was adopted by 168 Member States in Japan in 2005 to build the resilience of nations and communities by the year 2015. The five priorities are equally important for urban settings:



**Make disaster risk reduction a priority in urban practices**

**Know urban risks and take actions**

**Build understanding and awareness of urban risks**

**Reduce urban risks**

**Prepare your city and be ready to act**

[www.preventionweb.net/english/hyogo/](http://www.preventionweb.net/english/hyogo/)



# The Making Cities Resilient Campaign

## Main objectives of the campaign

In this campaign, the term 'city' refers to urban areas in general, encompassing the responsibility of 'local governments' of different scales, whether regional, provincial, metropolitan, townships or villages.

The aim is to get 100 mayors to commit to at least one of the Ten Essentials for Making Cities Resilient by 2011; and to involve hundreds of participating local governments and as many citizens as possible to pledge to join the hospital and school safety initiative.

The vision of the campaign is to achieve resilient, sustainable urban communities.

The campaign will urge local governments to take action now to reduce cities' risks to disasters.

The objectives of the *Making Cities Resilient* Campaign are threefold, and can be achieved through building long-lasting partnerships:

### Know more

Raise the awareness of citizens and governments at all levels of the benefits of reducing urban risks

### Invest wisely

Identify budget allocations within local government funding plans to invest in disaster risk reduction activities

### Build more safely

Include disaster risk reduction in participatory urban development planning processes and protect critical infrastructure

**"My City is getting ready"** is a rallying call for all mayors and local governments to make as many cities as possible as resilient as possible. It is also a call for local community groups, citizens, planners, academia and the private sector to join these efforts.

While the campaign addresses citizens – those who live in urban areas and who elect the decision makers who can take the necessary steps to make their cities safer – the campaign's principal target groups are mayors and local governments of cities of different sizes, characteristics, locations and risk profiles. Mayors and local governments are the agencies who can take action and make our cities safer. Mobilizing these important actors in the disaster risk reduction process is essential to making cities resilient.

The campaign slogan has meaning for everyone. Whatever the city, the message to reduce risk will resonate with all citizens worldwide. For example, Sao Paulo is Getting Ready! Kobe is Getting Ready! Istanbul is Getting Ready! Santa Tecla is getting ready!

### Sign up to the One Million Safe Schools and Hospitals Initiative

People in unsafe schools, hospitals and health facilities are at the greatest risk when a disaster strikes. We can improve the safety of schools, hospitals and health facilities to address the increasing risk due to climate change and other disasters - natural and man-made. The One Million Safe Schools and Hospitals Initiative of the campaign encourages everyone to make a pledge for a school or hospital and to make them safer now. Anyone can make a pledge. Everyone can contribute. Be an advocate, a leader or a champion for safe schools and hospitals.  
<http://www.safe-schools-hospitals.net>

**Sign up  
today** to make  
your **city** resilient  
to disasters

*"In recent years, cities around the world are being faced with threats such as large-scale disasters and diseases including influenza, and we are constantly living side-by-side with the risk of various perils. In the midst of such circumstances, I believe that cities must not only dedicate themselves to their own crisis management endeavors, but also enhance collaboration with neighboring cities, countries and regions to create a system in which they can help each other in times of need. Utilizing its broad network, CITYNET is already promoting city-to-city cooperation on the theme of "Disaster Prevention". Let us work together to further deepen our city-to-city partnerships and aim for a "World Resilient to Disasters".*

Fumiko Hayashi  
President of CITYNET / Mayor of  
Yokohama





## About the campaign partners

The secretariat of the United Nations International Strategy for Disaster Reduction (UNISDR) is the coordinator of the Making Cities Resilient Campaign 2010-2011, but its local, regional and international partners and participating cities and local governments are the drivers and owners of the campaign. A number of committed mayors, other high-level public figures and “role-model” local governments will be identified and help UNISDR and its partners to promote and implement the campaign.

