

Making Cities Resilient: Summary for Policymakers

A global snapshot of how
local governments reduce disaster
risk – April 2013



UNISDR
The United Nations Office for Disaster Risk Reduction



Photo cover: Alessandro Zanchini, Comune di Venezia.

The City of Venice joined the Campaign as a Role Model for cultural heritage protection and climate change adaptation. Venice has developed a plan with both structural and bio-geomorphological management components, including coastal reinforcement, wetland reconstruction, reclamation of polluted sites, a system of mobile sea barriers, city pavement elevation, urban maintenance, flood monitoring, early warning and public awareness. Saint Mark's Basilica: living with floods and tourists...

Foreword

“Building resilience is a forward looking, target driven approach to urban development that uses a wide range of measures addressing all elements of urban systems. Ensuring these targets are met demands all levels of communities and governments work together to ensure the safety of all people and protect the economic, social, environmental, and cultural assets and attributes which define the unique character of each city.

As global leaders we must integrate disaster risk reduction criteria as a measure of progress for sustainable development plans and strategies. We must also strengthen local level capacity by reflecting the needs of local governments in international frameworks and promoting standards of resilience that can guide urban development and planning along a sustainable path.”

Margareta Wahlström

Special Representative of the Secretary General for
Disaster Risk Reduction, UNISDR



UNISDR

The United Nations Office for Disaster Risk Reduction

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About the Making Cities Resilient Campaign

UNISDR launched the Making Cities Resilient Campaign in 2010 to support sustainable urban development by promoting resilience activities and increasing local level understanding of disaster risk. The Campaign is guided by three central themes to Know more, Invest wiser, and Build Safer. Guidance on these principles is outlined in the “Ten Essentials for Making Cities Resilient”, the building block for disaster risk reduction, developed in line with the Five Priorities of the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (HFA). Agreement to the Ten Essentials forms the basis of a city’s commitment toward improving their resilience, and is the organizing principle around which campaign signatories pool good practices, tools, resources and frameworks for reporting and monitoring of progress. The Ten Essentials checklist is supported by the Handbook for Local Government Leaders and the Local HFA Government Self Assessment Tool. Both are designed to help urban leaders assess their risk and implement sustainable disaster risk reduction plans. Through its partnerships, networks and practical tools and resources, the Campaign encourages commitments by local and national governments to make disaster risk reduction and climate change adaptation a policy priority and bring the global HFA closer to local needs. As of April 2013, more than 1,400 cities had signed up to the Campaign, with 40 Role Model Cities willing to coach others.

To sign-up to the campaign as a city, partner organization or an individual advocate, visit: www.unisdr.org/campaign/resilientcities

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01 > The Value of Building Resilience Locally

Photo: UNISDR



Vice-Mayor Al Arquillano in San Francisco, Cebu, enabling community participation through leadership and vision. Here, discussing community-based budgets with a Purok (the community group structure below the village-level Barangays).

Over the past 30 years, the world's population has grown by 87 per cent. The proportion of the population living in flood-prone river basins increased by 114 per cent and on cyclone-exposed coastlines by 192 per cent. More than half of the world's large cities, with populations ranging from 2 to 15 million, are currently located in areas of high risk of seismic activity.

The purpose of this policy brief is to inform local policy makers about the current trends and activities taking place in selected cities that have signed up to the Making Cities Resilient Campaign, which are striving to improve their resilience, and to outline good practices, challenges and solutions to help inform local governments' future actions. The content draws largely on the conclusions from the "Making Cities Resilient Report 2012 – A global

snapshot of how local governments reduce disaster risk", which was commissioned by the United Nations Office for Disaster Risk Reduction (UNISDR) and undertaken by the International Institute for the Environment and Development (IIED)¹. The findings are also based on local government consultations and on the wealth of material that cities involved in the Campaign have self-reported to UNISDR and shared publicly since 2010.

Disasters have their greatest impact at the local level. The sheer scale of the amount of people and assets concentrated in urban areas is both increasing and intensifying the risks to local communities. By 2025, roughly two-thirds of the world's inhabitants and the vast majority of wealth will be concentrated in urban centers. Many

¹ Making Cities Resilient Report, A global snapshot of how local governments reduce disaster risk, 2012, UNISDR and IIED. The review was undertaken by a team from the London-based International Institute for Environment and Development led by Senior Fellow, Dr. David Satterthwaite and Dr. Cassidy Johnson, University College of London. <http://www.unisdr.org/campaign/resilientcities/toolkit/report2012>

of the world's mega-cities, characterized as those with populations exceeding 10 million, are already situated in locations prone to major earthquakes and severe droughts, and along flood-prone coastlines, where the impacts of more extreme climatic events and sea level rise pose a greater risk to disasters. Urbanization happening in relatively smaller cities is also a concern—particularly in regions where existing infrastructure and institutions are ill equipped to cope with disasters.

Though urbanization can lead to a more diversified economy and better living standards, in some cases, development-related activities can exacerbate existing vulnerabilities, or cause new ones. In countries with medium-to low-income levels and with weaker governance, disasters threaten to intensify the poverty gap and erode development efforts in terms of political and social progress, and infrastructure and technological development.²

Against this backdrop, there are two diverging trends relevant to strengthening urban resilience.

The first is one in which competent, sufficiently resourced city and municipal governments work with citizens, businesses, and other stakeholders to reduce disaster risk, both through specific risk reduction policies and investments, and by improving infrastructure and the provision of services. There is much innovation to celebrate here. These policies and measures also help build resilience to climate change. There are also notable successes in cities located in low- and middle-income countries, demonstrating that resilience is not exclusive to high-income nations.

