

PART I
**UNDERSTANDING URBAN
SAFETY AND SECURITY**

This Global Report on Human Settlements examines some of today's major threats to urban safety and security within the broader frame of rapid urban growth, uneven socio-economic development and the quest for human security.¹ It seeks to review the growing concern about the safety and security of people, rather than states, linking this to the risks and opportunities that accompany increasing social and economic complexity, which is itself a result of growth and development.

In the last decade or so, the world has witnessed increasing numbers of threats to urban safety and security. While some of these threats have taken the form of dramatic events, many have been manifestations of the nexus of urban poverty and inequality with the physical, economic, social and institutional conditions of slums. Urban crime and violence in countries in all regions, regardless of level of development, have led to increasing debate about how to address its origins and impacts. Gang violence in Brazil, Guatemala, Honduras, South Africa and Kenya has affected many people. Dramatic violence in Paris and throughout urban France has demonstrated that such violence could also occur in cities in high-income countries with large disparities in income and opportunity. Many households have faced the threat of insecure tenure and the likelihood of forced evictions. These problems have been evident in cities in Nigeria, Turkey and Zimbabwe, with the case of Harare receiving the most global attention during the last three years. There have also been dramatic impacts of so-called natural disasters, with significant global attention being focused on the Indian Ocean Tsunami affecting Indonesia, Sri Lanka, Thailand and India; monsoon flooding in Mumbai; Hurricane Katrina in New Orleans, US; and earthquakes in Pakistan and Java, Indonesia.

While these 'events' receive media coverage, they are, in fact, symptomatic of deeper and more pervasive processes that affect these cities. While crime and violence are, perhaps, the most obvious of these processes, insecurity of tenure and disasters are also the results of deeper processes and institutional failure. This report seeks to describe these phenomena, to provide a framework for analysis of their causes and impacts, and to suggest a set of recommendations for policy and action that can help to reduce urban insecurity and increase safety.

Growing numbers of urban residents living at increasing densities in horizontal and vertical space necessarily increase opportunities for productive employment and social interaction; but in some situations, particularly in slums,

they also increase vulnerability to the harmful consequences of development. In rapidly growing cities, more people need food, housing, water supply, sanitation and employment to generate incomes to buy basic services. This demand, in turn, generates many opportunities for productive, as well as criminal, responses to ever more stimulating and demanding social environments. With opportunities, however, come risks. The social imperative for urban residents to adjust to urban life brings many forms of disequilibria, shortages and, necessarily, differences between the abilities of individuals and households to satisfy their needs and ambitions. Inequalities in opportunities lead to differences in outcomes, perspectives and willingness to live within rules that may appear (particularly for growing numbers of the urban poor) manifestly unjust.

This process of urban social and economic differentiation interacts closely with the physical location and ecological features of cities: their geography, landscape, natural environment and access to specific natural resources, particularly water. Cities historically developed near sources of water supply and water for transport or energy, such as Manchester and Chicago, or on coasts with harbours and colonial *entrepôts*.² Cities sit on an ecological edge, between solid ground and watersheds. Over time, these historical origins also brought risks such as periodic flooding. Now, there is growing global public awareness that nature itself is no longer inherently stable, but is, rather, at any one time, an outcome of dynamic forces such as climate change or other human-induced pollution or disruption. The physical sites of cities, whether Mumbai or New Orleans, are recognized as dynamic landscapes that can no longer be assumed as benign or as given. The individual circumstances of particular cities fit into a global pattern where 70 per cent of the world's population lives within 80 kilometres of the coast. Land and ocean are thus brought closer together, increasing human vulnerability to the environmental hazards associated with rising sea level.

Within this broader ecological context, cities have always been spaces where many individuals and households have been successful in generating incomes and opportunities for themselves and their families. The differentials between urban and rural incomes explain most of rural to urban migration over the past 50 years. Not surprisingly, successful individuals and households tend to protect their interests in maintaining these prerogatives in the face of the many who have not. History has shown that private interests have public consequences, largely expressed through politics

and the resulting public policies and the behaviours of public institutions. If the purpose of government is to provide a set of rules within which individual liberty and private interests can be balanced with the social objectives of enhancing public welfare and equity, it is apparent that the institutional performance of government has frequently been disappointing. What were previously described as growing urban inequalities and differences have now become intergenerational forms of exclusion.

While it is not surprising that urban policies reflect interests, the degree of difference in welfare and opportunities within cities at this time is a matter of growing concern, even at the macro-economic level. Fifty years of efforts by countries and the international community to improve human welfare since the beginning of the United Nations Development Decade of the 1960s have resulted in major improvements in longevity, infant mortality, literacy and income levels in most countries. However, the growing urbanization of poverty, particularly in developing countries, has created a paradox where cities are both the engines of growth in national economies, but also significant loci of poverty and deprivation. If the worst levels of absolute poverty have been somewhat alleviated in some regions, there has been growing evidence of relative poverty or inequality in most countries, particularly in cities. Inequality has become increasingly recognized as an important inhibiting factor to economic growth.³ It is a significant underlying factor in understanding the mechanisms and processes generating urban insecurity in cities such as São Paulo, Nairobi or Paris. At a more general level, poverty is perhaps the most notable factor in explaining the levels of vulnerability to the urban safety and security threats examined in this Global Report.

The level of urban inequality is not solely the responsibility of national or local governments, but rather is also a result of the interaction of global economic forces and national economies. The mobility of capital, labour and technology has resulted in massive deindustrialization in some countries and the relocation of employment opportunities to other countries where labour costs are lower or factors affecting profitability are more favourable. Debates continue about the costs and benefits of 'free trade', and whether rich countries actually followed the free trade policies they now espouse.⁴ But the fact remains that many businesses have voted with their feet, with some relocating, for example, from cities in the US to maquiladoras in northern Mexico, and then later leaving for China in pursuit of lower labour costs and less costly environmental regulations. These global shifts have generated additional uncertainty and insecurity in the lives of many urban income earners. Reduced opportunities for formal employment have also resulted in higher degrees of informality in economies and less application of rules and regulations.

The nature of economic growth itself has therefore changed. Countries which initiated their economic and social transformations during the 1960s on the basis of agriculture and the export of primary commodities have been subject to sharp fluctuations in global commodity prices. The volatility of global markets and, particularly,

energy prices has direct impacts on the costs of inputs, prices and market share of local enterprises. Producers of textiles and machinery in many countries have closed down in the face of the higher productivity and lower costs of their Chinese competitors.

There has also been a shift in the definition of wealth during the last 50 years, away from commodities towards information, knowledge, technology and finance. This is a global phenomenon with local consequences. In the midst of the Argentine economic collapse of 2001 to 2002, a Swedish newspaper noted that Argentina had held on to a 19th-century definition of wealth, focused on agricultural commodities and livestock, and had not adjusted to the global economic dynamics of the 21st century.⁵ Entering the global markets and building capacity in knowledge-intensive industries is not a short-term venture. It is further complicated by the fact that each of these factors of production is also not evenly distributed across the world; in fact, each is marked by a high degree of centralization and localization in specific countries and cities. Indeed, these patterns of centralization of finance, technology and information are congruent and self-reinforcing. Patterns of income and wealth, therefore, in the 21st century have accentuated the economic vulnerability of developing countries and their populations.

One important consequence of these global forces has been the relative weakening of national and local institutional capacities through the changing distribution of power and authority of public institutions. This has occurred partly through privatization of public services such as water supply, transport, electricity, prison management and many others. In many countries, this has taken place within an overall shrinking of the public sector, mainly on fiscal and institutional grounds. At a time when urban populations are growing and uncertainties have increased, the capacities of these governments to solve specific problems, ensure the security of their populations and control their jurisdictions is considerably less than in previous times in some countries. This reduced capacity of the public sector also contributes significantly to a sense of urban insecurity. It is remarkable that as the process of urbanization continues to grow in scale and importance, the world recognizes few cities in either rich or poor countries as truly replicable examples of 'good practice'.

Within this global and macro-context, this report examines three specific threats to urban safety and security that have become increasingly serious during recent years: crime and violence, insecurity of tenure and evictions, and natural and human-made disasters. While these three phenomena do not account for all of the problems of security and safety facing urban populations, they represent an important share of the public concerns that have been addressed by researchers and practitioners in the human settlements field. When considered within the context introduced above, these threats should not be regarded as 'events', but rather as 'processes' that are tied to underlying social and economic conditions within cities and countries. This rooting in local socio-economic realities is helpful in both understanding them and also finding

measures that can help to alleviate their worst consequences.

Threats to urban safety and security are also popularly understood by ‘conventional wisdom’ in ways that do not readily lead to solutions or assignment of responsibility for them. Upon greater examination, however, these forms of conventional wisdom do not stand up as accurate descriptions of the problems at hand. Natural and human-made disasters are frequently regarded as unpredictable, yet, closer analysis demonstrates that their probabilities are within reasonably tight bounds in time and place – for example, monsoons and hurricanes occur within certain months in specific regions of the world. As such, they are amenable to policy and technical responses that can alleviate their impacts. An analogous approach applies to crime and violence, which tends to occur in specific sites, either directed at persons or property, with a set of motivations that are predictable within individual urban cultures (i.e. to steal property to buy drugs in some cities or to define gang territories in others). Crime and violence are not random; as such, they can be studied in order to address underlying causal factors, as well as through direct measures to confront them. For example, some cities are already known as safe, while others seem to have cultivated ‘cultures of fear’, frequently with a major role played by the local media. Yet other cities have become ‘safer’ over the years from crime and violence. It is possible to examine why and how and to use this knowledge to design measures to reduce insecurity. The problem of squatting and evictions is similarly predictable. Indeed, evidence from cities in all countries demonstrates similar behaviour patterns by squatters seeking to reduce the insecurity of their lives, as well as by

public-sector authorities seeking to impose order over a rapid and apparently chaotic urbanization process.

This Global Report, therefore, examines these forms of ‘conventional wisdom’ in some detail to illustrate that the challenges of reducing urban insecurity are not solely ‘technical’, but rather have much to do with perceptions and popular understanding, as well. In this regard, the report explores the mapping of risk, its predictability and the types of vulnerability that may result. It discusses alternative pathways to resilience: how combinations of institutional behaviour, international legal frameworks such as human rights law, and active recognition of the role of civil society and local cultures can play important functions in anticipating risk and mitigating its negative consequences. By providing a strong description and analysis of these threats to urban safety and security, along with specific recommendations for policy and institutions, the report is intended to contribute to global public awareness of these important issues.

Part I of the report introduces the issues to be discussed and it is divided into two chapters. Chapter 1 frames the problem of urban safety and insecurity within the overall context of human security, and highlights the main problems posed by crime and violence, tenure insecurity and evictions, as well as disasters triggered by natural and human-made hazards. Chapter 2 provides a conceptual analytical framework for the report, which is based on the related ideas of vulnerability and resilience. The ways in which vulnerability and resilience – at the international, national, local, community and household levels – influence urban safety and security are also highlighted.

NOTES

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| 1 | Commission on Human Security, 2003. | 3 | World Bank, 2005. |
| 2 | See Harold Platt, 2005. | 4 | Ha Joon Chang, 2003. |
| | | 5 | <i>Dagens Nyheter</i> , 2002. |

CURRENT THREATS TO URBAN SAFETY AND SECURITY

The theme of ‘urban safety and security’ encompasses a wide range of concerns and issues. These range from basic needs, such as food, health and shelter, through protection from crime and the impacts of technological and natural hazards, to collective security needs, such as protection from urban terrorism. However, only a few of these concerns and issues have been, and can be, addressed from a human settlements perspective, mainly through appropriate urban policies, planning, design and governance. For this reason, this Global Report focuses on only three major threats to the safety and security of cities: crime and violence, insecurity of tenure and forced eviction, as well as natural and human-made disasters, including low-level chronic hazards such as road traffic accidents.

These threats either stem from, or are often exacerbated by, the process of urban growth and from the interaction of social, economic and institutional behaviours within cities, as well as with natural environmental processes. They also have impacts which, in turn, affect each other and generate feedbacks that determine subsequent responses to all of them. Each should be understood as an outcome of multiple factors and patterns of causation. Taking a systemic approach to the vulnerability of cities allows one to understand how these dynamics really work.¹ In each case, three issues affect the ability to generate useful policy conclusions and practical approaches to these threats: perception, evidence and methodology.

This chapter introduces the three threats to urban safety and security addressed in this report. It starts by explaining the perspective of urban safety and security taken in the report. It then describes how the current urban context influences the geography of risk and vulnerability. This is followed by a discussion of the main issues characterizing the three threats of urban crime and violence, tenure insecurity and forced eviction, and natural and human-made hazards. Finally, the role of perception, evidence and methodology in improving the understanding of these threats to urban safety and security is examined.

URBAN SAFETY AND SECURITY: A HUMAN SECURITY PERSPECTIVE

The focus of this Global Report on urban safety and security should be placed within the wider concern for human security, which has been recognized by the international community.² This concern is specifically focused on the security of people, not states. It was addressed in detail by the United Nations Commission on Human Security, co-chaired by former United Nations High Commissioner for Refugees (UNHCR) Sadako Ogata and Nobel Laureate and economist Amartya Sen. This commission issued its report in 2003 and addressed a wide range of dimensions of human security, including:

... conflict and poverty, protecting people during violent conflict and post-conflict situations, defending people who are forced to move, overcoming economic insecurities, guaranteeing the availability and affordability of essential health care, and ensuring the elimination of illiteracy and educational deprivation and of schools that promote intolerance.³

This obviously broad coverage includes several important distinguishing features that are relevant to urban safety and security:

- Human security is focused on people and not states because the historical assumption that states would monopolize the rights and means to protect its citizens has been outdated by the more complex reality that states often fail to fulfil their obligations to provide security.
- The focus on people also places more emphasis on the role of the human rights of individuals in meeting these diverse security needs. There is thus a shift from the rights of states to the rights of individuals.
- Recognizing and enhancing the rights of individuals is a critical part of expanding the roles and responsibilities for security beyond simply the state itself.

The focus of this Global Report on urban safety and security should be placed within the wider concern for human security

- It recognizes that people-centred solutions must be identified and supported to address the range of menaces and risks that they encounter.
- Human security, therefore, goes beyond the security of borders to the lives of people and communities inside and across those borders.⁴

With these concerns in mind, the commission adopted the following somewhat more formal definition of human security:

... to protect the vital core of all human lives in ways that enhance human freedoms and human fulfilment. Human security means protecting fundamental freedoms – freedoms that are the essence of life. It means protecting people from critical (severe) and pervasive (widespread) threats and situations. It means using processes that build on people's strengths and aspirations. It means creating political, social, environmental, economic, military, and cultural systems that together give people the building blocks of survival, livelihood and dignity.⁵

This definition combines descriptive, analytic and normative dimensions in asserting what is 'the vital core', what are 'fundamental freedoms' and what is 'the essence of life'. As a broad and fundamental statement, the concept of human security provides a strong foundation for the conceptual basis of this report.

The human security approach builds upon earlier discussions by the United Nations of basic needs, as discussed in the Copenhagen Declaration, adopted at the 2005 World Summit on Social Development, which noted that:

... efforts should include the elimination of hunger and malnutrition; the provision of food security, education, employment and livelihood, primary health-care services, including reproductive health care, safe drinking water and sanitation, and adequate shelter; and participation in social and cultural life (Commitment 2.b).

Another international legal framework is the International Covenant on Economic, Social and Cultural Rights (ICESCR), which states the need to:

... recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions (Article 11.2).

In the last part of ICESCR, Article 11.2 deals with the progressive realization of these rights, and states that governments are legally obliged, under international law, to take steps to improve living conditions.

Building on these prior statements (and when applied to the world of action and when focused on the security of persons and not states), the human security approach specifically addresses three issues:

- protection of individual security through adherence to declared and legitimate rights, such as those on security of tenure introduced in this chapter and examined in greater detail in Chapter 5;
- freedom of individuals to invoke specific rights in their pursuit of the components of human security, as elaborated above, such as secure tenure or freedom from arbitrary arrest or detention, as elaborated upon in the International Bill of Human Rights;
- freedom of individuals to organize in groups to obtain satisfaction with regard to those components of human security.

While the first of these – protection of individual human security based on international human rights laws – represents a major improvement in the juridical and legal environment at the international level, there remain many difficulties of interpretation and jurisdiction at national and urban levels in using these internationally recognized rights as sufficient protection for individual claims. For example, the great majority of laws governing the administration of justice in cases of daily crime and violence at the national and urban levels depend, first, upon the establishment of law by states or local authorities, as in the cases of local policing or penalties for breaking the law, and then upon their enforcement, which frequently relies upon the jurisdiction in which they are being applied.

The second feature of this framework – that individuals actually have the freedom and capabilities to invoke their rights – depends upon many things, including the political and institutional environments in which they live, but also their wider economic and social contexts. This perspective is derived from the framework developed by Amartya Sen, who emphasizes the importance of ensuring the capabilities and freedoms of people to obtain what they need and to satisfy their material requirements.⁶

The third dimension of the framework – that individuals can organize collectively to obtain their rights and thereby reduce the insecurities that they face – is well exemplified by the 2001 Fukuoka Declaration, which focuses on securing land tenure.⁷ The Fukuoka Declaration – adopted by human settlements experts at an international seminar on 'Securing Land for the Urban Poor' – places secure tenure within the broader framework of alleviating poverty and assisting people in the informal sector. It presents a full list of actions that should be taken by governments to ensure that security of tenure is more available to growing urban populations. The declaration, examined in Chapter 11 of this Global Report, is noteworthy because it also seems to assert that security of tenure is both an individual right and a public good worthy of collective public action. It therefore explicitly calls on governments to undertake specific actions to protect both individual rights and the wider public interest while achieving these positive results.