Central to ISDR's partnering initiative for the campaign is the spread of local government alliances for disaster risk reduction. Active members of this global alliance will become campaign promoters in their areas of influence. They will draw upon one another's expertise as well as provide support and give substance to the advocacy, political and technical dimensions of the campaign.

Join the alliance as a supporter by sending your information to: [isdr-campaign@un.org](mailto:isdr-campaign@un.org) or sign up on the website under [www.unisdr.org/campaign](http://www.unisdr.org/campaign).

UN-HABITAT is a key partner in the campaign along with many other UN organizations, city associations and organizations, especially the United Cities for Local Governments, ICLEI and the City Alliance. NGO networks and grassroots organizations that participate in the ISDR system have already signed up. Resilient Cities platforms or task forces will support the campaign in the regions.

Furthermore, the Making Cities Resilient Campaign 2010-2011 is linked to UN-HABITAT's World Urban Campaign on “Sustainable Urbanization”. Both campaigns adhere to the same principles, contributing towards the same long-term goal of sustainable development. Many of the communication tools and participating cities will be the same. The *Making Cities Resilient Campaign* objective is to ensure that the important principles of the *Hyogo Framework for Action* are integrated into the local environment. The next step is to turn words into action.

The Asia Regional Task Force on Urban Risk Reduction has developed a guideline to implement the Hyogo Framework locally, to assist local governments to become resilient. It is already used by the task force members in capacity building efforts with city officials. Another planning tool to support risk reduction will be developed by the partners in the campaign, led by UN-HABITAT and UNISDR. Capacity building and training opportunities will be provided by the participating partners and cities - and be developed further during the campaign.

Many other global and regional initiatives will be highlighted during the two year campaign and many proven practices of urban risk policies will be available on line.

**To learn more about campaign activities and partners, visit the website at [www.unisdr.org/campaign](http://www.unisdr.org/campaign)**



## Mayors and local governments – the keys to building resilient cities

Mayors and local governments hold key positions in building resilience to disasters within their communities. Mayors provide leadership for the well-being of their constituencies. Local governments deliver essential services such as health, education, transport and water. They issue construction permits, manage public works and plan and control urban development, all of which provide opportunities to ensure safer development that can reduce a community's vulnerability to disasters.

Local governments devise and create developments that affect millions of people in cities everywhere. The campaign calls on mayors and local governments to work with their constituencies, and include risk-reducing initiatives in their strategic planning processes, as a way to get ready for future natural hazards with confidence and resilience.

Mayors and local governments can play a role in helping cities to get ready to meet future risks. National governments, local community and professional associations, international, regional and civil society organizations, donors, the private sector, academia and all citizens must also be engaged. All of these stakeholders need to play their respective roles in building disaster resilient cities, and local government is critical in order to achieve success.

*“Disaster preparedness and risk mitigation are key priorities in guiding good city planning, design, development, and daily administration. Our cities need commitment and support from the national government through policy that empowers us to undertake the necessary and decisive actions to prevent and reduce human and other losses. With such decentralization allowing for better integrated urban development, not only can we create sustainable cities, regions and countries, but also resilient people.”*

*Dr. Fauzi Bowo, Governor, Jakarta, Indonesia*

*“It is sad that yet another city is in a serious disaster with thousands of lives lost in Haiti. It convinces me that this campaign is more urgent than ever before. I put myself in the shoes of the local government leaders and it cannot be anything easy.... All this calls for a real campaign for safer cities and building resilience.”*

*District Chairman Rev. Sam Ebukele L'Kwisk (Uganda)*

**Mayors and local governments can reduce risk in the following ways:**

- Sign up to and work towards the Ten Essentials checklist, make a public announcement and share your experience, good practice and progress with participants in the campaign and other cities
- Work closely with your central government to implement nationally planned approaches to urban planning, local development and disaster risk reduction
- Create local partnerships and alliances with your citizens and community groups
- Engage your local and national universities to provide advice on hazard monitoring and risk assessment and conduct research on ways for your city to build resilience
- Focus on your poor and high-risk communities and take the campaign goals and messages to grassroot communities
- Organize public hearings, discussions, drills and other awareness raising activities during the International Day for Disaster Reduction or on the anniversaries of past disasters.
- Use the campaign and Ten Essentials for Making Cities Resilient to address climate change challenges and your “green agenda”.