The second trend points to many cases in which national and local governments' attention to disaster risk reduction activities, or to the institutions, infrastructure and services that help build resilience, is failing to keep pace with the rapid rate of urbanization they are witnessing. There are also many cities and smaller urban centers where even the best-oriented disaster risk reduction policies have limited impact due to large deficits in critical social infrastructure and local investment capacity. Consequently, one of the key issues for building urban resilience is how to support and learn from the innovators and leverage significant changes in city-level resilience, even where there are limited resources.

At an international level, efforts to reduce risks from disasters are captured in the Hyogo Framework for

Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (HFA)³, which is endorsed and used as policy guidance by all United Nations 192 Member States, as well as a vast network of international, regional and local organizations. The HFA is guided by Five Priorities of Action aimed at substantially reducing the loss of lives, and protecting social, economic, and environmental assets. UNISDR has the international mandate to monitor and report on countries' progress against the HFA. In 2010, at a time when already half the global population was living in cities, UNISDR launched the Making Cities Resilient Campaign in an effort to 'localize' the objectives and implementation of the HFA.

As policymakers at all levels look toward 2015 and beyond, protecting—and improving—the lives and economic progress of this new generation of urbanites will become a defining theme of disaster risk reduction and sustainable development (see Box 1).

“The challenge facing governments is not always about a lack of money but about understanding how to use most effectively the resources you do have”

Hon Byarugaba Alex Bakuuda, Member of Parliament, Uganda

BOX 1. Why Campaign for Resilient Cities?

Cities participating in the Making Cities Resilient Campaign are taking action to reduce deaths, injuries and the economic impacts of extreme weather, earthquakes and other events, according to the Ten Essentials for Making Cities Resilient checklist (see Annex)⁴. They are motivated by the benefits of these actions, which are multiple:

- Leaving a legacy of leadership to protect people and assets, and building more livable communities, towns and cities;
- Using the basis of resilience and risk awareness as a model for active citizen engagement and a platform for local development;
- Promoting economic growth and job creation by assuring investors of responsible government policies that take action towards compliance to safety standards;
- Participating in a global, inter-connected network of local, national and international expertise and knowledge base and resources.

² Shaping Resilience: Mainstreaming Disaster Risk Reduction into Land Use Planning. Ephrat Yovel; UNISDR, 2012

³ <http://www.unisdr.org/we/coordinate/hfa>

⁴ The Ten Essentials for Making Cities Resilient checklist is the localized version of the Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters (www.unisdr.org/hfa). The checklist is supported by a corresponding set of practical tools and resources aimed at helping local governments identify, assess, and improve their cities' resilience. These include the Handbook for local Government Leaders and the Local HFA Self Assessment Tool.

02 > Key Findings and Trends

Though no city has all the political, technical or financial resources it wants, and no local governments count on 'perfect institutions,' all the cities reviewed for the Making Cities Resilient Report 2012 were able to leverage the resources they did have to strengthen their resilience. In some cases, these resources came in the form of using existing finances more efficiently; in others, they were available thanks to the creativity and vision of their citizens and leaders (see Box 2).

Cities at varying levels of socio-economic development, size and economic bases have demonstrated a common

ability to further strengthen their capacities, commitment and, ultimately, reduce losses – regardless of their baseline conditions. This is the case in cities as apparently different as Pune in India, Kampala in Uganda and San Francisco in California, USA.

Figure 1 illustrates what interviewed city leaders consider as components of successful risk reduction, with three notable findings.

First, there is a heavy concentration of actions related to diverse aspects of Essential 1 of the Ten Essentials – the

Photo: United Nations



An important trend is the extent to which cities are integrating disaster risk reduction into other local government activities, including education, livelihoods, health, environment, and planning, either by incorporating risk considerations into existing activities or initiating projects that address multiple issues simultaneously. In Quezon City, Philippines, training in rapid response, rescue and basic life support takes place in schools, hospitals, shopping malls, hotels and community centres. In Bhubaneswar, India 3,000 students in 35 schools and 600 college students have been trained in disaster management planning and safety. Quito's 'my school is prepared' programme includes training, contingency planning and emergency drills.

administrative and institutional framework for resilience – including the development of a dedicated body, and a political commitment to disaster risk reduction.

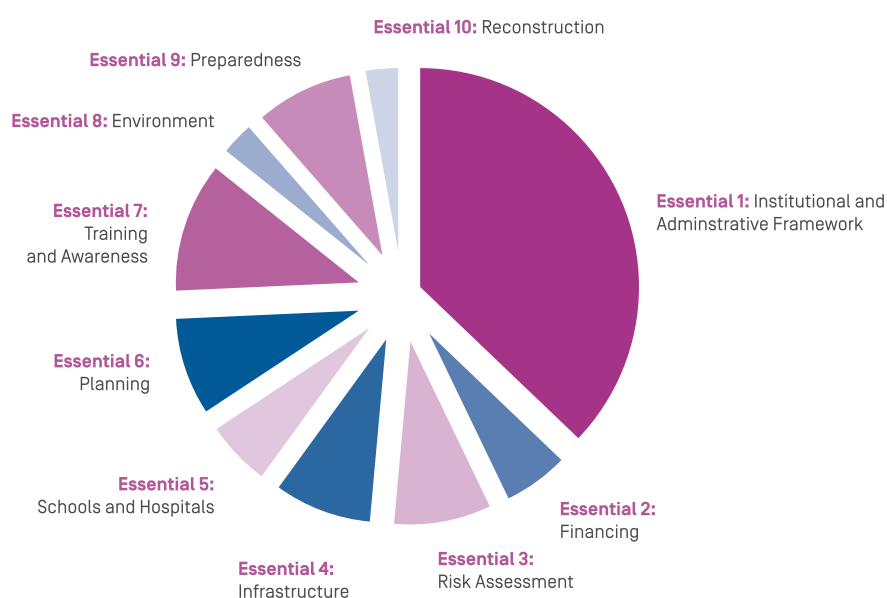
Second, projects that address specific risks, including improving infrastructure to control floods, retrofitting buildings, or the construction of safe schools, were cited as the next most important component of resilience building, based on the specific risks facing the respondents' cities.