The human security approach builds upon earlier discussions by the United Nations of basic needs, as discussed in the Copenhagen Declaration

In this context, Box 1.1 illustrates how the human security framework is guiding the implementation of three programmes on slum upgrading in Afghanistan, Cambodia and Sri Lanka.

Considering human security as a public good is useful in providing a common perspective for asserting the need for governments to take responsibility for the three dimensions of urban safety and security addressed by this report: crime and violence, security of tenure, and disasters. While each has specific impacts on individuals and households, they also have a wider set of consequences – what economists call ‘externalities’ – for society and the economy as a whole, whether at the national or urban levels.

From the perspective of human security, it is clear that threats to urban safety and security are associated with different types of human vulnerability. These can be divided into three broad categories: chronic vulnerabilities, which arise from basic needs, including food, shelter and health; contextual vulnerabilities, arising from the socio-economic and political processes and contexts of human life; and vulnerabilities arising from extreme events, such as natural and human-made hazards. The concept of vulnerability, which is central to the analytical framework of this report, is discussed in Chapter 2.

As mentioned at the beginning of this chapter, of the many threats to urban safety and security, and the associated vulnerabilities, this report addresses only those that can, and have been, tackled from a human settlements perspective (i.e. through urban policy, planning, design and governance). However, this does not mean that the vulnerabilities not discussed in this report are not important. In fact, some of them, especially those chronic and contextual vulnerabilities that collectively influence poverty, are also fundamental determinants of vulnerability and resilience with respect to crime and violence, insecurity of tenure and eviction, as well as to natural and human-made hazards.

THE URBAN CONTEXT: GEOGRAPHY OF RISK AND VULNERABILITY

As shown in recent United Nations projections, the world is going through a significant urban transformation (see Table 1.1). The world’s population will soon be more than half urban, with projected urban growth in developing countries in the order of 1.2 billion people between 2000 and 2020. This growth increases the pressure on urban residents to earn incomes, and to secure adequate shelter, basic infrastructure and essential social services, such as healthcare and education. Existing backlogs of services – as reflected in the 1 billion people already living in slums – are strong indicators of the weaknesses of both public and private institutions to provide such services (see Table 5.2).⁸ These conditions have been well documented in most countries. With more than 2 billion people lacking access to clean water and more lacking sanitation as well, it is clear that the very meaning of ‘security’ itself needs examination.⁹ While cities and towns offer the hope of greater employment,

Box 1.1 Enhancing urban safety and human security in Asia through the United Nations Trust Fund for Human Security

In March 1999, the Government of Japan and the United Nations Secretariat launched the United Nations Trust Fund for Human Security (UNTFHS), from which the Commission on Human Security prepared the Human Security Now report in 2003, as a contribution to the UN Secretary-General’s plea for progress on the goals of ‘freedom from want’ and ‘freedom from fear’. The main objective of the UNTFHS is to advance the operational impact of the human security concept, particularly in countries and regions where the insecurities of people are most manifest and critical, such as in areas affected by natural and human-made disasters.

Growing inequalities between the rich and the poor, as well as social, economic and political exclusion of large sectors of society, make the security paradigm increasingly complex. Human security has broadened to include such conditions as freedom from poverty, access to work, education and health. This, in turn, has necessitated a change in perspective, from state-centred security to people-centred security. To ensure human security as well as state security, particularly in conflict and post-conflict areas where institutions are often fragile and unstable, rebuilding communities becomes an absolute priority to promote peace and reconciliation.

With the rapid urbanization of the world’s population, human security as protecting ‘the vital core of all human lives in ways that enhance human freedoms and human fulfilment’ increasingly means providing the conditions of livelihood and dignity in urban areas. Living conditions are crucial for human security, since an inadequate dwelling, insecurity of tenure and insufficient access to basic services all have a strong negative impact on the lives of the urban population, particularly the urban poor. Spatial discrimination and social exclusion limit or undermine the rights to the city and to citizenship.

In this context, UN-Habitat is coordinating three UNTFHS programmes in Afghanistan, North east Sri Lanka and Phnom Penh, the capital city of Cambodia, all focusing on informal settlements upgrading. On the assumption that community empowerment is crucial for the reconstruction of war affected societies, all programmes have adopted the ‘community action planning’ method – a community-based consultative planning process – and have established community development councils as the most effective approach to improving living conditions and human security in informal settlements.

Source: Balbo and Guadagnoli, 2007

higher wages, and a remedy to poverty,¹⁰ they also bring enormous challenges to human security and safety.

These challenges must be placed within a context of both opportunity and risk. Data from all countries shows that as the share of urban population increases, so does gross domestic product (GDP) and per capita income. These increases reflect increasing productivity and agglomeration economies that make urban-based economic activities highly productive. They now generate more than half of GDP in all countries, with the more urbanized countries in Europe, North America and Asia accounting for up to 80 per cent of their GDP from urban-based activities. The medieval saying that ‘city air makes men free’ can be complemented with the observation that urban life offers the prospect of greater economic welfare as well.

Table 1.1

Contemporary world urban transformation

	2000 (millions)	2010 (millions)	2020 (millions)	2000 (per cent)	2010 (per cent)	2020 (per cent)
Total world population	6086	6843	7578	100.0	100.0	100.0
Developing countries	4892	5617	6333	80.4 ^a	82.1 ^a	83.6 ^a
Total world urban population	2845	3475	4177	46.7 ^a	50.8 ^a	55.1 ^a
Developing countries	1971	2553	3209	40.3 ^b	45.5 ^b	50.7 ^b
				69.3 ^c	73.5 ^c	76.8 ^c

a: Percentage of total world population; b: Percentage of total population in developing countries; c: Percentage of total world urban population.

Source: United Nations, 2005; UN-Habitat 2006e

The poor are disproportionately victimized by the three threats to safety and security examined in this volume

Slums are ... the locus of the greatest deprivation in material welfare in societies ... and also lack the institutional and legal framework to guarantee their safety and security

Global statistical evidence shows strong correlations between level of development and the degree of urban security, as measured by the incidence of disaster and crime and violence

This observation, however, must be tempered by the reality of growing numbers of urban residents living in poverty, lacking basic infrastructure and services, housing and employment, and living in conditions lacking safety and security. As Chapters 3, 5 and 7 of this Global Report will illustrate in detail, the poor are disproportionately victimized by the three threats to safety and security examined in this volume: crime and violence, insecurity of tenure, and natural and human-made disasters. This unequal distribution of risk and vulnerability is a major burden for the poor as a whole. It also has a disproportionate impact on groups least able to defend themselves: women, children, the elderly and the disabled.

This distribution of risk and vulnerability is an important and growing component of daily urban life. It is often linked to the presence of millions of urban residents in slums, which are environments in which much crime and violence occur, where tenure is least secure, and which are prone to disasters of many kinds. The safety of men, women and children is at risk every day from crime and traffic accidents, violent crime, threats to security of tenure, and natural and human-made hazards. As discussed in Chapter 7, this spatial dimension is reflected in the term 'geography of disaster risk' for which there is extensive data showing what kinds of disasters are occurring in cities in specific regions of the world, as presented in Chapter 7.

A particularly noteworthy type of challenge to urban safety is the widespread and growing incidence of traffic accidents and related deaths. An estimated 1.2 million people are killed in road traffic accidents each year, and up to 50 million are injured, occupying between 30 and 70 per cent of orthopaedic hospital beds in developing countries.¹¹ One study of Latin America and the Caribbean concluded that at least 100,000 persons are killed in traffic accidents and 1.2 million are injured each year in that region, with costs measured in lost productivity, hospital bills and other factors estimated at US\$30 billion.¹²

Later chapters will present and explain the central significance of slums in this nexus of daily urban risk and vulnerability; but recognizing how the characteristics of slums directly contribute to this nexus is needed to set the context for this report. Slums are at once the locus of the greatest deprivation in material welfare in societies, the weakest human capital in terms of investment in health and education, and also lack the institutional and legal framework to guarantee their safety and security. These forms of deprivation are cumulative and interact with one another. The poorest in most urban areas live in slums lacking both the safeguards for protection from private actions and unjust public policies. Insecurity of tenure – which affects large numbers of poor slum dwellers – itself weakens the possibility of establishing communities, community institutions and cultural norms to govern and regulate behaviour. The slums represent one part of what has been termed 'the geography of misery'.¹³

One important dimension of this context is the fact that human life in cities is itself precarious in the absence of basic services such as housing, water supply and sanitation, as well as food. Common waterborne diseases such as

cholera or vector-borne diseases such as malaria can quickly reach epidemic proportions in dense underserved urban areas and in the absence of medical prophylaxis. The probabilities of death from health threats such as these constitute the greatest challenges to the security of individuals, especially in urban slums. These health threats to urban safety and security are not discussed in this report; but, as mentioned earlier, they are part of the chronic vulnerabilities that constitute an important dimension of urban poverty.

Lack of basic services, however, is not simply a micro-level issue affecting individuals, households and communities. It also extends to cities and nations as a whole and represents significant macro-economic costs in many societies. This Global Report will present data demonstrating that urban insecurity is a major obstacle to macro-economic growth in some countries and deserves policy attention at the highest levels of government. As shown in Chapter 7, the importance of urban insecurity has already been recognised by the global insurance industry by assigning specific cities around the world to risk categories. Global statistical evidence shows strong correlations between level of development and the degree of urban security, as measured by the incidence of disaster and crime and violence.¹⁴ GDP growth rates, for example, correlate negatively with homicide rates, although this is often offset by income inequality. But, as shown in Chapter 3, this correlation is reversed for property crime, demonstrating other causal mechanisms.

An additional urban dimension of this context is how the scale and density of cities affects urban safety and security. Subsequent chapters will present some aspects of this dimension, especially with respect to the incidence of crime and violence, as well as the impacts of natural and technological hazards, which tend to be higher in larger and denser urban areas. There are important caveats to this conclusion, including, for example, that very high density areas may have lower crime rates, such as New York, while there may also be an increased vulnerability in low density regions, such as isolated areas lacking social and institutional mechanisms for protection. As indicated in Chapter 3, the roles of culture and governance are but two of the factors that mediate these relationships and make clear correlations difficult to establish.

While these caveats apply to the risks of crime and violence, they do not necessarily apply to disasters where the concentration of more people also concentrates and magnifies risk and the likelihood of death, injury and property damage. The case of rapid growth in Dhaka, Bangladesh, illustrates this process of increasing risk in large cities (see Chapter 7). One large risk insurance company has identified the 15 largest cities at high risk due to natural hazards, including earthquakes, tropical storms, tsunamis and volcanic eruptions (also see Table 7.5 in Chapter 7). Smaller cities usually lack the institutional capacity to prepare for and manage risks. In physical terms, urbanization processes at all levels tend to change the risk and hazard profiles of cities. As stated earlier, this concentration of risk is greatest for the urban poor living in slums. All of these issues should focus more attention on urban governance, adding risk management and prevention to the already considerable

Road map of types of violence in Central America				
Primary direction of violence continuum	Category of violence	Types of violence be perpetrators and/or victims	Manifestations	Secondary direction of violence continuum
<p style="text-align: center;">↑</p> <p>Intra-household social violence results in youths leaving the home and at risk to variety of street violence</p>	Political/institutional	Institutional violence of the state and other 'informal' institutions Including the private sector	Extra-judicial killings by police State or community directed social cleansing of gangs and street children Lynching	<p style="text-align: center;">↓</p> <p>State institutional violence resulting in lack of trust in police and judiciary system</p>
	Institutional/economic	Organized crime Business interests	Intimidation and violence as means of resolving economic disputes Kidnapping Armed robbery Drug trafficking Car and other contraband activities Small arms dealing Trafficking in prostitutes and USA headed immigrants	
	Economic/social	Gangs (Maras)	Collective 'turf' violence; robbery, theft	
	Economic	Delinquency/robbery	Street theft; robbery	
	Economic/social	Street children (boys and girls)	Petty theft	
	Social	Domestic violence between adults	Physical or psychological male-female abuse	
	Social	Child abuse: boys and girls	Physical and sexual abuse	
	Social	Inter-generational conflict between parent and children (both young and adults, particularly older people)	Physical and psychological abuse	
	Social	Gratuitous/routine daily violence	Lack of citizenship in areas such as traffic, road rage, bar fights and street confrontations	

Figure 1.1

The violence continuum

Source: Moser and Shrader, 1999; Moser and Winton, 2002.

Violent crime increased worldwide from 1990 to 2000, from 6 to 8.8 incidents per 100,000 persons

agenda of policy and programme issues faced by urban managers.

CRIME AND VIOLENCE

The problem of crime and violence in cities has been long recognized as a growing and serious challenge in all parts of the world.¹⁵ Studies of this phenomenon have encompassed the following issues: distribution and incidence across countries and levels of development; distribution and incidence of the impact of crime and violence across different categories of people, specifically by gender, race and age; location of violence by city size; types of violence, perpetrators and victims; economic and financial costs of violence; and diverse theories of causation – from the ecological model of violence, through more psycho-cultural explanations, to broader macro-economic and developmental frameworks. Some of these theories are reflected in what has been described as the ‘violence continuum’ (shown in Figure 1.1), which categorizes different types of crime and violence by perpetrators, victims and manifestations.

There are many dimensions of urban crime and violence. What is dramatic is its widespread existence in countries in all regions and at all levels of development.

While there is considerable variation across countries, the problem is clearly shared. Chapter 3 presents data showing that violent crime increased worldwide from 1990 to 2000, from 6 to 8.8 incidents per 100,000 persons. The data demonstrates that over the past five years, 60 per cent of all urban residents have been victims of crime, with 70 per cent in Latin America and Africa. A recent comparative assessment of homicide across continents shows that the highest rates are found in developing countries, and particularly in sub-Saharan Africa and Latin America and the Caribbean. Studies by the International Crime Victimization Survey report that Africa’s cities have the highest burglary and assault rates and the second highest rates of robberies. While crime appears to correlate with national income, there are important exceptions – for example, Russia and the US, which also have particularly high murder rates.¹⁶

The World Health Organization (WHO) has estimated that 90 per cent of violence-related deaths in the year 2000 occurred in low- and middle-income countries, with violent deaths at 32.1 per 100,000 people, compared to 14.4 per 100,000 in high-income countries.¹⁷ European murder rates have declined steadily from the 11th century to the present.¹⁸ Indeed, European and US homicide rates have gone in opposite directions.¹⁹ US rates are about 5 per

60 per cent of all urban residents have been victims of crime, with 70 per cent in Latin America and Africa

100,000 people, while the rates for other 'established market economies' are around 1 per 100,000.²⁰ These rates are interesting because they suggest cultural and institutional differences surrounding violent behaviour.²¹

Further variation in crime rates is found within countries, between rural areas and cities, and between cities of different sizes, with higher rates within larger cities. Cities such as Los Angeles and New York have much higher homicide rates than other cities. All of this data is illustrative, but must also be qualified in terms of the well-known difficulties of obtaining reliable data concerning crime and violence, not only in one city, but even more so when any effort is made to compare across cities, within countries and even on a global basis. Such data and methodological issues will be addressed in later sections of this Global Report.

Within this context, additional threats to individual security are cumulative and exist on top of chronic patterns. For example, the incidence of death that can be attributed to crime and violence among young males in most cities has increased significantly over the past two decades. Figure 1.2 compares death rates among young men (from deprived and non-deprived neighbourhoods) in São Paulo (Brazil), New Orleans (US) and US urban centres as a whole. The figure suggests that male adult longevity rates reflect growing deaths from violent crime in cities in both rich and poor countries. The highest cause of death of African-American males in US cities is from violent crime, with rising rates of imprisonment as well. Death rates in cities such as gang-ridden San Salvador in El Salvador or São Paulo in Brazil are similarly high. Death rates from violent crime in the Middle East and Asia are generally lower, while violence in African cities such as Cape Town, Johannesburg or Lagos is quite high. An important threshold is crossed when crime and violence show up in health statistics. A key point here is that local cultural factors play a significant role in explaining local variation.

The hypothesis that cities would experience violent crime is of long historical origin. In a classical essay of 1903, the sociologist Georg Simmel argued that the anomie in cities and poverty resulting from the industrial revolution explained increasing urban violence.²² This, in fact, did not happen in Europe; but it seems to have occurred in another context, in cities in developing countries where recent

migrants often find themselves in contexts lacking communal values governing individual and collective behaviours. If Simmel's hypothesis did not hold at the city level in Europe, it is probably more robust when tested across various neighbourhoods within cities. Rates of violent crime across neighbourhoods within most cities vary considerably, with higher rates correlated with lower incomes and, increasingly, with drug-related behaviour.

Studies of the origins and motivations for crime and violence have covered a wide spectrum. On one side, there are many psycho-social theories and explanations focusing on the socialization of individuals, including intra-family dynamics and violence, to the birth of aggression and lack of self-esteem, and to peer experiences in school, in gangs and in the streets, much of this captured in the notion of the ecological model.²³ This model connects four analytic levels in explaining interpersonal violence: individual, social relationships, community and society.²⁴ As shown in Chapter 3, there are also opportunity and place-based models within this broader ecological perspective.