## What can you do to make your city more resilient? Join the campaign!

### Local government associations

- Put disaster risk reduction at the top of your agenda
- Partner with UNISDR to reach out to local authorities
- Support implementation of the campaign at the local government and community levels.

### National governments

- Set up and foster multi-stakeholder national platforms for disaster risk reduction that include local governments or their associations
- Give consideration to local governance and sustainable urbanization issues
- Ensure that your ministries and institutions take risk reduction into account in their planning and policy making
- Encourage economic development in rural areas and smaller cities in order to reduce the pressure of accelerated migration to high-risk peripheral areas and slums
- Make disaster risk reduction a national and local priority and clearly identify institutional responsibilities for reducing risk at all levels.

### Community associations

- Sign up to the campaign and encourage your organization to participate in it
- Promote active engagement of community members in the campaign,

using the campaign's promotional and informational resources

- Build partnership in projects with local government, NGOs, the private sector etc. to make your local area safer
- Share local knowledge and experience with other actors; support activities such as planning, risk assessments and mapping, maintenance of critical infrastructure, safer land use and enforcement of building standards

- Collaborate in measuring progress through participative monitoring.

### UN, international or regional organizations, NGOs

- Sign up as a campaign partner and commit to support local governments to build resilience to disasters
- Strive to develop better tools and methodologies for urban risk reduction in any of the *Ten Essentials for Making Cities Resilient* areas
- Advocate for increased urban risk reduction at the local level
- Encourage greater involvement of local actors in regional and international policy development
- Strengthen the links between NGOs, local governments and community-based organizations.

### Donors

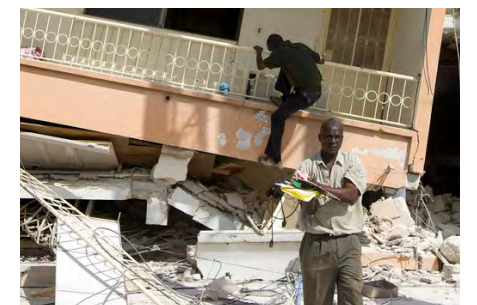
- Ensure that disaster risk reduction is part of your programme planning and budget allocations; and include this for sustainable urbanization, climate adaptation, development, humanitarian, disaster response and reconstruction programmes
- Fund projects that focus on making cities resilient to disasters.

### Private sector

- Make sure your business is not increasing disaster risk or degrading the environment
- Partner in projects with your local government or communities where you conduct your enterprise to make your city safer – only a resilient city can support sustainable economic growth
- Commit resources to research and development projects on urban risk reduction.

### Academia

- Adapt the science agenda to emphasize this paramount research topic and advance the state-of-the art in urban risk reduction
- Introduce urban risk profiling and risk reduction processes as part of the courses and research in several disciplines, including urban planning
- Collaborate with regional and local governments in applied research projects on risk assessments and risk reduction; test and apply your methods, models and findings in local government environments
- Go public with your knowledge and make your expertise available to local governments and the public at large.



**Sign up today** to make your **city** resilient to disasters

## How to nominate a city for the campaign

The campaign wants to highlight the good practice and successes that cities have experienced in the course of their individual risk reduction efforts. Leading by example is often the most compelling way to engage others. Showing what is possible and making clear the benefits that can be had from making a city resilient to urban risks is what the campaign is all about.

Perhaps your city would be an ideal *Role Model City* in the *Making Cities Resilient* Campaign. We want to showcase exemplary *Resilient City Role Models* that have demonstrated leadership in, and commitment to reducing urban risks. *Role Model Cities* will be asked to commit some time to support the campaign in two meaningful ways:

1. Raise awareness and advocate for local government needs at the highest levels
2. Promote and support implementation of disaster risk reduction in your country

### Become a Resilient Cities Champion!

- Are you a mayor or local government leader? As a Champion and goodwill ambassador for resilient cities everywhere, nominate a community leader, mayor, governor or other influential figure in your community who is willing to support UNISDR and our partners during the campaign to encourage, help and support others.