Third, the risk reduction priorities of local governments are context-specific, pointing to the fact that resilience indicators must be locally developed, based on the city's own risks and its current governance systems. These findings and trends hold many implications for policymakers.

BOX 2. Five types of disaster risk reduction activities occurring most frequently in cities:

- Taking disaster risk reduction into account in new urban planning regulations, plans and development activities.
- Establishing councils/committees/disaster management structures dedicated to disaster risk reduction.
- Constructing hazard-resistant infrastructure or improving existing facilities.
- Establishing education/awareness/training programs.
- Organizing multi-stakeholder dialogues.

Figure 1: What cities interviewed indicate as components of successful risk reduction in their city



03 > Implications for Policymakers

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Venice's rich cultural heritage, residents, and tourism industry, face risks of flooding and sea level rise.

There is a mounting recognition among policymakers at all levels that disaster risk reduction, climate change adaptation, and sustainable development are inextricably linked. These issues present mutually dependent challenges, which require collaborative, integrated strategies, strong, inclusive governance structures, sound urban planning practices, and innovative technological and financial solutions. Because economic growth and risk accumulation follow the same path, as cities' populations and economies expand, local governments will play an increasingly important role in confronting the challenges arising from more frequent, localized extreme events, which can negatively impact the social, environmental, and financial infrastructure and institutions on which urban lives and livelihoods depend.

First and foremost, local leaders must have the political will to improve disaster resilience. Particularly where substantial changes to the status quo are necessary, political will has proved vital in terms of introducing new and progressive risk reduction practices and policies (see Box 3: Key enabling factors for resilience).

At the same time, because a high turnover in leadership is often the chief barrier to sustaining urban risk reduction programs, local policymakers must promote a culture of resilience from the bottom up. This starts with a willingness to engage communities, grassroots organizations, businesses, and other partners, as well as participate in knowledge-sharing platforms and exchanges with other local leaders (see Box 4).

BOX 4. City-to-City Sharing Initiative - Makati City, Quito and Kathmandu

Based on the objectives of the Ten Essentials for Making Cities Resilient, local government representatives from all three cities participated in a series of exchanges to share good practices and experience in managing and reducing urban risk through improved land use planning, emergency management, and heightened public awareness. Kathmandu and Quito used Makati City's approach to emergency management systems and community-based disaster management to benchmark their own plans in these areas, while Makati learned from Kathmandu's experience with private sector organizations on disaster risk management and public awareness campaigns. City representatives also shared preservation and rehabilitation strategies to protect their cultural heritage. Under the programme, supported by the Global Facility for Disaster Reduction and Recovery, the participating cities also act as international and regional resource centers with other cities in their respective countries and regions. CityNet recognized their achievements and the cities were presented with a City-to-City Cooperation award in July 2012.

Local policymakers must also empower a city's technical and professional staff to build municipal capacity and ensure the continuity and fulfillment of risk reduction initiatives, long after elected leaders have moved on.

By virtue of proximity, local policymakers have the power to greatly influence citizens' decisions and accountability. This can lead to a more efficient, equitable, and coordinated approach to disaster management, which can simultaneously support other urban agendas, including social and economic development, safety and security, resource management, and environmental protection. For instance, improving citywide storm and surface drainage systems to cope with extreme rainfall can provide opportunities for recycling of water, parks, or community services. Likewise, building stock and other infrastructure that are designed to withstand high winds or seismic activity can be designed to enhance energy efficiency and tap into green growth opportunities.

BOX 3. Key enabling factors for resilience:

- Leadership and political will
- Sustaining government and stakeholder engagement for resilience and risk reduction
- City-to-city learning and international support
- Integrating disaster risk reduction across sectors
- Addressing existing infrastructure deficits

In Barcelona, Spain, a citywide resilience board brought together 37 institutions that included partly private utilities and regional government representatives to manage coordinated and collective responses to disaster risk.

Other actions that can help to develop policies and promote a risk reduction and resilience agenda include:

- Adopt a resolution to make your city a "Resilient City", and commit to pursuing actions outlined in the Ten Essentials checklist;
- Conduct risk-assessments and integrate the outcomes into a Strategic Action Plan that takes into account urban expansion, regeneration, informal settlements, and new business opportunities;
- Raise awareness and use knowledge, both scientific and local, in the development and execution of disaster management plans;
- Test the effectiveness of existing emergency and contingency plans, and put in place early warning systems;
- Establish local disaster management councils, committees, or other groups to engage multiple actors and;
- Strengthen the ownership of a resilience agenda among community groups, private sector and other stakeholders.