The interactions between these levels are well reflected in a chapter title 'The family as a violent institution and the primary site of social violence' in a recent book.²⁵ The authors quote a young boy in Bogotá who says: 'Violence begins at home, and it is one of the most important factors in the harmony of the community, and this brings about lack of respect in everyone.'²⁶ The problem of intra-family violence includes domestic and sexual abuse of women and young girls. As the quotation from the boy in Bogotá suggests, intra-family dynamics carry out to the street as well, as behaviours learned or accepted at home become socialized and directed, often randomly, at the society at large. These include behaviours directly connected to gender, as shown in studies of violence and 'manliness' in the southern US.²⁷

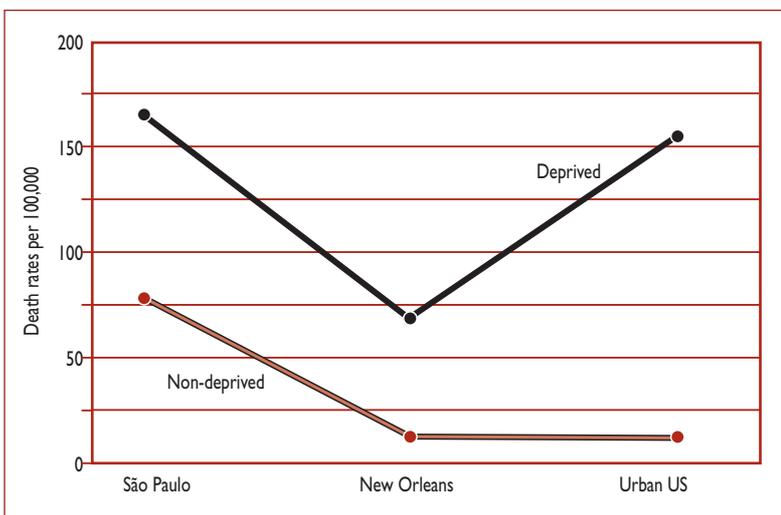
Other less psychological but significant explanations of violence and crime are more socially based understandings, seeking to identify societal forces and place-based factors that generate violent responses to relative deprivation. These explanations are well captured in the observation that 'in reality, violence is constructed, negotiated, reshaped and resolved as perpetrators and victims try to define and control the world they find themselves in'.²⁸ From this perspective, crime and violence may be quite functional to urban survival.²⁹ In this regard, crime and violence can also be politically and socially constructed.

There are many cases where downturns in the economy lead to attacks by local residents on foreign workers – for example, in Ghana during economic recession in the 1970s when Beninois and Nigerians were sent out of Ghana back to their own countries in convoys of trucks. This episode was followed by retaliatory measures by the Nigerian government in the 1980s. In some cases, socially and racially excluded groups strike back, as in the riots in London in 1981, Los Angeles in 1992 or in Paris and in many other French urban areas in 2006, where several weeks of burning of cars, arson and attacks on property reflected years of frustration with French government policies and with the complicated mechanisms of social and economic exclusion.

Rates of violent crime across neighbourhoods within most cities vary considerably, with higher rates correlated with lower incomes and, increasingly, with drug-related behaviour

Figure 1.2
Violence-related deaths among young men

Source: Stephens, 1996, p21



The emergence of ethnic identity as the basis of ethnic conflict and nationalist aspirations in the post-Cold War years has been widely noted, with the case of the break-up of the former Yugoslavia into several independent states being one of the most bloody, and with the tragic histories of Bosnia and, later, Kosovo. A study of indigenous populations in 160 countries shows that countries have an average of 5 indigenous ethnic groups, varying from an average of 3.2 per country in the West to 8.2 per country in Africa. Ethnic diversity is more common in Africa, South Asia and Southeast Asia (see Chapter 3).

Within this larger picture, the cases of nationalist movements in Chechnya, East Timor, Kurdistan and Georgia, to cite a few, have all emerged with great force, to the surprise of many people who did not understand the strength of these ethnic identities and their nationalist objectives.³⁰ These dynamics have been closely connected with the issue of minority status and conditions. A contemporary anthropologist writes about 'the civilization of clashes', playing with the title of the well-known book by Samuel Huntington.³¹ He notes that there have been more wars in the nation than wars of the nation.³²

These wars in the nation have also been closely related to the many cases of state-sponsored violence in many countries over the past few decades, whether in military dictatorships in Argentina, Chile, El Salvador or Guatemala during the 1970s and 1980s, or in Ethiopia, Rwanda or Burundi during the 1980s and 1990s, or in Myanmar over the last decade. The 2005 case of squatter evictions and demolitions in Harare, Zimbabwe, is a recent instance where the government continued despite international attention and calls for restraint. The ongoing case of Darfur in western Sudan has been seen as an example of state-sponsored violence at a regional level.

Studies of crime and violence suggest interesting contradictions, such as the fact that the poorest members of society are rarely the perpetrators of violence; rather, the perpetrators are frequently individuals and groups who have enjoyed some prior upward social mobility or economic improvement and then find themselves blocked from further improvement. These individuals and groups often express their frustrations through violence. This phenomenon was observed in the location of riots during the 1960s in the US, where violence occurred in those cities with the most successful anti-poverty programmes (i.e. Chicago, Detroit and Los Angeles).³³ It also reflects experience in Mumbai and other cities, where recent poor rural-urban migrants who are entering the labour force are rarely involved in violence.³⁴

While these theories and cases offer complementary and related evidence about the understanding of crime and violence, they are a backdrop to the daily lived experience of residents of Rio de Janeiro, São Paulo, Mexico City, Johannesburg or Manila, to name a few of the many cities in developing countries where growing crime and violence are perceived as a major problem affecting all strata of society.

During the late 1990s, the Government of Mexico began to publicly discuss urban crime as a problem with macro-economic consequences. This was an interesting

development because, in relative terms, Mexico had a comparatively low level of loss of GDP due to violence, at 1.3 per cent in 1997, compared to other Latin American countries such as Colombia and El Salvador, which both lost an estimated 25 per cent.³⁵ In contrast, the US, with a much larger GDP, had estimates of the costs of violence reaching 3.3 per cent of GDP.³⁶ This staggering amount has many interesting components, such as the estimated cost of a homicide in the US valued at US\$2 million, while estimates were US\$15,319 in South Africa and US\$602,000 in Australia, respectively, reflecting foregone income.³⁷ Analytically, the WHO has distinguished between direct and indirect costs of violence in its review of 119 studies of the economic dimensions of interpersonal violence. Figure 1.3 presents these different costs.³⁸ The financing of these costs is a considerable weight on poor economies. Studies of Jamaica found that 90 per cent of the costs of treating victims of violence at the Kingston Public Hospital were paid by the government.³⁹

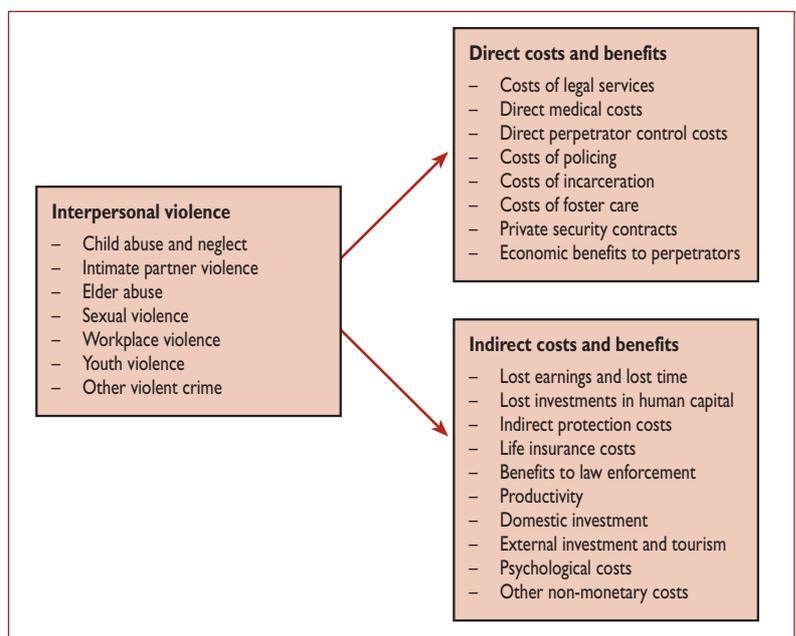
In this regard, it is interesting to observe differences between cities within countries, such as the reductions in crime and violence achieved in Medellín, Colombia, where a strong mayor and civil society were determined to overcome drug violence and dominance of 'drug lords',⁴⁰ compared to continued problems in Cali, where the drug cartels continue to exercise effective power. A third Colombian city, Bogotá, the national capital, has dramatically reduced crime and violence.⁴¹ And yet, although Colombia is globally perceived as a violent country, more people died in armed violence in the *favelas* of Rio de Janeiro (49,913) from 1978 to 2000 than in all of Colombia (39,000).⁴²

In Brazil, more than 100 people are killed by guns every day, and the gun-related death rate in Rio de Janeiro is more than double the national average.⁴³ Organized crime demonstrated its great power in São Paulo during May and June 2006 with its well-orchestrated attacks on police, followed by bloody retribution by the police. Press reports on São Paulo following this episode noted some startling data (see Box 1.2). Chapter 3 presents the drug dimensions of

The emergence of ethnic identity as the basis of ethnic conflict and nationalist aspirations in the post-Cold War years has been widely noted

Figure 1.3
Costs and benefits of interpersonal violence

Source: WHO, 2004, p6



Box 1.2 Startling data on crime and violence in Brazil (2006)

- São Paulo, Brazil, had 1 per cent of the world's homicides, but only 0.17 per cent of the world's population.
- At least 25,000 homes in São Paulo had security cameras to monitor entrances and exits from their grounds,
- There were 35,000 armed cars in Brazil.
- Since the well-orchestrated attacks on police during May to June 2006, there was a 33 per cent increase in armed windshields sales.
- The Brazilian security market had reached some US\$49 billion, about 10 per cent of gross domestic product (GDP), of which 60 per cent were private expenditures.
- In 2006, private security companies employed 1.5 million individuals in Brazil.

Source: Esnal, 2006, p4

An important aspect of urban crime and violence has been the role of youth

Almost every city in the world has developed private security companies and forces

this problem, showing that some 200 million people are drug users, a slight reduction over the last few years. The impact of specific drugs on these patterns is startling, with cocaine deaths increasing, while the global market for marijuana is about 162 million users.

An important aspect of urban crime and violence has been the role of youth. The WHO reports that during 2000, some 199,000 youth homicides were committed globally, or 9.2 per 100,000 individuals. This is equivalent to 500 people between 10 and 29 dying each day in youth homicides, varying from 0.9 per 100,000 in high income countries to 17.6 in Africa and 36.4 in Latin America. For every fatality, there are from 20 to 40 victims of non-fatal youth violence.⁴⁴ In some cases, these high numbers are the results of gang violence in specific cities. In Africa, with nearly 75 per cent of the urban population living in slums and 44 per cent of the population below 15 years of age, the conditions for gang formation are prevalent. This also highlights what is called 'child density' within a population (see Chapter 3). For example, in Cape Flats, Cape Town, South Africa, there are an estimated 100,000 gang members who are considered responsible for 70 per cent of the crime.⁴⁵ The case of South Africa is particularly interesting because high rates of urban violence involving youth have their origins in the apartheid period and in patterns of policing and segregation.⁴⁶ Data on Nairobi, Kenya, shows similar results, with very high crime rates and high rates of violence.⁴⁷ Much of this crime originates from slum areas where 60 per cent of Nairobi's population lives on only 5 per cent of the city's land.⁴⁸ Mexico City is divided into zones by some 1500 competing gangs.⁴⁹ Gang membership is a problem across many cities. These estimates suggest the size of the problem: El Salvador (35,000), Guatemala (100,000) and Honduras (40,000).⁵⁰ In Guatemala, there are estimates of 20,000 murders in gang warfare over the past five years. The following definition of this gang warfare helps to clarify this phenomenon: 'children and youth (who are) employed or otherwise participating in organized armed violence where there are elements of a command structure and power over territory, local population or resources'.⁵¹ Given the dominant role of media and perception of these issues, the definitions of various forms of crime and violence and the establishment of useful comparative categories about both origins and impacts are important foundational steps in

developing useful policies and approaches to address these problems. In-depth empirical studies on neighbourhood violence in Kingston, Jamaica, demonstrated that many different forms of violence can operate concurrently, with diverse causes, mechanisms and outcomes.⁵² Definitions and categories of crime and violence will be discussed in some depth in Chapters 3 and 4 of this Global Report. It is important to note, however, that there are great differences between so-called 'top-down' perceptions of the problem, and the consequent policy approaches, and other more participatory 'bottom-up' perspectives and suggested remedies.⁵³ Notions such as 'zero tolerance', as promulgated by a former New York mayor a few years ago, ignore the important differences between the origins and the sites of crime. It is not surprising that the 'zero tolerance' approach found little support in Mexico City when its supporters tried to export the model.

While this overview has provided a picture of the global situation in cities, another dimension also deserves attention: the response to crime and, specifically, prevention. Beyond the strengthening of policing and the judicial system that will be discussed at length in later chapters, two specific responses have become increasingly common: the privatization of security and the role of community groups. Both of these responses come, in part, from the inadequacy of the police and criminal justice system to address these problems. Almost every city in the world has developed private security companies and forces. An estimate in 2000 indicated that the annual growth of private security was 30 per cent and 8 per cent, respectively, in the developing and developed countries.⁵⁴ One study of South Africa reported that the number of private security guards has increased by 150 per cent from 1997 to 2006, while the number of police decreased by 2.2 per cent in the same period.⁵⁵ The question of the balance between public and private crime prevention is a major issue.

A second and related aspect of private or 'non-public' security is community security, where community groups decide to maintain security in their neighbourhoods. This process, involving what might be called 'community buy-in' or, more dramatically, 'vigilantism', in some countries has its roots in traditional culture and notions of justice in many cities. It also has become a widespread contemporary phenomenon whereby specific crimes or outbreaks of crime lead to neighbourhood and community efforts, whether citizens patrol their communities or groups are designated to perform this and other functions, such as the Young Lords in New York City. One well-documented case is a group called People against Gangsterism and Drugs (PAGAD), which was formed in Cape Town to murder gang leaders in order to stop violence. This violent approach, however, led to attacks on PAGAD and actually increased the violence,⁵⁶ illustrating how such efforts can become out of control. Beyond these dramatic examples, the issue of community responsibility for urban security is a broad concern to be addressed by this Global Report. Indeed, as will be suggested in subsequent chapters, the role of civil society at a general level and of specific communities is an essential part of achieving resilience in the face of these challenges.

TENURE INSECURITY AND FORCED EVICTION

The second threat to urban safety and security that this report examines is the growing worldwide problem of insecure tenure of the urban poor and the threat of forced eviction from public and private land, which they occupy with or without legal permission. While this problem has been studied for many years and considered in the analysis of land use and housing, more recently, freedom from forced eviction has become recognized as a fundamental human right within human rights law.⁵⁷ This important advance has fundamentally changed the debate about this subject, shifting it from an issue of technical legal status to one of a legally recognized right. This shift has changed the legal position of households lacking secure tenure. In theory, households are now legally protected from administrative decisions of local or national governments to bring in the bulldozers. The challenge, now, is to identify appropriate alternative forms of security of tenure within a specific locality.

Chapters 5, 6 and 11 of this report are devoted to security of tenure. They review the wide range of tenure options that currently exist in different parts of the world and discuss what makes tenure secure or insecure. The discussion is based on the increasing recognition that security of tenure is a basic human right. This approach also fits within the concept of human security, as presented earlier in this chapter, and thus takes a more all-encompassing vision of human rights as they relate to the tenure issue.

As noted in Chapter 5, security of tenure has been defined as 'the right of all individuals and groups to effective protection by the state against forced evictions'. In this context, it is important to distinguish forced evictions from market-driven evictions. Market-based evictions are much larger in scale and frequency than public expropriations of land.⁵⁸ It has been emphasized that 'Eviction mechanisms and trends must be analyzed with reference to the global context of the persistent imbalance between demand and supply of land for housing, the scarcity of prime urban land for development, increases in the market value of urban land, and increasing commodification of informal land markets.'⁵⁹ A useful typology of these situations has been developed (see Box 1.3).

What is the scale of insecurity of tenure? As noted earlier, there are already more than 1 billion people living in slums, and many more are expected in the projected urban expansion to come over the next few decades. Chapter 5 suggests that many slums in developing country cities are often characterized by insecurity of tenure and that the scale of insecurity of tenure is growing, along with urban demographic growth. Furthermore, current evidence suggests that there is deterioration in tenure status as expanding urban populations are forced into unplanned or illegal settlements.

Estimates cited in Chapter 5 note that, in most developing country cities, between 25 and 70 per cent of the urban population are living in irregular settlements, including squatter settlements and rooms and flats in dilapidated buildings in city centre areas. In spite of the many existing

Box 1.3 Forced eviction: A typology

- A landowner who has, in the past, authorized tenants to settle on his land now wants to develop it or to sell it to a developer. He refuses to collect rent and asks the occupants to move out (this has been a common case within inner-city slums in Bangkok during the last 30 years).
- An investor buys land suitable for development from a private landowner with the intention of developing it. If tenants or squatters already occupy the land, and if the investor cannot persuade them to leave through negotiation, he may obtain an eviction order from a court.
- Public authorities launch an expropriation procedure, by power of eminent domain, in order to build infrastructure or carry out urban renewal, or a redevelopment scheme, or a beautification project.
- Public authorities sell land to private investors which is already occupied by tenants or squatters (this is common in cities in transition, where land is being privatized with the pressure of emerging land markets). The sale of public land aims to increase their revenues in the absence of land taxation and other fiscal resources.
- Public authorities recover land that had been allocated to occupants under a temporary 'permit-to-occupy' regime in order to carry out a development project, usually in partnership with private investors (this is common in sub-Saharan African cities, where the 'permit-to-occupy' regime still prevails).