### Become a Role Model City!

- Has your local government already made good progress towards resilience? Is your city or local government willing to showcase its good practice in building resilience and safety in at least five out of the *Ten Essentials for Making Cities Resilient*? Is your local government willing to provide opportunities to other local governments to learn from your

experiences? Become a *Role Model City* and share your success with the world. Role Models will be featured prominently throughout the campaign.

### Become a Resilient Cities Participant!

- If you are a local government that is in the early stages of risk reduction planning and management, make a pledge to improve resilience and safety to disasters and let the campaign know about it.
- If you are a community group, NGO or other active member of your city who wants to commit to and support the campaign goals and work with your local government to increase the disaster resilience.

### The nomination process

To become a Resilient Cities Champion, a Resilient Cities Role Model or a Resilient Cities Participant you have to start with the nomination process. You will find nomination forms and all of the information you need on the website ([www.unisdr.org/campaign](http://www.unisdr.org/campaign)).

### To nominate a Resilient City Role Model – cities and local governments

Send your nomination proposal to UNISDR, explaining why the nominated city can serve as a role model demonstrating good practice in building resilience. If accepted, UNISDR will invite the nominated city to be officially designated as a Resilient Cities Role Model in the campaign. UNISDR will then work with the city to identify opportunities for Role Model activities as well as publish the results of the cooperation and good practices for the duration of the campaign. For further details, contact [isdr-campaign@un.org](mailto:isdr-campaign@un.org) for more information.

### To nominate a *Resilient Cities Participant* – cities and local governments

Cities and local governments that are interested in participating in the campaign but that might not wish to become a Resilient Cities Role Model can instead pledge their commitment to improve in any of the Ten Essentials for Making Cities Resilient. A letter from the mayor's office to UNISDR will confirm this pledge and UNISDR will list the city as a Resilient Cities Participant in the campaign. UNISDR will regularly update all participating cities on campaign and partner activities. Further information is available at [www.unisdr.org/campaign](http://www.unisdr.org/campaign).

### To nominate a Resilient Cities Champion and goodwill ambassador - cities and local governments

- Campaign partners, national platforms and city councils can nominate a person to become a *Resilient Cities Champion* and goodwill ambassador during the 2010-2011 Campaign in their personal capacity. This is a non-remunerated designation, which requires the nominee to provide leadership and visibility.

## WHY SHOULD A LOCAL GOVERNMENT SIGN UP TO THE CAMPAIGN - SOME BENEFITS

- Save lives and livelihoods through proper planning and preparedness
- Work towards sustainable urbanization
- Help protect natural resources, your urban heritage and economic activity
- Provide expertise, participate in or host city-to-city-learning events on how to reduce disaster risk in specific areas, putting your city "on the map"

- Be part of high visibility events to discuss critical issues with national and global counterparts, such as linking disaster risk reduction to climate change adaptation, Millennium Development Goals, safe schools and hospitals and financing issues
- Be eligible to receive the UN Sasakawa Award for Disaster Reduction 2010-2011, which recognizes examples of local governments' good practice and innovation. The award recipient will be linked to high-profile media events
- Have your good practice included and disseminated in publications, on the website and in the print and broadcast media
- Show leadership by working towards a more resilient city/township and initiate the all-important first steps
- Gain access to expertise, partners, learning opportunities and consider the possibility of "twinning" with another Role Model city
- Gain increased visibility and prestige for political leadership and innovation

## Contacts

### For more information

[www.unisdr.org/campaign](http://www.unisdr.org/campaign)  
[www.preventionweb.net](http://www.preventionweb.net)  
 Email: [isdr-campaign@un.org](mailto:isdr-campaign@un.org)

Campaign network and Global Alliance workspace: <http://groups.preventionweb.net/scripts/wa->