Photo: UNISDR



The population of the city of Mashhad, a megacity and the second largest in Iran, is expected to double in the next 10 years. As a Campaign Role Model City with innovative urban regeneration projects that embrace high seismic standards, Mashhad has created the capacity to support other municipalities in Khorasane Razavi Province (and other megacities in Iran) to develop standards, disseminate experience, and host training and drills on disaster risk reduction.

04 > Resilience is Everyone's Business

Photo: UNISDR



Community leaders in the Sichuan Region, contributing to future resilience.

Achieving resilience objectives requires the cooperation of all actors (politicians, community and youth groups, civil society, academia, businesses, and others) that make a city function on a daily basis. When local leaders involve citizens in the decision-making process, democratic governance is strengthened, leading to policies that more accurately reflect the needs of people and are thus more accepted. This can prove to be the key to the effectiveness and sustainability of a city's resilience plans, and can often stimulate progress despite limited resources. An inclusive, participatory approach to policymaking can also help to ensure that sustainable benefits are shared among all communities, including the most vulnerable, to not only increase their capacity to absorb shocks and protect development gains, but also to provide new economic opportunities (see Box 5).

Engaging with multiple stakeholders can also help local governments identify innovative solutions they might have otherwise overlooked. Innovation, whether locally generated or shared from afar, remains an essential instrument in overcoming the challenges to building and sustaining urban resilience. For example, citizens' groups in risk-prone areas may share 'homegrown' early-warning signs that were previously unknown or underutilized, and contribute to the assessment and documentation of the localized impacts of natural hazards, which will ultimately help governments at all levels make more informed decisions and investments. Similarly, local governments can benefit by engaging with youth and student groups. In times of crises, young people can help coordinate community responses and complement municipal

efforts; they are also a largely untapped knowledge base that can contribute to longer-term resilience efforts. Local governments must also coordinate with National authorities, and vice versa, to apply and adapt national-level policies to local conditions.

BOX 5. Building resilience through partnerships in Cape Town

Since the establishment of a democratic government in South Africa in 1994, national and local governments have sought to address the legacy of apartheid that included a lack of critical risk reduction in infrastructure, particularly in previously non-white areas and informal settlements. In line with national policy, the project recognises that poorer sectors of society experience disproportionate risk, and thus focuses on improving living and safety conditions in densely populated informal settlements. The project involves partnering with communities who create steering committees to identify community assets and challenges. These committees survey an average of 10 per cent of the community and the results feed into a Community Action Plan to improve basic infrastructure, expand roadways to allow access for emergency vehicles, and improve access to water and sanitation. They have also constructed educational day care centres for children, run in conjunction with the Department of Education. These examples illustrate the value of cross-sector and cross-scale partnerships in building resilience. They also highlight the potential of a mainstreamed approach to risk reduction in addressing multiple challenges simultaneously, and the importance of government leadership in facilitating relationships between stakeholders.

In the Philippines, the 2010 National Disaster Risk Reduction and Management Act requires local governments to allocate 5 per cent of their total revenues to disaster risk response with a priority on preparedness.

THE PRIVATE SECTOR'S ROLE IN BUILDING URBAN RESILIENCE

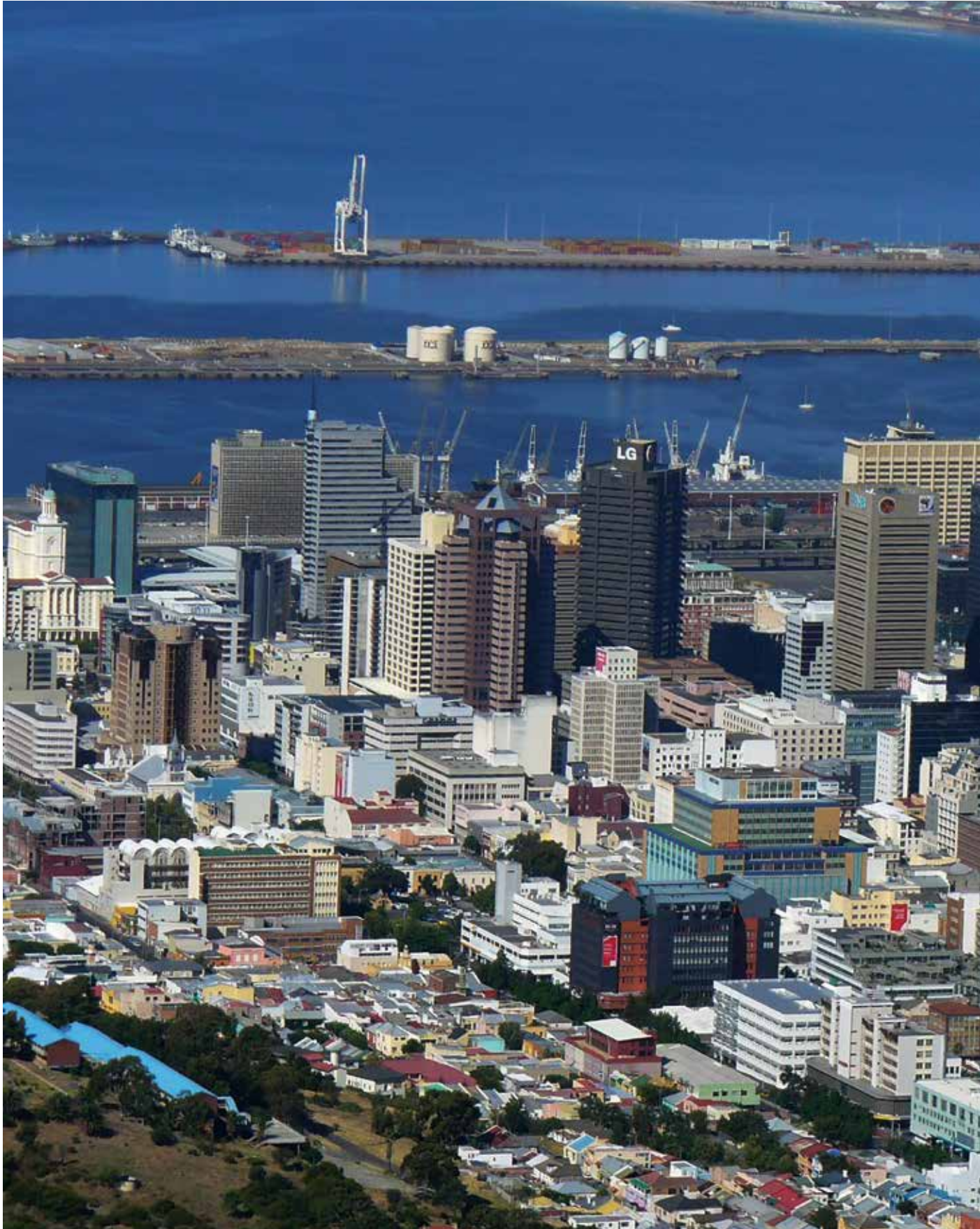
Given that the costs of disasters are rising and becoming increasingly unaffordable, there is now an economic imperative to share the financial investments needed to strengthen a city's resilience. As the primary generator of wealth and the main employer in most cities, the private sector should be at the centre of the urban resilience agenda. Earthquakes, floods, drought and other events can severely disrupt the critical systems, distribution networks and infrastructure that are vital to a company's operations, and which can cause significant, long-term financial and reputational impacts. Large-scale events can also interfere with shorter-term market dynamics, artificially depressing or inflating stock prices and disrupting global supplying chains. On average, large businesses with robust risk management programs realise catastrophe losses that are seven times less costly than those companies with immature risk programs – an average of US\$478,000 per loss compared with US\$3.4 million. The specialized knowledge offered by private enterprises can also offer local governments advice, expertise, and technical support. As the private sector is responsible for up to 85% of all global investments in new buildings, industry, and small-to-medium sized enterprises, private companies can help also help to ensure new urban housing and commercial developments are built to safer standards and reflect the needs of all citizens.