In all of these cases, occupants of the land will ultimately be exposed to forced evictions. However, *de facto* security of tenure in informal settlements usually provides protection against forced evictions, which may compromise the success of legal actions to evict occupants, and may force private investors or public authorities to negotiate.

Source: Durand-Lasserve, 2006

poverty alleviation initiatives and safety-net programmes, the total number of people living in informal settlements is increasing at a faster rate than the urban population.⁶⁰ According to one analyst, an additional 2.8 billion people will require housing and urban services by 2030, with some 41 per cent of humanity possibly living in slums.⁶¹ Another finds that informal land occupation in urban areas remains large scale: 51.4 per cent in sub-Saharan Africa; 41.2 per cent in East Asia and the Pacific; 26.4 per cent in Latin America and the Caribbean; 25.9 per cent in the Middle East and North Africa; and 5.7 per cent in Eastern Europe and Central Asia.⁶² At the national level, the pattern is the same, with between 40 and 70 per cent of the population of Brazil's main cities living in irregular settlements and some 58 per cent of all households in South Africa living without security of tenure.⁶³ Data also shows that tenure problems exist in developed countries as well, such as in the UK and the US.

Beyond the difficulties of estimating the scale and complexity of the tenure insecurity problem, Chapter 5 also presents a range of existing tenure and occupancy options. What is clear is that no one alternative is appropriate for all circumstances. Security of tenure depends upon what kind of land and/or housing is being occupied (public or private), and whether the occupant has some form of legal contract or lease, or not. While protection from forced evictions has been accepted in international law, the fact is that evictions are nevertheless increasing. The challenge, therefore, is to understand why and to identify measures to reduce this form of urban insecurity.

Freedom from forced eviction has become recognized as a fundamental human right within human rights law

Insecurity of tenure is at once a cause and an outcome of poverty and inequality

At least 2 million people are forcibly evicted every year, while a similar number is threatened by evictions

Tenure insecurity increases the vulnerability of the urban poor to natural hazards

Within the field of urban policy and research, insecurity of tenure has long been recognized as a constraint to the physical improvement of low-income communities through investment in housing and infrastructure.⁶⁴ Households lacking some guarantee of occupancy simply have not invested in housing improvements. As a result, the actual condition of housing has not always reflected the income level of its inhabitants and frequently is considerably worse than it could be if some security of tenure existed. Studies in many urban slums in developing countries demonstrate that residents often have more money than the quality of their shelter would suggest. The absence of secure tenure has also inhibited the granting of mortgage and home improvement loans by public and private financial institutions, even when these same individuals might have the income and assets to serve as forms of collateral for housing loans.⁶⁵ This significant depressive impact on the housing sector in many developing country cities has largely been the result of inadequate public policies regarding housing, land and urban infrastructure.

This leads to the conclusion that insecurity of tenure is at once a cause and an outcome of poverty and inequality. People are poor because they have inadequate living conditions and, at the same time, they are also unable to improve their living conditions due to the tenure arrangements under which they live. Among the victims of tenure insecurity are particular groups such as women, indigenous peoples, ethnic minorities, refugees, tenants, the displaced and the disabled. Their problems are elaborated upon in Chapters 5 and 6. What is apparent is that tenure insecurity is a significant component of the numerous disadvantages facing the poor.

Several important examples of forced evictions are well known. In Zimbabwe, *Operation Murambatsvina* displaced an estimated 700,000 urban residents in 2005. Soon after this operation by the Government of Zimbabwe, thousands of people faced forced evictions in Nigeria and, more recently, in Zambian cities in early 2007. Data collected by the Centre on Housing Rights and Evictions (COHRE) suggests that at least 2 million people are forcibly evicted every year, while a similar number is threatened by evictions (see Chapter 5).

The scale of insecurity of tenure and forced evictions is largely a result of public policies and private-sector behaviours. Urban growth places great demands on public policies and strategies to enable the provision of shelter, whether by the public or private sectors. Many governments often argue that they need to displace urban residents from locations planned for other uses. In some cases, these actions simply reflect official intentions to eliminate 'eyesores', often around the time of major international events bringing important guests and tourists. In some cities, governments view slum areas as threats to public health or as the breeding ground for urban crime.

These arguments in favour of forced evictions, however, can also be seen within the larger picture that most government policies have not been effective in providing an adequate legal framework for the rapid provision of legal options for shelter and occupancy of land. Constraints such as ineffective land tenure and administration systems, poor

infrastructure design and construction, as well as lack of finance, have limited the availability of legally accessible land and shelter options for growing urban populations. Providers of infrastructure services such as water supply or public transport use the absence of tenure as excuses for not providing services to low-income communities.⁶⁶ As noted earlier, with a backlog of 1 billion people living in slums and another 1.2 billion expected urban residents in developing countries by 2020, this problem is acute (see Table 1.1).

Insecurity of tenure contributes significantly to other problems as well. By seriously undermining the performance of the housing sector in many countries, tenure issues limit the overall supply of housing, thereby raising both prices and costs. These, in turn, contribute to homelessness and the pressure on the urban poor to find whatever land is available for squatting, whether between railroad tracks in Mumbai, on dangerously unstable hillsides in Ankara or Caracas, or alongside canals filled with human waste in Bangkok or Jakarta. The plight of these people is well captured in the terms 'pavement dwellers' in India or in '*villas miserias*' (villages of misery) in Buenos Aires. It is also clear from this that tenure insecurity increases the vulnerability of the urban poor to natural hazards.

Despite 50 years of public and, indeed, global debate on these issues, it is remarkable that many national and local governments continue to believe in the bulldozer as the preferred instrument of public policy in the clearance of these slums and slum populations, whether in Harare or Mumbai.⁶⁷ In addition to the direct impact of slum clearance on the urban poor, it should also be recognized that the social and economic exclusion of this large and growing population – more than 1 billion people worldwide and 6 million people in greater Mumbai alone – has a negative impact on local finance and economic productivity. A total of 1 billion people living in slums is not only a severe social problem, but also a major drain on urban-based economic activities since slum dwellers are likely to be less healthy and less productive than more fortunate urban residents.⁶⁸ Sending the urban poor to remote locations on the peripheries of cities further inhibits their opportunities for earning incomes and meeting their own basic needs. Indeed, studies of these phenomena in many cities such as Abidjan, Lagos or Rio de Janeiro demonstrate conclusively that urban relocation reduces incomes and further impoverishes already poor people.⁶⁹ If the importance of security of tenure should not be minimized, it is also possible to assign a disproportionate influence to this constraint on the quality of human settlements. Experience in many cities demonstrates that security of tenure is a necessary, but insufficient, condition for housing investment and housing quality. Access to residential infrastructure such as water supply, sanitation and other environmental infrastructure, such as drainage, is equally if not more important in ensuring the basic needs of individuals and households. Having a title to a plot of land without reasonable access to water supply does not solve the housing problems of an urban household.⁷⁰

Tenure, therefore, should be recognized as a legal protection and human right against uncertainty about whether public authorities will bulldoze so-called illegal

settlements and forcibly evict households from their shelter. It operates on both sides of the supply-and-demand equation, constraining the supply of investment in new housing and the demand for new housing and improvements to existing housing.⁷¹

With these concerns in mind, Chapters 5 and 6 of this Global Report will examine the problem of insecurity of tenure, assessing the scale of urban evictions and their distribution around the world, as well as examining the range of remedies to insecurity of tenure. These remedies include full ownership to varying forms of short- and longer-term occupancy permits. One important issue here involves the identification of housing units and plot boundaries themselves. An interesting experiment has been the street addressing programme undertaken in Dakar, Senegal, where housing units are given addresses, which offers some form of legal recognition and, hence, a degree of security; but having an address does not, by itself, imply legal ownership or unlimited occupancy.⁷²

NATURAL AND HUMAN-MADE DISASTERS

The third threat to urban safety and security addressed in this Global Report is the growing frequency of natural and human-made disasters. The number of major disasters in the world grew from under 100 in 1975 to almost 550 in 2000 (see Figure 1.4)⁷³ The economic costs of natural disasters have also grown, some 14 times more than during the 1950s, with the International Monetary Fund (IMF) estimating material losses to be US\$652 billion during the 1990s (see Figure 1.5).⁷⁴ Studies estimate that a total of 4.1 billion people in the world were affected from 1984 to 2003, with 1.6 billion affected from 1984 to 1993, and the number growing to almost 2.6 billion from 1994 to 2003.⁷⁵ These numbers have increased, as well, with the increased frequency and scale of natural disasters during the 2004 to 2006 period, including the toll of death (220,000 people) and homeless (1.5 million) from the Indian Ocean Tsunami of December 2004 and the Pakistan earthquake of October 2005, which killed 86,000 people and left millions homeless.⁷⁶ It is important to note that 98 per cent of the 211 million people affected by natural disasters annually from 1991 to 2000 were living in developing countries.⁷⁷

The location of these disasters in developing countries is particularly important because of the impact on their already low levels of income and poverty. Data on the distribution of these disaster 'hotspots' is presented in Chapter 7. While the tsunami reduced Indonesia's GDP growth only marginally, by 0.1 to 0.4 per cent, the province of Aceh lost capital stock equivalent to 97 per cent of its GDP. The Kashmir earthquake caused estimated losses of US\$5 billion, or roughly equivalent to total development assistance to Pakistan, a large country of over 150 million people, for the previous three years. The periodic floods affecting Bangladesh and Mozambique continue to wipe out the agriculture and infrastructure in two of the world's poorest countries. These differences in country circum-

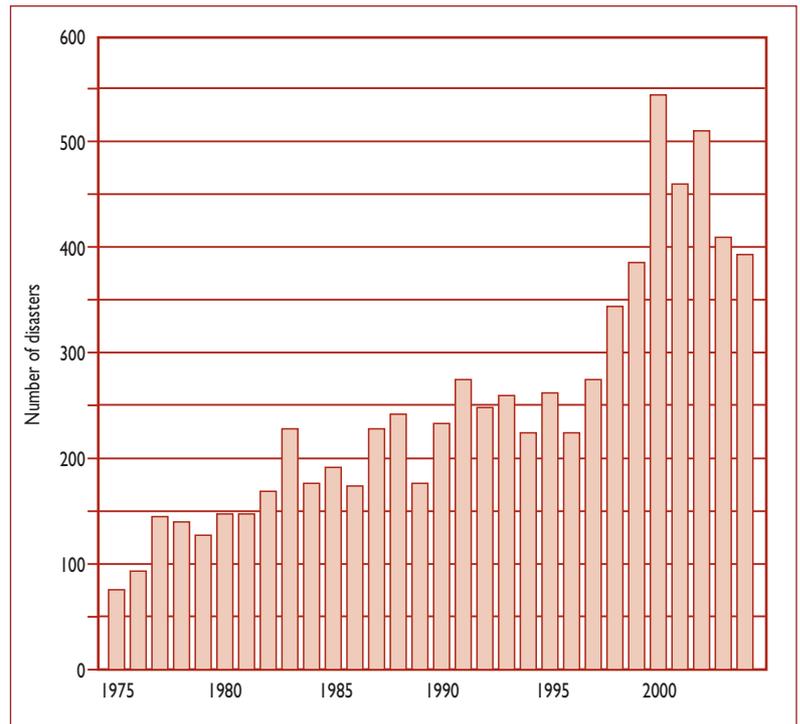


Figure 1.4

Natural disasters are increasing

Source: World Bank, 2006a, p4

stances mean a lot. Landslides in Venezuela and storms in France in December 1999 both caused about US\$3 billion in damages; but France is much richer than Venezuela, with the costs of individual buildings also likely to be higher. Similarly, Venezuela lost 50,000 people, while the death toll in France was only 123.⁷⁸ An Organisation for Economic Co-operation and Development (OECD) study concluded that outside post-disaster financing and donations usually represent less than 10 per cent of the disaster losses, so the event is 'a permanent loss of development momentum.'⁷⁹

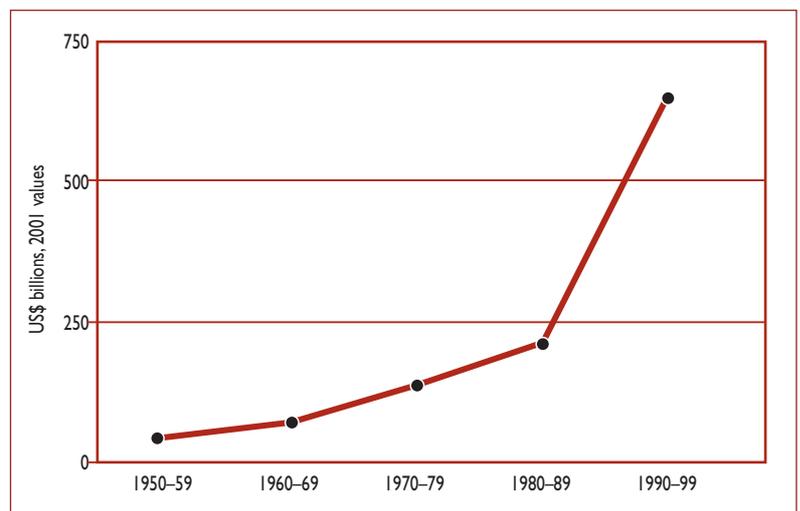
The increasing frequency of these events, therefore, is a matter of great concern. Patterns of climate change resulting from global warming, rises in sea temperatures and resulting weather patterns have all contributed to a 50 per cent increase in extreme weather events from the 1950s to the 1990s.⁸⁰ This includes heat waves that have produced dramatic losses of life in Chicago, France and south India (see Chapter 7). For example, during the last 15 years, more people have died in the US from heat stress than from all

Figure 1.5

The rising cost of disasters

Note: The data is for 'great' disasters in which the ability of the region to help itself is distinctly overtaxed, making interregional or international assistance necessary.

Source: World Bank Independent Evaluation Group, 2006, p5.



Box 1.4 Conventional wisdom about natural and human-made disasters

- Natural and human-made disasters are not predictable.
- They are indeed largely 'natural' (i.e. caused by changes in nature).
- Their occurrence is independent of human behaviour.
- As a result of the above, the major issues for policy concern are preparedness, mitigation, relief and recovery.
- Disasters can occur anywhere; they are largely independent of locality.
- Recovery from disasters means restoring the conditions existing before the disaster, and not addressing the conditions that may have contributed to the disaster.
- The responsibility of government is largely immediate relief, risk management and providing insurance. The response of government is usually to 'manage the problem' and not to undertake steps to remedy causal factors.
- While the responses of government and voluntary organizations are helpful, they are usually inadequate in relation to the scale and depth of needs.
- Political reactions to disasters rarely go beyond 'the blame game', assigning responsibility rather than mobilizing political support for sustainable solutions.

other forms of disasters combined.⁸¹ The heat wave in south India in May 2002 was also very dramatic, with temperatures of up to 50 degrees Celsius. Increased frequency of extreme weather events has been particularly evident in Central America and the Caribbean: Hurricane Mitch affected Honduras and Nicaragua in 1998; landslides and flooding killed many people in Guatemala in 2005; and Caribbean hurricanes during the period of 2002 to 2005 hit

the whole region, particularly Cuba, Haiti, Jamaica, and the Yucatan Peninsula in Mexico.

Conventional wisdom at the global level about natural and human-made disasters, described in Box 1.4, contributes little towards alleviating growing threats to urban safety and security from such disasters.

In contrast, detailed descriptions and analyses of individual natural and human-made disasters suggest insights that directly challenge conventional wisdom and tenets (see Box 1.5).

The conclusions in Box 1.5 suggest alternative policies and approaches to conventional wisdom. Two principal policy messages emerge: first, it is important to better understand how human behaviour contributes to disasters; and, second, more needs to be done to prevent disasters from happening.