*According to the 2013 Global
Assessment Report (GAR),
so far this century, direct losses
from disasters are in the range
of USD\$2.5 trillion.*

Examples of public-private partnerships at local level

Among the Campaign cities forging successful relationships with business are Cape Town; Makassar, Indonesia; and Makati City, Philippines, all of which report the use of private sector Corporate Social Responsibility funds for risk reduction and post-disaster recovery. Chacao, Venezuela recognizes the private sector as a key stakeholder for resilience building and has a risk management network of 33 companies, which are encouraged to prioritise self-protection, take ownership of the risks they face and take action. The Province of Tyrol in Austria has established a risk management system through a partnership with the alpS Centre for Climate Change Adaptation Technologies. This allowed an area-wide risk assessment to be carried out with direct links between this research centre and the risk management process. AlpS also provides support to municipalities for their local disaster risk reduction activities and connects them to relevant national and international partners.

Photo: United Nations



Cape Town is a Campaign Role Model in recognition of its innovative approach to informal settlement upgrading and ecosystem protection. Its Community Action Plan defines short-term interventions (such as clearing storm water drains and social interventions), medium-term interventions (such as simple infrastructure) and long-term visions on how to transform and integrate informal settlements.



05 > The Role of Urban Planning in DRR and Resilience



Investment in risk reduction generally saves in terms of avoided losses and reconstruction costs. Involving civil society and local government in land use planning, as illustrated here in Guatemala, contributes to the building of social capital, raises awareness of risk and strengthens local capacities to address a wider range of development issues. Photo: UNISDR

Population growth combined with an increase in the number of people living in hazard-prone areas will, over time, also increase exposure and risks to lives and livelihoods. The threat is not limited to large-scale events. Combined, poor urban planning, environmental degradation, rural-urban migration, poverty, and other factors mean that the cumulative impacts of re-current small-scale, 'localized' events can be equivalent to those of a larger disaster.

Urban planning and design has a key role to play in defining the resilience of a city or urban area. While the planning process and design requires vision, participation, appropriate knowledge and information on current and future risks, the implementation and capacities to provide for safe land and basic services to all urban dwellers requires political leadership backed up by strong policy decisions and investments. This is one of today's major challenges in rapid urbanizing contexts such as in Africa, Asia and Latin America.

Many cities participating in the Campaign report being at a critical juncture, where existing land-use regulations and building codes – where they do exist – are proving

insufficient to keep pace with population growth. Likewise, core urban infrastructure and systems are straining under the weight of mounting demand, and flagging concerns over safety, environmental degradation, poverty, and social unrest.

In most cities, there is now an urgent need to upgrade and retrofit existing building stock and review, or implement anew, building codes and planning regulations. Ageing building stock is a problem in most cities at all development stages and is often cited by Campaign cities as a major risk

factor. At the same time, local governments are mindful that land needed to accommodate new housing and businesses, while necessary to support economic growth, is competing with the need to preserve natural spaces and protect vital ecosystem services. This challenge is even more pronounced in many of the world's fastest urbanizing centers, which also tend to be the most vulnerable to disasters. In cities such as Dar es Salaam, Tanzania, where 70% of

the population live in slums, rapidly growing unplanned settlements are encroaching upon green spaces and destroying natural defenses against floods and other

The official declaration of commitment to the Campaign by Baofeng, China in 2010 has led to the creation of a disaster coordination framework, with an assigned budget for disaster risk reduction, and maintaining up-to-date information on potential risks, and investments in critical infrastructure.

hazards. In addition, these cities face daily struggles to meet basic urban infrastructure needs, such as clean piped water, drainage systems and waste management. This is often their greatest challenge and can mean that disaster risk reduction takes a back seat to development activities. In Narok and Kisumu, Kenya and Moshi, Tanzania, for example, the municipalities' limited capacity for coordination means that disaster risk reduction remains a low priority due to competing issues that also require attention. For these cities, risk reduction is predominantly about developing basic infrastructure that can help to reduce risks posed from hazards and improve health¹.

Sound urban planning practices and design can dually serve resilience and development efforts. Infrastructure that is fit-for-purpose and well maintained contributes to disaster risk reduction and is central to the smooth functioning of a city, its economy and people's well being. Likewise, factoring disaster risk into land-use planning procedures can reduce exposure to natural hazards, and protect educational and health facilities, while introducing measures such as risk screening into building planning and design, can save lives and extend the longevity of critical infrastructure.

But the potential value of resilient development, in both public and private sector, is unlikely to be realized without the full engagement of development planners and their instruments. Equally, these plans must be backed up with stringent and enforceable building standards and regulations. As outlined in Essential Six, it is important to apply and enforce realistic and risk compliant codes that can also meet the needs of low-income citizens and guide upgrading of informal settlements.

Where national policies lag behind, local commitment to improved planning and targeted engagement with the private sector and other development partners can provide a powerful stimulus.

The Hyogo Framework for Action and the Making Cities Resilient Campaign stress the importance of urban planning in addressing hazard risk and highlight the challenges that urban planning faces when confronted with disaster risks. These include:

- Making safe land available for building;
- Addressing infrastructure deficits;
- Developing and implementing equitable regulations for building and planning;
- Linking urban planning to post-disaster recovery.

How urban planning can contribute to resilience and disaster risk reduction

- Working with multiple stakeholders throughout the planning process to identify known risks, needs and potential solutions, realizing the potential of communities to contribute to risk reduction.
- Incorporating risk assessment – considering exposure, vulnerability and hazards, urban settlements development and services- in all urban development designs, projects and programs.
- Making safe land available for urban development, avoiding construction in disaster-prone areas, leaving buffers and providing recreational areas.
- Ensuring that public space for streets, infrastructure and parks is identified and protected.
- Upgrading informal settlements, with attention to access roads, flood-risk, other safety measures.
- Installing risk-reducing infrastructure, including drainage and sewerage systems.
- Assessing how urban development contributes to improving the lives of the poorest or most vulnerable people in a city.
- Developing good information on risk and communicating risk information widely.
- Protecting ecosystems to allow proper storm water drainage avoid extensive erosion and protect against storms and tidal waves.

¹ City Resilience in Africa: A Ten Essentials Pilot, UNISDR 2012.

Building DRR into post-disaster reconstruction

In Santa Tecla, El Salvador, a 7.5 magnitude earthquake in 2001 claimed 720 victims, triggering a high level of community participation in public debates about the direction of risk reduction and urban development in the municipality. Santa Tecla's Mayor, Oscar Ortiz (a Champion of the 'Making Cities Resilient' Campaign), took a strong leadership role in the response and recovery work with wide participation of local stakeholders. Taking the opportunity to strengthen the city's normative frameworks, risk reduction plans and policies, he organised reconstruction committees that included the participation of the private sector, churches, NGOs and the local government. An action plan was tailored to the population's needs and a community debate – Santa Tecla for the Future – revolved around reconstruction and other opportunities to create a city in line with sustainable development goals.

Several Campaign cities view urban planning as a tool for risk reduction and a key component of resilience.

Firstly, urban planning enables towns and cities to be analyzed and planned as a system comprised of various sectors and institutions. This is crucial in coping with interdependencies among failures in infrastructure in disaster situations. Urban planning also contributes to preventing secondary disasters and delays in the rehabilitation and recovery process. Disaster risk assessment, preparedness and planning for recovery, with multiple stakeholders involved in urban management before a disaster, is one potential solution that can contribute to foreseeing multiple systems failures as well as avoiding sectorisation of recovery planning after disasters.

Secondly, the planning exercise can reinforce stakeholder relationships, institutional frameworks and partnerships among all urban stakeholders, particularly planners architects, engineers, disaster and risk reduction management specialists, sectoral specialists, private sector, and communities to address risk reduction and resilience in a holistic manner.

“Santa Tecla will never be the same, it will be better.” This conviction gave the community the will and power to move forward with risk reduction policies. The Mayor has been re-elected every time since then.

Mayor Oscar Ortiz, Santa Tecla, El Salvador

06 > The Making Cities Resilient Campaign: A Vehicle for Local Level DRR

Since its launch in 2010, the Making Cities Resilient Campaign has acted as a vehicle for local governments to give more attention to disaster risk reduction and to develop partnerships with key stakeholders, including civil society, the private sector and academics. At the time of publication, more than 1,400 local governments had signed up to the Campaign and the Ten Essentials for Making Cities Resilient. This has served to raise municipal governments' political commitment to act locally, increase knowledge, invest smarter, and build safer.