These messages also focus more attention on the distinction between natural and human-made (including technological) disasters. Major industrial accidents – such as the Union Carbide accident in Bhopal, India, during the 1980s; the Chernobyl nuclear disaster of 1986 in the then Soviet Union; an oil pipeline explosion in Lagos in 2006; a chemical plant explosion in Jilin, China, in 2005; and a fertilizer plant explosion in Toulouse, France, in 2001 – all demonstrate that technologically induced disasters can occur in all regions of the world, regardless of income level (see Chapter 7). Indeed, analysis of the location of technological disasters concludes that greatest risk has accumulated in

Box 1.5 Disaster experiences that challenge conventional wisdom

- Natural and human-made disasters are largely predictable within historical patterns of probability and within specific regions and locations. These predictable patterns suggest that some regions are highly susceptible to these events, even though the specific location and timing of such events may be predictable only within wider parameters of time. An example would be the likelihood of hurricanes in countries bordering the Gulf of Mexico during the period of June to October each year.
- The locus of the impact of natural and human-made disasters is closely related to pre-disaster conditions – for example, mudslides and flooding are likely to occur in valleys where deforestation has occurred, as in the cases of Haiti and Guatemala.
- Individual large-scale disasters fit into broader regional patterns of specific types, death and injury tolls, homeless and affected, and financial and economic losses.
- The performance of infrastructure – roads, drains, bridges, electricity networks or water supply systems – in withstanding disasters is a good indicator of the pre-disaster capacity of institutions to manage, operate and maintain infrastructure. An example would be insufficient maintenance of the drainage system of Mumbai prior to the annual monsoon season (June to September).
- The risk profiles of increasingly large and dense urban centres of all sizes indicate that the vulnerability of urban populations can be enormous, as demonstrated by the large numbers of victims of earthquake events, such as the 250,000⁸² death toll of the Tangshan earthquake of 1976 in northeast China, as well as the 86,000 deaths and destruction of millions of homes resulting from the 2005 earthquake in Pakistan.
- The profile of victims of disasters shows a disproportionate share of women, children, elderly and disabled populations. This is well illustrated in the case of the Indian Ocean Tsunami, where female victims outnumbered male victims in a number of places, as shown in Chapter 7.
- Natural and human-made disasters are not events, but processes, in which previous historical responses to events contribute heavily to the degree of preparedness and the extent and nature of impacts. The impacts of hurricanes on the Florida coast have been relatively contained as experience has grown about preparedness and evacuation procedures.
- The extent of the impact of a disaster is closely related to the capacity of institutions and the public to learn and adjust from previous experiences. The national mobilization in The Netherlands following the 1953 floods created an enduring model of public education, which is now being applied to preparations to confront the anticipated rise in sea levels due to global warming. The more that people understand likely impacts, the more likely they will prepare for and/or evacuate situations of increasing risk. The differences in evacuation experiences between New Orleans and Houston in 2005 in anticipation of Hurricanes Katrina and Rita demonstrate the importance of public awareness.
- Rather than assume that the impacts of disasters are independent of politics, it is apparent that political will plays a large role in the degree of preparedness, the nature of the short-term public response, and the medium- and longer-term processes of recovery.
- Recovery from disasters offers important opportunities to address underlying causes, problems and institutional incapacities. Reform during recovery from disaster has a greater chance of success than reform during periods of 'business as usual'. This experience is well illustrated by the way in which new women's non-governmental organizations (NGOs) and community groups assumed a larger role in community decision-making in the relief and recovery process following earthquakes in Bursa (Turkey) and Surat (India).

cities of richer countries. This reflects the logic of concentration and economies of scale. The complex patterns of causation affecting technological disasters will be examined in greater detail in Chapter 4.

THE CHALLENGE OF IMPROVING UNDERSTANDING: PERCEPTION, EVIDENCE AND METHODOLOGY

Taken together, the three threats to urban safety and security examined in this report pose many challenges for understanding and action. Of particular importance in this respect are the effects, or implications, of perception, evidence and methodology. While these three threats to urban safety and security are intrinsically different in character, they all share the fact that their underlying causes are popularly misunderstood. Not surprisingly, it is difficult to mobilize sustained political support for their remedy, whether at the international, national or local levels. The assertion, for example, that crime and violence or disasters are frequently predictable is upsetting, even shocking, to the public; yet, evidence presented in this report would support this conclusion. To characterize some disasters as 'disasters by design', in terms of the inadequacies of infrastructure design and weak institutional capacity to address them, has produced important political reactions in places such as New Orleans or Mumbai. Yet, as shown in the previous section, in-depth analyses of cases demonstrate that conventional wisdom is frequently misinformed about the origins and mechanisms of these three threats to urban safety and security.

The role of perception

The perception of insecurity in cities depends largely upon the substantial amount and constant flow of information that urban residents receive from many sources. This information directly challenges the reality that most places in most cities are safe, at least from crime and violence. The media plays a critical role in this process. As noted in Chapter 3, studies in the UK have demonstrated that readers of 'tabloids' were twice as likely to be worried about violent crime, burglary and car crime as readers of 'broadsheets'. The content and style of the media, whether newspapers or television, have an enormous impact on public perception of the conditions that people believe are prevalent in their cities. Whether these perceptions are exaggerated or not, they depend upon individual media sources, how stories are communicated and how public authorities respond.

In the era of global communications, the role of the media is central to both local and international perceptions of safety and security in specific cities: for example, whether it was dangerous to visit New York in the 1980s, but safer today, or whether there is a greater likelihood of crime in Rio de Janeiro or São Paulo today. While terrorism has become a major preoccupation in many cities around the world since

11 September 2001, media attention seems to focus on crime and violence. Globally, media practices seem to build upon promoting a 'culture of fear' in order to sell newspapers or to guarantee television audiences. These practices generate what one report has called 'fearscapes': public spaces where people fear the lack of urban security.⁸³ In contrast, in other cities, the media tries to actively play down such sensational news. Responsible reporting and coverage can play a major role in promoting urban security and safety.

The importance of media was visible at a global scale in the perception of poor governmental response to Hurricane Katrina in New Orleans and the subsequent crime and violence. It was striking for the world to see governmental ineffectiveness and the concurrent outbreak of crime and violence among the poor in New Orleans. A global and, indeed, national audience was given the impression that a significant outbreak of crime and violence had occurred in New Orleans, a subject that is still a matter of debate. There is little doubt, however, that media coverage of some incidents and their repeated televising all over the world certainly created the impression of lawlessness in New Orleans.

At the same time, intensified media coverage also suggested that the impact of Hurricane Katrina had been predicted and could have been largely avoided through better preparedness. It helped to challenge the global conventional wisdom about natural disasters being neither 'human made' nor 'predictable'.

In addition to media, the personal experiences of individuals and households, and word-of-mouth communication among people within and across neighbourhoods, comprise a central process in describing threats to security. Individual experience confirms apparently similar events reported in the media, leading to a broader sense of vulnerability even if statistical evidence does not confirm such a trend.

A potentially useful approach to assess the level of urban insecurity in specific cities and/or neighbourhoods would be to ask the residents of a particular area for their assessment of specific threats. This has been done in some cities struck by a disaster. In most cases, residents are able to use their local knowledge to identify the origins of the problem and where the risks lie. They usually conclude that the event was 'human made'. This is certainly the case in New Orleans, but also in Mumbai.⁸⁴ It also applies quite forcefully in the case of fears of evictions. Municipal authorities in some cities repeatedly issue warnings of eviction against squatters and slum dwellers, regardless of the state of legal appeals and procedures. They create climates of fear and apprehension. In Lima, Peru, there are stories of women fearing to leave their homes vacant in order to avert demolition and destruction of their belongings. Indeed, one of the benefits of secure title in some of the *barriadas*, or slums, of Lima has been the increased mobility of women.

Judged by coverage in the media, crime in some cities is rapidly growing, with the sense of insecurity very present and constantly reinforced by individual stories. Yet, in comparative terms, it is frequently difficult to see how one city is 'more dangerous' than another. For example, by 2000,

The perception of insecurity in cities depends largely upon the substantial amount and constant flow of information that urban residents receive from many sources

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In all three areas – crime and violence, insecurity of tenure and disasters – there are significant problems in finding reliable and useful data

Quantitative definitions in most cases badly need to be complemented by qualitative case studies

citizens in Buenos Aires, a metropolitan area of 12 million people, were outraged by growing crime and, later in 2004, by kidnappings and murder of young men and women. More than 150,000 people marched on the Plaza de Mayo in central Buenos Aires in 2004 to protest insufficient government attention to crime and insecurity. A murder a month at that time had captured the media and fed people's sense of insecurity. But during the same period, Washington, DC, a city of 600,000 people (or 5 per cent of Buenos Aires), had 1.5 murders per day. Nevertheless, the public mood and outcry was much less in Washington than in Buenos Aires. Perception and visibility of the problem is thus a major issue. It may also reflect who is being murdered. In the case of Buenos Aires, the victims were frequently middle-class people; while in Washington, the victims were almost always African-Americans, the crimes were usually drug related, and they occurred in the poorer neighbourhoods of the city: areas that received less coverage in the media.

The role of evidence

Perceptions and expectations of urban insecurity also depend upon the availability of evidence. This chapter has presented examples of the evidence on the three threats to urban safety and security addressed in this Global Report. Here, trends in data are important to assess. In all three areas – crime and violence, insecurity of tenure, and disasters – there are significant problems in finding reliable and useful data. For example, definitions of each of these phenomena vary across cities and countries. They do not involve only big events such as hurricanes, but also small events in daily life: car robberies, muggings, evictions of individual families or traffic accidents. Systems for collecting such data are well developed in developed countries; but even in these cases there are problems of definition and comparison. In developing countries, in the absence of institutions responsible for the effective collection and analysis of statistical data, it is harder to establish data and examine trends.

Each of the three threats to urban safety and security addressed in the report poses specific sets of difficulties with regard to measurement. For the area of crime and violence, these include the following:

- Differences in the legal definitions of various kinds of crime make international comparisons problematic. Similarly, differences occur with regard to recording practices, and precise rules for classifying and counting crime incidents.
- Inadequacy/inaccuracy of official crime data, particularly data recorded by the police. This is partly because police records often depend upon reporting by victims. Consequently, differences in the propensity to report crime will undermine the comparability of the incidence of crime.
- The comparison of crime data across countries or societies that are fundamentally different might ignore key issues that affect levels of reporting. For instance, in certain societies, social norms make it virtually impossi-

ble for women to report cases of rape, while in others, they are encouraged to report. This certainly will affect the accuracy of such comparisons.

- The reporting of crime tends to vary with the level of development. Factors such as the number and accessibility of police stations and the number of telephones will be positively correlated with levels of reporting. In societies where there is distrust of the police by the population, reporting levels are likely to be lower than where the police are trusted.

It has been documented that with the recent reduction in crime within the US, pressure is being placed on senior police officials to manipulate or under-report crime data in order to significantly reduce reported crime in areas under their control.

Attempts to overcome these methodological challenges include the introduction of national incident-based reporting systems, self-report crime surveys and crime victimization surveys. These are discussed in Chapter 3.

Similar problems of measurement exist regarding insecurity of tenure. As discussed in Chapter 5, there are many different forms of tenure, varying not only in the degree of security and duration, but also depending upon individual national legal systems. To measure the lack of security, therefore, poses the challenge of measuring the probability of violations of tenure arrangements, whether, for example, as threats by local government to bulldoze a slum, or whether the action to be counted is the actual bulldozing itself (i.e. whether threats as intentions are to be measured). This is quite complicated in an individual context, but even worse when the effort is intended to be comparative (e.g. to show that one country has more secure tenure for its urban residents than another). While it is possible to estimate the numbers of people with insecure tenure through surrogate indicators, such as occupancy of slums, as discussed in Chapter 5, inferences from such estimates have to be taken cautiously.

These issues also apply with regard to natural and human-made disasters. Normally, the characterization of an event as a 'disaster' or as a 'catastrophe' is made on common sense grounds in terms of the number of people or land area affected. This is a relatively easier data problem than in the case of crime and violence or tenure security because the event to be measured is less subject to different local definitions and meaning. It can be asserted that a flood is a flood, even if the people directly affected by the flood experience it differently and may argue that if the flood is 'catastrophic' for one family, it may be less so for another.

This example leads to the issue of the stage at which quantitative data takes on qualitative characteristics, an issue that relates to the difference between quantitative and qualitative information. Definitions of events vary because they reflect different cultural and contextual perceptions of events and behaviours in different locations. As such, quantitative definitions in most cases badly need to be complemented by qualitative case studies. The latter, however, are complicated to undertake and again depend upon what is to be studied. For example, the last thing the

criminal desires is to be an object of study. The clandestine character of criminal behaviour therefore 'masks' much of the important data about motivation and dynamics of crime itself. The impact of individual crimes on victims is easier to document.

All of this suggests that devoting more effort to understanding the contexts in which challenges to urban safety and security occur would be a significant first step towards improving evidence. Here it should be possible to build on already shared conclusions about existing trends. For example, if it is known that increased demographic growth will create a growing housing shortage in cities in developing countries, there should be no surprise that more and more people will illegally occupy public and private land (some of it vulnerable to natural hazards) because they have no legal alternatives. This will exacerbate the problem of insecurity of tenure. It can be expected that people do not break rules and risk punishment if they have other ways of meeting their needs.⁸⁵ Unless sound policy is developed to increase access to tenure security, it is reasonable to expect more difficulties for the urban poor and the increasing probability of more forced evictions.

Methodologies and public understanding

While perception and evidence can be obstacles to improving public understanding, there are also significant problems in methods of analysis, as discussed later in this Global Report. Methodological problems can be grouped into the following categories:

- defining issues relevant to discussing the three threats to urban safety and security addressed in this report;
- specifying origins and sequences of causation;
- describing agents, whether perpetrators of crime; individuals or institutions affecting security of tenure or carrying out evictions; or individuals or institutions involved in preparedness, mitigation or recovery from disasters;
- identifying victims;
- measuring impact;
- establishing typologies of impact;
- identifying loci of responsibility;
- establishing the basis for comparative analysis; and
- identifying effective forms of prevention or good practice.

All three of these challenges to urban safety and security reflect policy failures, inadequate institutional capacity at both national and local government levels, and insufficient public education for analysis of risk and probabilities of threats to urban safety and security, preparedness, response and remedy. The responsibility for these inadequacies, however, is not strictly limited to urban policies directly concerned with human settlements, and particularly slums,

but also reflects constraints imposed by macro-economic policies and, indeed, the impacts of the global economy.

The issues, however, go far beyond financial resources. They are rooted in ideas, public perceptions of these issues, and cultural values and understandings of how the world works. Everyone thinks that they understand these three issues; therefore, conventional wisdom develops and becomes the basis for public action. Unfortunately, that conventional wisdom is not always correct and may, in fact, inhibit finding effective solutions. Indeed, it remains to be seen whether conventional wisdom itself is correctible by forceful public leadership and effective public education. This Global Report seeks to present an analytic framework and policy recommendations to address these problems.

CONCLUDING REMARKS

This chapter has provided an overview of the three threats to urban safety and security that constitute the theme of this report. It is apparent from experiences in cities around the world that some cities are able to stand up and respond to these threats better than others. Chapter 2 will present a conceptual framework based on the two ideas of vulnerability and resilience, which are useful in explaining threats to urban safety and security and in developing public policy options for enhancing urban safety and security, respectively. Societies can build the needed resilience required to overcome crime and violence, insecurity of tenure and disasters. Some cities such as Medellin (Colombia), Daidema (Brazil), or New York (US) have demonstrated that crime and violence can be reduced. Increased global recognition of the human right to secure tenure represents a large step forward towards reducing tenure insecurity. The success of grass-roots movements in many countries, notably the Slum Dwellers Federation, which started in India, and is now active in South Africa and the Philippines, among other countries, shows that citizen action can play a critical role in this process. Similarly, the experiences of countries after disasters demonstrate that knowledge and education can enhance preparedness. The experience of The Netherlands since the flooding of 1953 shows that it is possible to anticipate flooding through building dikes and investing in institutional and societal learning.⁸⁶ Likewise, the response of Kobe to the 1995 Great Hanshin Earthquake demonstrates how rebuilding can provide the opportunity to achieve a much higher level of security through attention to building methods and a stronger building code.⁸⁷ Cuba has developed effective procedures for quick evacuation of Havana⁸⁸ and other urban areas in the face of repeated hurricanes. Women's organizations in disaster-affected areas have all demonstrated that they can respond to the disaster, but also advance the cause of social and community reform.⁸⁹ Each of these areas of risk and vulnerability also contain what has been called 'spaces of hope'.⁹⁰

While perception and evidence can be obstacles to improving public understanding, there are also significant problems in methods of analysis

Societies can build the needed resilience required to overcome crime and violence, insecurity of tenure and disasters

NOTES

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3 *Ibid*, piv.
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35 WHO, 2004a, Table 1, p14.
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VULNERABILITY, RISK AND RESILIENCE: TOWARDS A CONCEPTUAL FRAMEWORK

This chapter presents a conceptual framework for understanding urban safety and security issues that relies on the concept of *vulnerability*. Vulnerability, as an analytical framework, has during recent years been increasingly used in a number of disciplines, including economics (especially in the study of poverty, sustainable livelihoods and food security), sociology and social anthropology, disaster management, environmental science, and health and nutrition.¹ In these disciplines, vulnerability is often reduced to three fundamental elements – namely, *risk*, *response* and *outcome*, while the last two elements, in particular, are determined by the extent of *resilience* at various levels (i.e. individual, household, community, city and national levels).

This chapter starts by defining and discussing the concept of vulnerability, together with its components of risk, response and outcome, as well as the related concept of resilience. Together, these ideas constitute the building blocks towards a conceptual framework for analysing the three threats to urban safety and security addressed in this Global Report – that is, crime and violence, insecurity of tenure and forced eviction, as well as natural and human-made disasters. This is followed by a discussion of the risk factors underlying these threats to urban safety and security, which are examined at various geographic or spatial levels: global, national, urban, neighbourhood or community, household and individual. Thereafter, the concept of resilience is discussed in relation to the three threats to urban safety and security that constitute the theme of this report. Of particular importance in this section is the identification of the challenges of overcoming institutional weaknesses and building capacity, and how this can be achieved through what might be called ‘pathways to resilience’. A clear understanding of the risk factors at various geographic levels, in relation to the concept of resilience, is essential for the formulation and implementation of effective policies for enhancing urban safety and security. Finally, the role of urban policy, planning, design and governance in enhancing urban safety and security is discussed briefly, thus providing a rationale for the choice of ‘urban safety and security’ as a theme for a Global Report written from a human settlements perspective.