The creation of a movement among various stakeholders on the importance of local level DRR action has created two specific outcomes. First is a "network" of interested individuals from local government, which form the social capital of the movement. These are network members who are interested to know more and are willing to participate and contribute. Second is a small group of dedicated champions, role models, advocates and key partners, who form the core group of the human capital of the movement. These individuals and organizations have the technical expertise and the willingness and/or the resources to share this expertise with others. The totality of this movement creates the basis, and can serve as a staging point, for accelerated local level DRR actions.

The development of de facto standards for practice captured in the Ten Essentials and its supporting tools and guidance form the structural capital of the movement. The straightforward simplicity of the Ten Essentials is a key strength of the Campaign. These guidelines, which are supported by practical tools to implement concrete actions, provide local leaders with a strategic framework to prioritize areas and approaches to disaster risk reduction and to chart progress.

For many cities, signing on to the global Making Cities Resilient Campaign and committing to the disaster risk reduction principles outlined in the Ten Essentials checklist demonstrates a strong sign of political will.

The Campaign is also a powerful local recruiting tool, having brought disaster risk to the attention of a wide range of stakeholders from a cross-section of legislative scales and sectors. Since its launch, the Campaign has worked with several organizations, including UNISDR, CityNet, ICLEI-Local Governments for Sustainability, UN-Habitat, and the World Bank Global Facility for Disaster Reduction and Recovery, to promote and facilitate city-to-city learning

exchanges and connect local governments and municipal staff with technical experts, private sector, and other stakeholders, to design and implement resilience plans.

The association with an UN-affiliated global Campaign gives local authorities at all levels a sense of empowerment, which, more often, is translating into tangible actions and policies. For municipalities that had not previously addressed disaster risks, the Campaign has proved an effective catalyst to promote collaboration among neighboring municipalities. The Campaign has also encouraged engagement in a participatory strategic planning process that incorporates risk analysis and reduction. In other cities, local governments cited their affiliation to the Campaign as a trigger to mobilize local resources and partnerships between municipalities and key stakeholders, including civil society, academia, and the private sector. The Campaign has also provided a platform to advocate for local governments' needs to be reflected in National and international disaster risk reduction policies and investment decisions. Many city governments also found support from international agencies for risk reduction after committing to the Campaign.

The next phase of the Campaign will concentrate on collecting, analyzing, and acting on feedback based on the use of the Ten Essentials checklist and supporting toolkit to further improve DRR action at the local level.

07 > Building Resilience Locally – A Vision for the Future

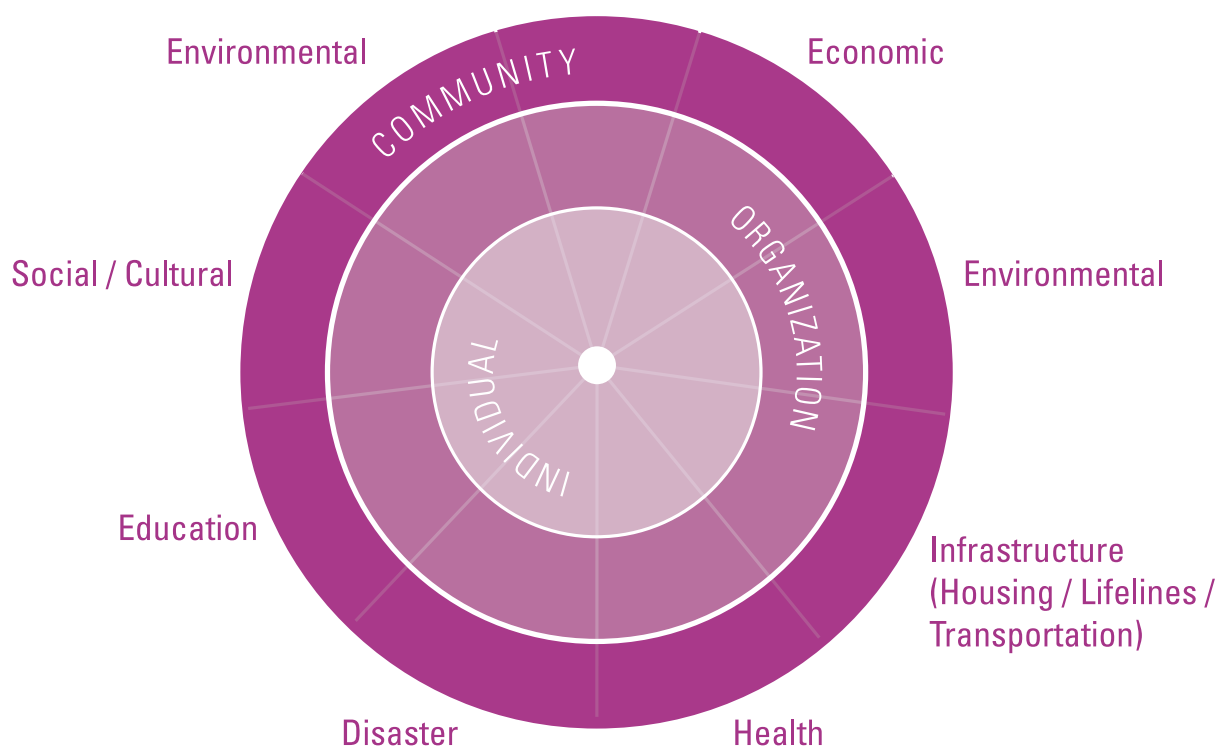
The achievements of Campaign cities offer a rich and diverse set of interventions from which all local governments can learn. The focus on urban disaster risk has helped raise awareness of localized disasters that have devastating impacts on communities, especially poor households, and constitute a persistent drain on national and local budgets. For those at earlier stages of resilience building, the creation of a new committee or working group is often the first step. In many cases, this leads to risk assessments. In some cases, there is a widening mandate for emergency preparedness and response to include disaster risk reduction and climate change adaptation. This can be made more effective if National and regional governments support city level capacities – as in new legislation in the Philippines and South Africa. Cities such as San Francisco, California, whose resilience efforts are at more advanced stages, are assigning a budget for disaster risk reduction and providing incentives for home-

owners, low-income families, communities, businesses and the public sector. These “Role Model” cities act as resilience ambassadors and mentors to other cities within the Campaign, often participating in city-to-city learning exchanges and sharing their knowledge and expertise through various forums.

But while the disaster risk reduction initiatives undertaken by many Campaign cities to date are laudable, few have systematically leveraged the instruments of development. Inclusive local action, built on partnerships between National and local governments, communities, private sector and other partners is critical to the successful implementation of the post-2015 disaster risk reduction and development frameworks.

The 2009-2011 mid-term review of progress against the HFA highlighted that weak capacity in many local

The Resilience Wheel - San Francisco, California



governments means that even where countries have developed policies and institutional systems for disaster risk reduction, they are challenged to address risk accumulation on the ground. This consequently challenges governments' ability to accurately account for disaster risk in investment and development decisions. Further, countries reporting to the most recent HFA Monitor in 2011, including those with dedicated DRR policies and budgets, acknowledged there is insufficient support provided to local governments to build urban and community level capacities.

As local governments look toward the post-2015 disaster risk reduction and development frameworks that are currently being defined, they will seek the following actions:

Raise Awareness: Promote integration of local level disaster risk reduction into National and international sustainable development and climate change adaptation policies and extend the next global framework over a longer timeframe (e.g. 20-30 years).

Bottom-up approach: Ensure that future frameworks clearly underwrite the need for local governments to be involved in DRR and have responsibilities; decentralize disaster risk reduction policies and resources. Ensure the equitable participation of women's organizations, youth, indigenous people and commonly excluded communities in the formulation of DRR strategies.

Top-down approach: Ensure national directives inform local governments of international and national agreements and empower local governments to act, and involve cities/local governments in reporting and planning.

Know more and build capacities: Increase capacities locally to accelerate implementation of plans and policies, and empower local governments with the tools and knowledge resources they need.

Make DRR a core function: Ensure that disaster risk reduction and management becomes a core function of the city administration, with dedicated budget allocation and staffing.


UNISDR will continue to advocate with its partners for the improved recognition and empowerment of local governments to fulfill these objectives, and serve as a platform to facilitate local and National level partnerships in the common pursuit of social, economic, and environmental resilience.



The Ten Essentials for Making Cities Resilient Checklist

1. Put in place **organisation 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.
2. **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.
3. 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.
4. Invest in and maintain **critical infrastructure that reduces risk**, such as flood drainage, adjusted where needed to cope with climate change.
5. Assess the safety of all schools and health facilities and upgrade these as necessary.
6. Apply and enforce **realistic, risk compliant building regulations and land use planning** principles. Identify safe land for low income citizens and upgrade informal settlements, wherever feasible.
7. Ensure that **education programmes and training** on disaster risk reduction are in place in schools and local communities.
8. **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.
9. Install **early warning systems and emergency management capacities** in your city and hold regular public preparedness drills.
10. After any disaster, ensure that the **needs of the affected population are placed at the centre of reconstruction**, with support for them and their community organisations to design and help implement responses, including rebuilding homes and livelihoods.

Further suggested reading:

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- How to Make Cities More Resilient- A Handbook for Local Government Leaders, UNISDR 2012
 - Making Cities Resilient Report 2012: A global snapshot of how local governments reduce disaster risk, IIED and UNISDR 2012
 - UNISDR Local HFA Government Self Assessment Tool (LGSAT) - Provides key questions and measurements against the Ten Essentials for Making Cities Resilient and builds upon the priorities and national indicators of the Hyogo Framework for Action. To download the Tool, visit <http://www.unisdr.org/campaign/resilientcities/toolkit/howto>
 - International Journal of Disaster Resilience in the Built Environment - Special issue: Making cities resilient, University of Salford, 2012. <http://www.preventionweb.net/english/professional/publications/v.php?id=31515>
 - Resilient Cities Webinars, UNISDR, University College London, and CIB, 2012, <http://www.unisdr.org/campaign/resilientcities/webinar>
 - City Resilience in Africa: A Ten Essentials Pilot, UNISDR 2012. The publication reports on the outcomes of a pilot project to 'operationalize' the Making Cities Resilient Campaign in three cities in Africa – Narok and Kisumu in Kenya and Moshi in Tanzania, commenced in 2012 by the UNISDR regional office for Africa in Nairobi, Kenya. It also describes disaster prevention activities undertaken by pilot cities, and provides assessment and analysis of city resilience according to the Ten Essentials for Making Cities Resilient. <http://www.unisdr.org/we/inform/publications/29935>
 - Financing the Resilient City, ICLEI Local Governments for Sustainability, with support from BMZ, 2011. The White Paper discusses the benefits of a bottom-up and comprehensive resilience investment approach to development, disaster risk reduction and climate adaptation. <http://www.iclei.org>
 - Making Cities Resilient Campaign website, www.unisdr.org/campaign/resilientcities