VULNERABILITY AND RELATED CONCEPTS

Vulnerability may be defined as the probability of an individual, a household or a community falling below a minimum level of welfare (e.g. poverty line), or the probability of suffering physical and socio-economic consequences (such as homelessness or physical injury) as a result of risky events and processes (such as forced eviction, crime or a flood) and their inability to effectively cope with such risky events and processes. The logical sequence is that individuals, households and communities are vulnerable to suffering negative outcomes or consequences, and the level of vulnerability (which is sometimes measurable) comes from exposure to risk and the ability or inability to respond to or cope with that risk. Distinctions can be made between physical vulnerability (vulnerability in the built environment) and social vulnerability (vulnerability experienced by people and their social, economic and political systems). Together they constitute human vulnerability.²

As pointed out earlier, the concept of vulnerability is better understood by dividing it into the ‘risk chain’ elements of risk, risk response and outcome.³ *Risk* refers to a known or unknown probability distribution of events – for example, natural hazards such as floods or earthquakes. The extent to which risks affect vulnerability is dependent upon their size and spread (magnitude), as well as their frequency and duration.

Risk response refers to the ways in which individuals, households, communities and cities respond to, or manage, risk. Risk management may be in the form of *ex ante* or *ex post* actions – that is, preventive action taken *before* the risky event, and action taken to deal with experienced losses *after* the risky event, respectively. *Ex ante* actions taken in advance in order to mitigate the undesirable consequences of risky events may include purchase of personal or home insurance to provide compensation in case of theft, injury or damage to property; building strong social networks able to cope with risky events or hazards; and effective land-use planning and design of buildings and infrastructure able to

The concept of vulnerability is better understood by dividing it into the ‘risk-chain’ elements of risk, risk response and outcome

withstand natural hazards such as floods, tropical storms and earthquakes. *Ex post* actions may include evacuating people from affected areas; selling household assets in order to deal with sudden loss of income; providing public-sector safety nets, such as food-for-work programmes; or reconstructing damaged buildings and infrastructure.

From the point of view of policy-making, the challenge with respect to risk response is to find ways of addressing the constraints faced by individuals, households, communities and cities in managing risk. These constraints may be related to poor information, lack of finance or assets, inability to assess risk, ineffective public institutions and poor social networks.⁴ All of these constraints are among the determinants of *resilience*, a concept that reflects the quality or effectiveness of risk response. Resilience has been defined as the capacity of an individual, household or community to adjust to threats, to avoid or mitigate harm, as well as to recover from risky events or shocks. Resilience is partly dependent upon the effectiveness of risk response, as well as the capability to respond in the future.⁵ The concept of resilience, which is discussed in more detail later in this chapter, has been increasingly used during the last decade to characterize societies and institutions that are able to adjust to change or to bounce back from problems.

Outcome is the actual loss, or damage, experienced by individuals, households and communities due to a risky event or risky process – for example, physical injury, death and loss of assets resulting from crime and violence; falling below a given poverty line and loss of income as a result of forced eviction from informal housing or informal sources of livelihood; as well as damage to buildings and infrastructure resulting from natural or human-made hazards. The outcome of a risky event is determined by both the nature of the risk as well as the degree of effectiveness of the response of individuals, households, communities and cities to risky events.

A recent paper has provided a good interdisciplinary working concept of vulnerability at the household level, which can be extended to the individual, community, city and national levels as well:⁶

A household is said to be vulnerable to future loss of welfare below socially accepted norms caused by risky events. The degree of vulnerability depends on the characteristics of the risk and the household's ability to respond to risk. Ability to respond to risk depends on household characteristics – notably their asset base. The outcome is defined with respect to some benchmark – a socially accepted minimum reference level of welfare (e.g. a poverty line). Measurement of vulnerability will also depend on the time horizon: a household may be vulnerable to risks over the next month, year, etc.

One of the most important socio-economic determinants of vulnerability is poverty.⁷ It has even been suggested that, because of their close correspondence, poverty should be

used as an indicator of vulnerability.⁸ The urban poor are generally more exposed to risky events (such as crime, forced eviction or disasters) than the rich, partly because of their geographical location. With respect to disasters, the urban poor are more vulnerable than the rich because they are often located on sites prone to floods, landslides and pollution. The urban poor also have relatively limited access to assets, thus limiting their ability to respond to risky events or to manage risk (e.g. through insurance). Because the poor are politically powerless, it is unlikely that they will receive the necessary social services following disasters or other risky events. In addition, the urban poor are more vulnerable to the undesirable outcomes of risky events because they are already closer to or below the threshold levels of these outcomes, whether they are income poverty or tenure insecurity. Particularly affected in this respect are the least advantaged groups in society, such as women, children, the elderly and the disabled.

Another very important determinant of vulnerability is the capacity of institutions. This influences the *response* and *outcome* elements in the *risk chain* discussed above – in terms of effectiveness and severity, respectively. For the purposes of the conceptual framework currently under discussion, the term *institution* refers to any structured pattern of behaviour, including informal institutions or behaviours, which communities and households may use to maintain their equilibrium in the face of dynamic conditions such as crime and violence or disasters. Given the weakness of formal institutions in many developing countries, it is instructive to approach this question from the level of social organization, rather than only from the perspective of formal institutions such as municipalities, police or emergency preparedness agencies, which are usually the focus of technocratic approaches to these problems. This broader definition thus allows the recognition of 'informal' institutions as legitimate participants and stakeholders in addressing threats to urban safety and security. Both formal and informal institutions can be characterized by their degree of resilience in the face of threats and uncertainty.

Vulnerability may be used as a general framework for conceptualizing and analysing the causal relationships between risk, responses and outcomes of risky events and processes, as in much of the work on sustainable livelihoods and also as used in this report. However, some applications of the vulnerability concept have been quite precise and have sought to measure vulnerability in quantitative terms. The main challenge has been to identify measures of vulnerability to different outcomes of risky events and processes and, sometimes, to find a common metric that is applicable across different outcomes.⁹ Another approach has been that of *vulnerability mapping*.¹⁰ This has been used predominantly in food security and disaster management studies. The objective of vulnerability mapping is to identify spatially vulnerable areas by overlaying maps of different vulnerability factors (or variables) and of population distribution by socio-economic class in order to identify the extent of vulnerability of populations residing in high risk areas.

Clearly, the concept of vulnerability provides a useful framework for understanding the nature of risk and risky

One of the most important socio-economic determinants of vulnerability is poverty

Another very important determinant of vulnerability is the capacity of institutions

Threat to urban safety and security	Risk	Response	Outcome
Crime and violence	Specific risky events are the various types of crime and violence, such as burglary, assault, rape, homicide and terrorist attacks.	Responses may include more effective criminal justice systems, improved surveillance, community policing, better design of public/open spaces and transport systems, improved employment for youth, development of gated communities, and provision of private security services.	Key outcomes include loss of assets, injury, death, damage to property, emotional/psychological suffering or stress, fear, and reduced urban investment.
Tenure insecurity and forced eviction	Specific risky event is forced eviction, while risky socio-economic processes and factors include poverty, social exclusion, discriminatory inheritance laws, ineffective land policies, as well as lack of planning and protection of human rights.	Examples of risk responses at the individual and household levels include informal savings and social networks, and political organization to resist forced eviction and to advocate for protection of human rights. At the institutional level, responses include more effective land policies and urban planning, as well as housing rights legislation.	Outcomes include homelessness, loss of assets, loss of income and sources of livelihood. May also include physical injury or death if eviction process is violent.
Natural and human-made/technological disasters	Specific risky events (or hazards) include floods, earthquakes, hurricanes, volcanic eruptions, technological disasters and war.	Examples of major responses include <i>ex ante</i> measures such as more effective spatial design of cities and the design of individual buildings, as well as home insurance; and <i>ex post</i> measures such as emergency response systems, reconstruction of buildings and infrastructure, as well as rehabilitation of institutions in war-torn countries.	Key outcomes may include physical injury, loss of income and assets, damage to buildings and infrastructure, as well as emotional/psychological stress.

Table 2.1

Vulnerability as a conceptual framework: Risk, response and outcome

events, the impacts or outcomes of risky events, as well as responses to risky events at various levels. Within the context of this report, risk refers to both risky events (such as natural and human-made disasters), as well as risky socio-economic processes (such as crime, violence and the kind of social exclusion that leads to tenure insecurity and forced eviction). Outcomes of risky events and processes are the undesirable consequences of crime and violence (such as loss of assets, injury and death), of tenure insecurity and forced eviction (such as homelessness and loss of livelihoods), as well as of natural and human-made disasters (such as injury, death and damage to property and infrastructure). The chapters in Parts II, III and IV discuss the nature and global incidence of the major risky events, or threats to urban safety and security, addressed in this report. The chapters also discuss the impacts or outcomes of (as well as the responses to) these major threats or risks. Table 2.1 is a schematic representation of how the concept of vulnerability is used in this report as an analytical framework.

Human life is inherently vulnerable and susceptible to a wide range of risks or hazards that can threaten urban safety at the individual, household, community or neighbourhood, city and national levels. While the sources of human vulnerability are multiple, they can essentially be divided into three broad categories:

- The first category includes *chronic vulnerabilities* associated with biological necessities such as food, water, shelter and health. People must have these needs met to some minimal degree in order to survive. Significant disruptions to satisfying these needs can result in ill health and death. In many cases, these vulnerabilities are persistent and of a long-term nature.
- The second category includes *contextual vulnerabilities* arising from the social, economic, political and environmental contexts of human life, including the density of interactions between and among people, which surround the life of one individual. These can include harm from ethnic violence, loss of income and employment due to deindustrialization, drug-induced crime, or

unjust policies of government to bulldoze slums, thereby increasing insecurity of tenure. While these vulnerabilities are the consequences of contextual processes, they may take the form of infrequent incidents or events.

- A third category includes vulnerability from major unusual, but periodic, events such as natural or human-made disasters, including hurricanes, earthquakes or wars. They are distinguished from the second category by their magnitude and depth of impact. As suggested in the introduction to Part IV, they are notable by their scale of loss, which exceeds the resilience, or overwhelms the ability, of a household, community or city to cope.

Assessments of threats to urban safety and security must include all three categories and, indeed, some are interdependent, such as satisfaction of basic needs requiring income and employment to sustain access to those services. The key distinction here, however, is between *underlying chronic conditions* resulting from the level of development and per capita income of countries and the frequency of either minor or major *significant or catastrophic events* that occur with low probabilities in the same locations. Analytically, the conceptual frameworks for these categories have been traditionally distinct, although experience, especially with the application of the vulnerability framework, demonstrates that they are increasingly interactive. An example is that many communities face land tenure conflicts in their recovery from disasters (see Box 2.1). A tenure insecurity problem, such as forced eviction, may result in serious violence, while a natural disaster may result in crime and a general breakdown of law and order.

It is now understood that the extent of the impact of catastrophic events depends upon the presence and force of chronic underlying conditions. In this sense, in many (although not all) cases, these events may be more of a process than an event. A clear example is the performance of infrastructure during a disaster since this is a strong indicator of institutional capacity, as is the maintenance of order by

The extent of the impact of catastrophic events depends upon the presence and force of chronic underlying conditions

Box 2.1 The 2004 Indian Ocean Tsunami: Victims and land tenure

Land tenure is another institution which, if weak or corrupt, can increase vulnerability to hazard. For individuals or families living in insecure land tenure situations (e.g. squatting on privately owned land or on land for which a title does not exist), once displaced they may be unable to return. For some people, assistance to rebuild may require documentation, or one or more other parties may claim that the land is theirs. Beyond being poor and living in structurally weak homes close to the sea, many tsunami-struck communities lived on government or privately held land, or land with multiple claims. Land grabs plagued coastal communities where undocumented and uncertain land status provided government and private landowners opportunities to evict residents. In other cases, ownership documents were destroyed and physical property lines were non-existent. Still others faced discrimination by regulations instituted post-tsunami under the pretext of reducing vulnerability, such as banning rebuilding within certain distances of the sea.

These situations plague thousands of tsunami survivors across the affected region; but many communities are seeking ways of rebuilding their lives, including improving land tenure security. New strategies are emerging across the region. To begin, many communities are simply going back to their land to rebuild, even without permission, or while the land is still being disputed.

Source: Rowbottom, 2007

This was the strategy of the Aceh's *Udeep Beusaree* network of villages and Thai communities, who then used their solidarity and occupation as a negotiation tool. These and other communities also mapped their settlements, collected information on historical ownership and prepared redevelopment plans. Two important solutions have transpired and are a result of communities coming together, as well as networking with other communities: land sharing and collective land tenure arrangements. Land sharing entails disputed land being shared by both parties. The community rebuilds on one portion of the land with legal and secure rights, and the landowner develops the other portion commercially. Collective land tenure includes collective leases, collective title and collective user rights. The community is the unit of ownership/lease holding, which can fend off challenges and manipulation more easily than individuals can. Plots cannot be sold independently. In this way, solutions are being found to institutional problems that have made communities vulnerable for generations. Many previously vulnerable residents now have a base from which to lobby government and to fight private interests. With legal rights to their land, they will be able to more securely invest in their homes and property, improving their human and physical security, and more easily access assistance in the event of hazardous events.

normal police presence. Similarly, studies of the health impacts of urban environmental problems are closely tied to the availability and condition of infrastructure. Indeed, they show patterns of causation that clearly demonstrate how various types of infrastructure can alleviate specific health risks.¹¹

RISK FACTORS AT DIFFERENT LEVELS OF ANALYSIS

As introduced in Chapter 1, the threats to urban safety and security addressed in this Global Report are closely linked to many factors at different geographic levels of analysis. In order to identify the location of risks as well as the multiple levels of causation, this section examines risk factors at the following analytic levels: global, national, urban, neighbourhood or community, household and individual. Special attention is paid to underlying patterns of causation, highlighting the cumulative impact of the identified factors, as well as their interdependence in several spheres of activity: social, economic and environmental. As many studies of urban safety and security suggest, there are multiple forms of interaction that operate simultaneously to create risks and condition the vulnerabilities experienced by nations, cities, communities, households and individuals. The conceptual task is how to describe and distinguish these different interactions and to assess their relative weights. In this regard, it

is important to stress that factors beyond the urban level have considerable impact on conditions of urban safety and security.

Global forces

Three aspects of global forces are likely to have significant impacts on urban safety and security: the global economy and, particularly, financial markets; the global environment and the likely impacts of climate change; and increased uncertainty due to the interaction of global forces and the consequent weakening of the capacity of national and local institutions to manage risks and reduce vulnerabilities. Each has direct and indirect impacts on the three threats to urban safety and security addressed by this report: crime and violence, forced evictions and insecurity of tenure, and natural and human-made disasters.

■ The global economy

The processes of globalization of the world economy have significantly reduced the independence of national and local economies. The formation of a global capital market, the diffusion and dominant role of technology in information flows and decision-making, and the liberalization of these flows through the application of neo-liberal economic policies at the global and national levels have introduced new actors into the world of national and local policy-makers. No longer can governments manage their economies (i.e. interest rates, flows of private investment now known as foreign direct investment, trade projections, and commod-

Threats to urban safety and security ... are closely linked to many factors at different geographic levels of analysis: global, national, urban, neighbourhood or community, household and individual

ity and energy prices) without daily attention to global markets and the behaviours of major players such as China, the European Union (EU), the Organization of the Petroleum Exporting Countries (OPEC), Japan and the US. The importance of decisions in distant locations is reflected in the 24-hour operations of global and national institutions and their increased surveillance of the behaviour of overseas markets. No longer are these developments monitored only by ministries of finance, central banks and major financial institutions on Wall Street, the City in London or the stock market in Tokyo, but they are actively included in national and local public and private economic decisions on a daily basis.

Global information flows do not necessarily bring increased stability. Global markets have carefully followed developments in individual national economies and produced significant shared reactions, such as capital flight, or alternatively, in-pouring of funds in search of quick profits following the Asian financial crisis of 1997 and later in Brazil, Russia and Argentina. These effects are considerable and are reflected in dramatic changes in country risk ratings. Finance ministers may seek to protect their economies from such processes; but this ability to manage risks and uncertainty is limited in an increasingly interdependent world.

An important aspect of this contagion is increased volatility. There is now a clear recognition that the volatility of the global economy creates additional uncertainties and insecurities for national and local economic actors.¹² This volatility does not just have impacts on financial markets, but can also have specific impacts on, for example, whether private water companies will invest in extending water supply services to underserved neighbourhoods on the peripheries of cities.¹³ Increases of 0.25 per cent in world interest rates can upset investment plans at the city level. This fact becomes particularly salient when considered in light of the additional 2 billion expected urban residents by 2030.

If national and local shortages of finance for urban shelter and infrastructure were serious problems before the globalization of financial markets,¹⁴ these shortages will be increasingly exacerbated by the interdependence and volatility of these markets. There is great sensitivity of urban investment decisions to changes in interest rates. When a decision to invest in housing or shelter in Guadalajara or Istanbul is connected to whether interest rates increase as a result of decisions by Chinese monetary authorities to reduce inflation in China, new degrees of uncertainty have begun to affect local markets and the quality of urban shelter and infrastructure.

Global finance is already affecting the cost and availability of capital for investment and job creation in urban areas. These pressures have direct impacts on many aspects of the national and urban economy. For example, changes in the cost of capital can affect public investment programmes from urban infrastructure to crime prevention, in both cases affecting the safety and security of urban residents, as well as prospects for employment and incomes, particularly for the poor whose incomes are closely tied to the demand for

unskilled labour. Changes in interest rates also directly provoke changes in the prices of housing and land, and thus affect the circumstances of security of tenure for the poor. Positive and negative changes in urban inequality and economic opportunity, in turn, provoke new forms of crime and violence. A study of macro-economic changes and urban poverty in Latin America in the late 1990s showed that while the incomes of middle- and upper-income groups are sensitive to upturns in macro-economic performance, those of the urban poor drop disproportionately lower in times of recession and improve at a much slower rate than do those of middle- and upper-income groups.¹⁵

A study on these patterns at the national level in the US in 1999 showed how cumulative causation operates through marginal changes in interest rates, translated into housing prices and rent levels, local finance, school expenditures and the social conditions of neighbourhoods.¹⁶ When global forces are added to the mix, they will be increasingly present at local levels.¹⁷

■ The global environment

Another global force that directly affects local safety and security is the global environment. Scientific evidence of global warming and climate change is helping to explain the increased frequency of extreme weather events and changes in the normal patterns of regional and national weather (see Figure 2.1). These events, such as hurricanes, violent storms, increased rainfall in some locations and decreased rainfall in others, all serve to upset historical patterns of cultivation and economic activity, as well as place new physical strains on infrastructure. These have been well illustrated by the effects of El Niño in Latin America, which has brought drought in some areas and intensive rainfall in others. In both cases, agricultural output has been damaged in Argentina and the Andean countries. The distinctions between so-called category 3 and 4 hurricanes in the Gulf of Mexico that were previously largely meteorological notions with technical implications for engineering standards for levees have now become household words as the public learns more about what happened in New Orleans and what will happen with subsequent hurricane seasons.

Scientific and public debate on climate change has intensified during the last several years as scientific evidence of climate change has been confirmed in many forms, as a recent observation states:

*Multiple lines of evidence indicate that the Earth's climate is nearing, but has not passed a tipping point, beyond which it will be impossible to avoid climate change with far-ranging undesirable consequences.*¹⁸

The increased frequency of severe weather events, however, is only part of the global environment threat to safety and urban security. Global warming contributes to the melting of ice caps and glaciers and results in rising sea levels. These phenomena have recently been described in the following terms:

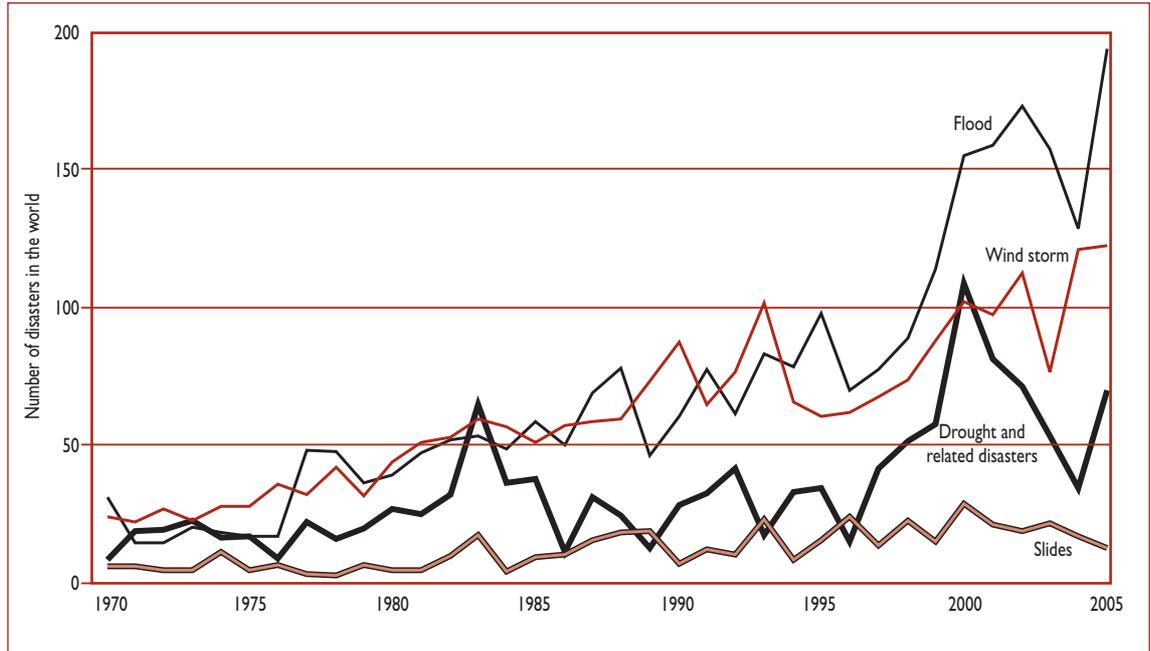
The volatility of the global economy creates additional uncertainties and insecurities for national and local economic actors

Scientific evidence of global warming and climate change is helping to explain the increased frequency of extreme weather events and changes

Figure 2.1

Global warming and meteorological disasters

Source: United Nations International Strategy for Disaster Reduction, Disaster Statistics, www.unisdr.org/disaster-statistics-occurrence.pdf



*Kilimanjaro's ice cloak is soon to disappear, the summertime Arctic Ocean could be ice free by century's end, 11,000-year-old shelves around Antarctica are breaking up over the course of weeks, and glaciers there and in Greenland have begun galloping into the sea. And the receding glaciers, at least, are surely driving up sea level and pushing shorelines inland... Rising seas would push half a billion people inland.*¹⁹

The declining effectiveness of government and public authority is a potentially devastating result of global environmental trends

This frightening prospect makes flooding in Mumbai or New Orleans appear quite limited in impact and significance. A large share of the world's total stock of wealth, including fixed public assets such as infrastructure, private investments in production capacity and cultivation, not to speak of the heritage of cities themselves as the crucibles of civilization, are located in coastal areas (see Figure 2.2). The issue of sea-level rise therefore deserves special attention. Recent estimates show dramatic economic losses in countries as diverse as Japan, Egypt and Poland, all in different ecological zones and climates, but all facing potential impacts on millions of people and losses in the many billions of US dollars.²⁰

Table 2.2

Distribution of world population as a function of distance from the nearest coastline

Source: Gommers et al, 1998

Distance from the coast (km)	Population (million)	Accumulated population (million)	Accumulated percentage
Up to 30km	1147	1147	20.6
>30 to 60km	480	1627	29.2
>60 to 90km	327	1954	35
>90 to 120km	251	2205	39.5
Beyond 120km	3362	5567	100

In this context, these global environmental forces completely change the meaning of urban safety and security. Table 2.2 presents some of this data. One can wonder when 'the rich' will begin to buy 'safe' inland locations and how such changes in investment will affect normal patterns of urban life. Such change does not occur overnight; but one

can imagine that a few major events could easily spark behaviour changes on a worldwide level. Speculation about the impacts of such changes is beyond the scope of this Global Report; but it deserves attention from researchers.

Global uncertainty and weakening of national institutions

A third type of global factor is the increased uncertainty arising from the interaction of global forces and the consequent weakening of national and local institutions to manage risks and reduce vulnerabilities. Uncertainty reduces the capacity to plan and to prepare for change. When the probability of events does not depend upon the actions of the party likely to be affected, or in this case national or local governments, it weakens the status and authority of government when it seeks to manage risks and reduce vulnerabilities. The public at large can ask why they should accept the advice of government if the latter does not have either better information about a probable event or any means to mitigate its impact. In fact, anticipation is the first step towards mitigation and, therefore, anticipation does reduce risks and vulnerabilities by removing the role of surprise and allowing the possibility of some degree of preparedness.

The declining effectiveness of government and public authority is a potentially devastating result of global environmental trends. The constructive responses and solidarity among victims of flooding in Mumbai in July 2005 may be interpreted as socially and culturally responsible behaviour in the absence of effective action by the Maharashtra State Government and the Municipal Corporation of Mumbai. The opposite seems to have occurred in New Orleans as federal, state and local authorities were unable to protect the New Orleans population, and particularly the poorest people among them, following Hurricane Katrina in 2005.²¹ In both cities, a legacy of the disaster is growing scepticism about the capacity of public institutions to solve problems. This can easily become a self-fulfilling prophecy as public officials

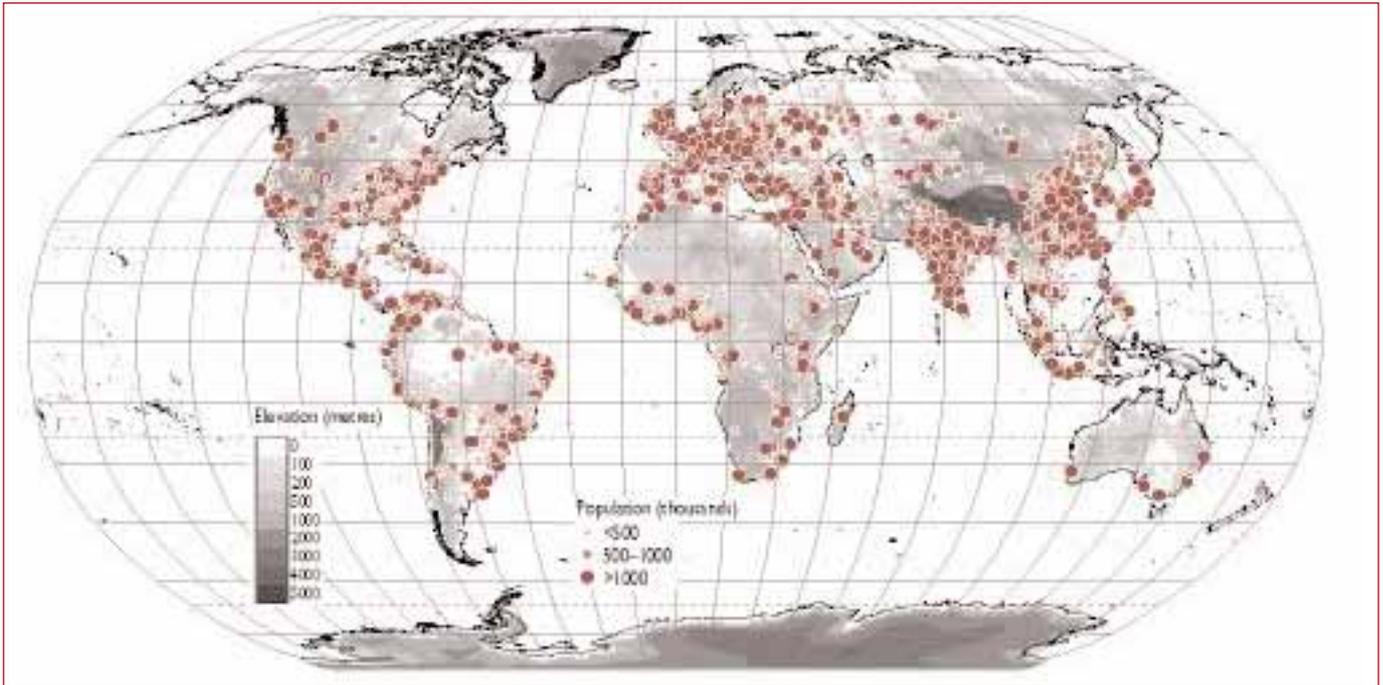


Figure 2.2

Location of major population centres

Source: United Nations, 1997

simply 'give up' in the face of risks they feel they are unable to manage. The latter behaviours fall within the self-destructive behaviours of institutions and societies which have declined and, in some cases, disappeared.²² Both of these cases, however, demonstrate the importance of local culture and civil society, subjects that will be treated later in this chapter – as well as in Chapters 7 and 8 – in relation to the issue of resilience.

It is also important to stress that the responses of government to disasters are now themselves globally visible. The leadership of the mayor of New York after 11 September 2001 was widely praised and considered as an example of effective government. In contrast, the mayor of Mumbai, at risk of losing his job after having been sharply criticized for the Mumbai Municipal Corporation's weak response to the monsoon flooding in July 2005, remarked some months later, after the world saw the poor performance of US institutions in responding to Hurricane Katrina in New Orleans: 'Thank heavens for New Orleans.' Confidence in public institutions is therefore itself at risk, with major implications in other arenas as well. Dozens of articles appeared in the Indian press asking why public institutions had not been better prepared to deal with the extreme impacts of largely predictable monsoon rains.²³

Indeed, there is evidence that political changes are common following disasters as questions are raised about the effectiveness of government responses and the capacities of leadership. Some of the cases of political change following disasters, including Turkey, Mexico, Chile, Nicaragua and Guatemala, are presented in Chapter 7.

These three examples of global forces – the impact of the global economy, the global environment, and the interaction of global uncertainty with the weakening of national and local institutions – are illustrative of the linkages between global, national and urban levels. Each demonstrates how vulnerability to threats to urban safety and security can be affected by forces that previously were not considered to be

so significant in reducing local risks. The global level, therefore, must now be considered in the mapping of urban risk.

National level

A wide spectrum of national factors affects vulnerability to problems of urban safety and security and, specifically, the problems of crime and violence, security of tenure, and natural and human-made disasters. These problems start with the level of income of individual countries and societies. In general, data shows that richer countries have lower levels of crime and violence, although there are many exceptions to this pattern, such as the higher homicide levels in the US or in Russia. Chapter 3 presents evidence on the incidence of different types of crime and violence by region of the world and examines the correlations with various socio-economic, political, demographic and cultural factors.²⁴ The importance of national cultural factors deserves special mention because, for example, the availability and use of firearms is highly cultural, as illustrated in the large differences between the UK, the US and Canada.

Insecurity of tenure and the likelihood of illegal occupancy of public and private land are also highly negatively correlated with national income. So, too, is vulnerability to natural and human-made disasters, as demonstrated by the fact cited in Chapter 1 that 98 per cent of the victims of disasters since 1990 have been in developing countries. National per capita income, therefore, seems to be a robust and significant, if not entirely determinant, proxy for vulnerability to these three threats to urban safety and security. However, this statement also requires some qualification reflecting local cultural differences across cities.

This finding also correlates strongly with the general finding that many attributes of welfare – longevity, literacy, health status, housing quality, access to water supply and sanitation, among others – correlate positively with national

In general, data shows that richer countries have lower levels of crime and violence, although there are many exceptions to this pattern

National income and national development of countries are strong predictors of vulnerability

It is important to also understand how macro-economic policies concerning expenditures on infrastructure, social services, police and emergency services play critical roles

per capita income. Each of these indicators reflects both the resources available in the societies to provide needed services and the institutional capacity to formulate and implement effective public policies. They also correlate (negatively) with levels of absolute poverty, as well as (in many cases) levels of inequality and exclusion.

The following question, therefore, arises: when national per capita income is held constant, how can differences in performance in reducing vulnerability to urban safety and security threats between two countries be explained? This issue is addressed in Chapter 3. This type of question, well answered in the context of the housing sector, suggests the importance of comparative analysis in developing theories of performance on these issues.²⁵ In the case of housing, local policy variables such as building codes, zoning and the processes to obtain construction permits all have specific impacts on the performance of the housing sector in individual cities. This is well illustrated by the comparison between Bangkok and Kuala Lumpur, where the first city is considerably poorer than the second, but has nevertheless produced a greater quantity of housing at reasonable quality and cost, all due to the differences in the regulatory framework for housing.²⁶

This suggests that while levels of national income and national development of countries are strong predictors of vulnerability, they are necessary, but not sufficient, conditions to explain local performance in managing challenges to urban safety and security. As the list of ‘conventional wisdom’ in Chapter 1 (see Box 1.4) suggests, these challenges are profoundly linked to their urban contexts – whether in relation to environmental, institutional, economic or social dimensions. The level of penetration of ‘national’ factors into urban performance depends upon the sector (e.g. criminal justice or infrastructure management), as well as the country and the historical development of its institutions. Former French colonies in West Africa such as Côte d’Ivoire or Senegal continue to be institutionally centralized, where the policies and approaches of ministries of interior will determine the responses of local institutions. The weight of central institutions is likely to be less in countries with more decentralized traditions such as Ghana, Nigeria or Tanzania.

■ Influence of national macro-economic factors

For the purpose of this Global Report, within the national level, the role of the macro-economy also deserves further specificity with regard to the impacts of certain policies directly affecting urban safety and security. While the previous discussion linked urban security to levels of national income and development in a general sense, it is important to also understand how macro-economic policies concerning expenditures on infrastructure, social services, police and emergency services play critical roles in this arena. As noted earlier, urban security can also be understood as a ‘public good’ generated by explicit public policies, investments and current expenditures.

Countries and localities without such expenditures for these public goods will be more vulnerable to threats to

safety and security addressed by this report. For example, recent research in Africa shows that 29 per cent of businesses surveyed reported that, in the absence of effective policing, crime was a significant business constraint – 50 per cent more than the global average.²⁷ Similar studies have been carried out in Jamaica and Papua New Guinea, as well as in cities in parts of the US and the UK.²⁸

Such public goods, however, are not so easily created. Indeed, in cities experiencing rapid demographic and spatial growth, it is frequently difficult to convince government authorities that public goods – whether environmental quality or green space – are priorities for public expenditures. These can be reinforced when supported by the broader frameworks of human security and human rights. The ability to provide public goods, however, depends not only upon juridical frameworks, but is also a direct result of the macro-economic patterns of savings and expenditures.

The issues of crime and disaster preparedness are very interesting in this regard. When crime becomes a national issue, or is perceived as a macro-economic problem in terms of its inhibiting impact on tourism and direct financial losses, as in the Mexico City case described in Chapter 1, there is a greater likelihood that the Ministry of Finance will allocate funds to public institutions responsible for fighting crime. Similarly, when countries in the path of recurrent hurricanes in the Caribbean or monsoon rains in South Asia realize that these events have major macro-economic impacts, they will invest in preparedness to reduce these impacts, as the effectiveness of Cuban preparedness for hurricanes and subsequent relief measures demonstrate.²⁹ Examples also exist in the field of land tenure, for example with respect to stabilization of the location of urban slums. Rather than evict large numbers of people with the attendant economic, financial, social and political costs, national and local authorities can work with communities, private landowners and public authorities to find solutions. While the international community may have a useful role to play in these issues in some circumstances, ultimately the allocation of resources for these purposes is a national macro-economic responsibility.

These examples raise the question of what would be reasonable levels of expenditure to address these challenges. How much, for example, can a developing country afford to maintain urban safety and security? Given the high financial and economic costs of disasters as estimated by the World Bank (presented in Chapter 1), as well as the costs of evicting large urban communities, it would seem that governments should consider allocating considerable investments to strengthening preparedness and urban planning. The economic rates of return of such investments should be very high. One study of costs and benefits of preparedness for disasters concluded that losses could have been reduced by US\$20 billion if only US\$40 million had been invested in mitigation and preparedness.³⁰

The issue of who finances such investments, however, also needs to be examined. What is the balance between international, national and urban responsibility for maintenance of urban safety and security? In conditions of disasters there is generally the expectation that national governments

will provide some relief services and also contribute to recovery. But their ability to do so depends both upon national fiscal capacity, as well institutional and technical capacity. Nevertheless, in many cases the causes of these problems may lie outside national boundaries – for example, from political problems such as the settling of political refugees from Darfur in Chad or Rwandans in Congo. The issue of refugees also intersects with the issue of security of tenure because, in many cases, refugees occupy land on a temporary basis, and often for extended periods of time, regardless of its legal status.

A similar case is the losses from periodic floods in Mozambique even though the rivers originate in neighbouring countries. As noted in Chapter 1, even with major international assistance, aid levels have never covered the costs of more than 10 per cent of the losses. This conclusion suggests that countries, particularly the poorest, will have to simply absorb these losses and accept that progress in improving the welfare of their populations will once again be held back. ‘Living with the floods’, a phrase from the public debate in Mozambique, reflects this resignation in the face of the repeated force of nature.³¹

As noted earlier, from a macro-economic perspective, urban safety and security are also private goods that are consumed by individuals and households. Indeed, there is growing evidence that safety and security from crime in some cities and from natural disasters in other cities are major private priorities for many households. Comparative studies of the effects of structural adjustment in developing countries demonstrate that the impacts of macro-economic change through changes in prices, job opportunities and public expenditures have enormous cumulative impacts on urban households, and particularly the poor. A comparative study of Guayaquil, Manila, Lusaka and Budapest demonstrated how these impacts increased the vulnerabilities of the poor by undercutting important household and community assets,³² including labour, economic and social infrastructure, housing, household relations, and social capital at the community level. As macro-economic conditions deteriorated and poverty deepened at the community level, urban security became a high priority for poor households as crime and violence dramatically increased, from domestic violence to drug-related crime.

An additional aspect of crime that affects the macro-economic level is the issue of corruption, which is addressed in Chapter 3. Extensive evidence now exists on the impact of corruption on macro-economic performance. Indices of corruption developed by Transparency International have been extended through surveys of individual regions and countries to assess the impact of perceptions of corruption on business practices and levels of investment. Business Environment and Enterprise Performance Surveys are being conducted by the European Bank for Reconstruction and Development, as well as the World Bank, since 1999 in 27 countries, mostly in Central and Eastern Europe and the countries of the former Soviet Union.³³ Analytic work in other regions has advanced as well, with institutions such as the World Bank hardening its approach to this controversial issue.

If corruption refers mostly to crime involving public institutions and officials, another prevalent and growing criminal phenomenon affecting the macro-economic level is organized crime, which is discussed in Chapter 3. While it is difficult to assess the scale and penetration of organized crime into national economies, there are some areas, such as the drug trade, where organized crime is a major force. One study by the United Nations Drug Control Programme estimated that US\$1 billion of illicit capital circulates every day in the world’s financial institutions.³⁴

The urban level

The next level of analysis at which urban safety and security can be assessed is the urban level itself. The essence of the urban is its relation to context: physical, spatial, environmental, social, cultural, economic and political. The meaning of urban safety and security is highly contextual because, while it is indisputably affected by global and national factors, the most institutionally meaningful unit of analysis, as well as arena for action, is the urban region or city.

One of the discourses on urban safety has been the design of ‘defensible space’ (i.e. how cities and neighbourhoods can be designed to reduce the factors that contribute to crime and violence itself). This includes neighbourhood layouts, the integration of public space with other uses, such as shopping, in order to increase circulation of people at various times in the day, or how transit systems can reduce the isolation of specific transit stops and locations. Extensive studies have been undertaken in the US and major European cities on the relation between transit and security.³⁵ These issues are discussed in some detail in Chapter 3.

Security of tenure is an interesting case at the urban level because the occupancy of land is a central fact in the urban landscape, with implications for poverty, inequality, human rights and discrimination against specific groups, including non-enforcement of internationally recognized rights, as well as national law. The urban context is important here, as illustrated in Chapter 6, which shows how various countries have addressed insecurity of tenure and the safeguarding of human rights. The South Africa case, for example, shows that formalization may be hard to achieve even with legislation, and that such formalization can impose significant costs on the poor. Brazil, too, has made an effort to enact legislation; but the scale and depth of both urban poverty and intra-urban inequality inhibits increasing access to security of tenure. The Indian case is also contradictory, with rights protected by law and the courts; yet, state and local government policy is much more politicized and influenced by political and economic interests, such as the real estate industry.

As noted earlier in this chapter, vulnerability to disasters at the urban level is unevenly distributed and reflects historical settlement patterns, as well as varying degrees of preparedness and attention given to different classes of people. It has been observed that the New Orleans experience demonstrated, to a global audience, visible discrimination in the immediate responses to the security needs of African-American, white and Creole residents, in

Urban safety and security are also private goods that are consumed by individuals and households

While it is difficult to assess the scale and penetration of organized crime into national economies, there are some areas, such as the drug trade, where organized crime is a major force

One of the discourses on urban safety has been the design of ‘defensible space’

Box 2.2 Urban land-use processes and dynamics

A private investor in a city of 3 million people builds a factory in 1960 to produce a chemically based product. Following municipal zoning procedures and industrial safety regulations, the factory is located on the far periphery of the metropolitan area, outside the borders of the central municipality, allowing the noxious fumes to blow far away from any residential areas. Each year, however, the expansion of the built-up urban area reaches closer to the factory.

Eventually, the land near the factory becomes an unregulated residential area for poor households who had been evicted from downtown locations. Having been evicted once, the poor wisely do not invest heavily in their homes. Similarly, the poor municipality on the periphery of the city has no interest or feels no political pressure to provide water supply and other infrastructure to the illegally occupied area. Households drill their own wells or use water from nearby waterways, both of which are probably polluted by the factory. The incidence of disease and other health problems is significant, affecting employment and incomes. A consequence is that the area becomes known for drug dealing and crime.

By 1980, however, the location of this residential land is increasingly considered to be in the first ring of the metropolitan area or central zone of a rapidly expanding city. The now wealthier and politically more important municipality then decides to evict the poor, clearing out 'undesirable elements', and announces that it will provide infrastructure for a 'proper' residential neighbourhood. However, having failed to secure international funding, on environ-

mental and other grounds, the municipality had to mobilize resources for this from the area's new and wealthier residents. Five years later, the factory is surrounded by a mixed residential area of 50,000 people working in the formal sector. Residents form a strong neighbourhood organization to ensure the security of the area and, among other tasks, to keep the drug dealers out.

In 1990, with machinery in the factory now 30 years old, there is a serious industrial accident with escaping chemical fumes killing hundreds of people living near the factory grounds and affecting thousands in the neighbourhood. Fortunately for the poorest households who had been forced to leave the area ten years earlier, they have escaped the effects of the accident and live in a squatter area 16 kilometres to the west of the factory. Many residents of the neighbourhood are gravely injured and are unable to work. Neither the company nor public authorities at the municipal or national level are able to provide much compensation to cover medical costs or unemployment insurance.

Postscript. In some European capital, thousands of kilometres away, the head of the Urban Development Division of the International Aid Agency thanked his or her lucky stars that, despite the intense lobbying efforts of the government of the city, the housing project had been turned down for financing in 1980. Perhaps there will now be an opportunity for a new development project including environmental cleanup, showing the agency's new 'green awareness'.

particular, as well as those of the elderly and the disabled, before and at the time of Hurricane Katrina and later in relief and recovery efforts.³⁶

The cases of Mumbai and New Orleans are also very instructive about general patterns of the complex multiple factors that operate at the urban level. Vulnerabilities appear to be cumulative; yet they also interact with one another, exacerbating safety and security. For example, the poor occupy the most hazardous sites in most cities, such as the *gecekondu*s and *barrios* on the hillsides of Ankara and Caracas, respectively, or in the *kampung*s along the canals in Jakarta, or between the railway lines in Mumbai. They are unable to find 'safe' land in cities where land prices are high or where public policy is not intended to allow the poor to occupy central or desirable locations. So they are forced to accept the risk of physically dangerous sites in order to avoid the risk of forced evictions if they settle in other 'safer', but prohibited, locations. In the event of a flood, their homes on the banks of canals are the first to be flooded, with the risk that they will lose everything.

These patterns explain, for example, the origins of settlements such as Mathare Valley, an undesirable location in Nairobi, or in the desert areas of metropolitan Lima. Nezahualcoyotl, a large settlement distant from employment in central Mexico City, initially grew spontaneously in unhealthy, dusty and dry conditions, but is now home to more than 2 million residents just across the border of the Federal District of Mexico City.³⁷

The development of these settlements is essentially determined by the distribution of risk in space. Aerial

photography of most cities vividly shows that the poorest and most fragile quality of housing and infrastructure is coincident with physical and natural risks. If household decisions about urban location are generally determined by price and access, for the poor these decisions increasingly include weighing the probability of risks from different forms of hazard. It is possible to identify a typology of preferences among the poor in individual cities according to such hazards, from living near waste disposal facilities, to living near waterways, to settling between railway tracks, to choosing between air pollution and the likelihood of injuries to children playing near passing trains or traffic.

This distribution of risk in space is intensified by the growing proportion of slums in cities, such as Mumbai, with more than 6 million people living in slums,³⁸ or São Paulo, Lagos and other cities, where slum dwellers are more than half the population. As their number increases, the poor seek any available locations that offer cheaper access to employment opportunities, including on environmentally marginal land that no one else wants. A particularly dramatic example of this scenario is the estimated 500,000 people living in the City of the Dead in Cairo.³⁹ Cultural or religious taboos about occupying cemeteries are at risk of being overridden in many cities.

When considering the urban level as the unit of analysis, it is easier to include the role of various forms of externalities that operate at the urban and the metropolitan scale. The prototypical fictitious example presented in Box 2.2 illustrates the various dynamics and processes found in

Aerial photography of most cities vividly shows that the poorest and most fragile quality of housing and infrastructure is coincident with physical and natural risks

many cities, involving shifts in land-use patterns over time and exposure to industrial hazards.

The fictitious story in Box 2.2 unfortunately captures a set of realistic cumulative dynamics through which efforts to manage urban safety are overwhelmed by shifting maps of risk over 30 years. The capacity of public institutions to manage these processes is limited, although the decision to build a residential neighbourhood close to a factory could be questioned. However, given the property values of land inside the first ring of the metropolitan area, the housing project made sound economic sense and allowed the taxation of property to help finance the public infrastructure.

Two dimensions of the urban level deserve special attention in regard to the challenges of urban safety and security: urban spatial processes and institutional capacity at the metropolitan and municipal levels.

■ Urban spatial processes

As suggested in the story in Box 2.2, the major fact about urban land use is that it changes. The functions performed in any given location shift over time. These functions, whether residential, productive or administrative, depend upon many factors, including those at the global and national levels.⁴⁰ Patterns of spatial change and land use frame the context in which urban safety and security issues actually exist, thus emphasizing the importance of urban planning.

One of the most noted changes in urban space over the last two decades has been the growth of private urban space in the form of gated communities, a logical conclusion to the argument for defensible space. While these communities have, in part, been a response to growing urban crime and concerns about security, their impacts are far greater, leading to an increasing polarization of urban space and segregation between urban poor and middle- and upper-income groups.

The case of metropolitan Buenos Aires is a good example of this phenomenon. Studies of the growth of gated communities show that, by 2000, there were 434 private communities in metropolitan Buenos Aires. By August 2000, some 500,000 people lived in an area of 323 square kilometres, or an area 1.6 times larger than the downtown federal capital area, which houses 3 million people.⁴¹ This level and disproportionate land share of gated communities is more intense than similar developments in other Latin American cities; but it shares common features.⁴² Analytically, these areas can be differentiated by their date of settlement, the level of income of the population and, as a result, the scale and costs of residential plots and housing.⁴³ Most significantly, they represent a segregation and privatization of urban space. They are also direct consequences of the widening gap in incomes and wealth within the metropolitan population and are reflected in the growing social exclusion of large numbers of people.⁴⁴ This is well captured in the phrase *'la construccion del nosotros y de los otros'* (meaning 'the construction of ourselves and the others') in a study of the lifestyles of the gated communities.⁴⁵ This phrase also describes the psychological and cultural basis of fear that led to, and then is reinforced by, the privatization of urban space.

The socio-spatial fragmentation within one city is well illustrated in a description that links intra-urban inequality to the different velocities of mobility and connectivity of three households living in metropolitan Buenos Aires: one leaving their computer at home in a gated community, driving in their car along a highway to downtown white collar employment, probably in the financial sector, talking on their cell-phones; a second leaving their neighbourhood and taking a bus to work downtown in the service economy unconnected to computer technology; and a third not leaving their neighbourhood at all.⁴⁶

Urban spatial change, therefore, frames the vulnerability of urban groups to various risks in specific locations, whether from crime, evictions or disasters. As noted below, location in space is not necessarily coincident with the jurisdictions of urban institutions responsible for ensuring safety and security.

■ Metropolitan and municipal institutional capacity

While the issue of institutional capacity is important at all levels, it is particularly lacking at both the metropolitan and municipal levels, especially in developing countries. The institutional framework governing cities is complex, with national institutions often establishing norms – for example, for infrastructure standards – or providing federal revenue through states or provinces to the municipal or urban level. Municipal institutions are usually dependent upon these revenue flows, are often weak technically, except in large cities with long traditions of technical and professional training, and normally spend most of their resources on personnel expenditures followed by the costs of waste collection. Local institutions in developing countries rarely have the capital for investment in large-scale infrastructure provision such as water supply or electricity.

Within a multilevel institutional framework and frequently overlapping jurisdictions, urban safety and security are important responsibilities, but most capacities in policing or disaster preparedness are notoriously weak. These problems are described in some detail in Chapters 4 and 8.

One aspect of weak institutional capacity is the frequent lack of effective institutions at the metropolitan level. Very few cities have managed to establish metropolitan-level capacity to manage the positive and negative externalities of urban population density and habitat. These externalities affect the environment, the design and management of infrastructure, or the multiple flows that come in and out of a metropolitan area, to name a few.⁴⁷ The historical dominance of downtown municipalities and their unwillingness to give up their long-held prerogatives in order to build metropolitan forms of cooperation is a major problem at the urban level, whether in Buenos Aires, Dakar, Lagos or São Paulo. Despite the great claims made for decentralization of responsibility to peripheral municipalities, this process also does not guarantee effective capacity and performance. Responsibility without adequate financial resources – the problem of mandate without resources – often results in poor performance. This has direct conse-

One of the most noted changes in urban space over the last two decades has been the growth of private urban space in the form of gated communities, a logical conclusion to the argument for defensible space

Institutional capacity ... is particularly lacking at both the metropolitan and municipal levels, especially in developing countries

quences for urban governance and public-sector management of the three challenges to urban safety and security addressed by this Global Report.⁴⁸

The neighbourhood or community level

Ultimately, the context where vulnerability and impact are felt most heavily is the community level, which itself varies considerably between countries and even within countries. While there is, indeed, a set of cascading factors that generate cumulative and interacting impacts at the community level, there are also community structures and behaviour patterns which, in turn, interact with urban safety and security risks. These include location and spatial patterns of settlement; the historical origins and development of specific communities; structures of community power, authority and solidarity; levels and differences in income and wealth; and the perceived justice or injustice in the distribution of various conditions or privileges within the community. Just as there is increasing awareness of intra-urban differences, analysis of communities needs to take into account intra-community differences. The interactions of these factors and the differences within communities condition how urban safety and security is experienced.

The degree of safety and security felt within communities depends upon both exogenous and endogenous factors, as with other levels. This makes it difficult to explain the impact of specific assaults on security by a single factor. Outcomes depend upon intervening factors that may well determine institutional performance – for example, whether federal revenue-sharing formulae encourage the steady flow of resources for community policing, resolving tenure disputes through land registration systems and legal support, or disaster preparedness. Causation is complicated. In cases of communities that experience a high incidence of crime and violence, it is likely that high incidence is a function of cumulative impacts. Weak community authorities may be unable to enforce order and prevent criminal and violent behaviour, which, in turn, may have increased as a result of macro-economic changes, such as a reduced urban labour market, or sharply increased prices for essential products or services. In contrast, there may be other communities where leaders and the community are able to act together to patrol streets and reduce the likelihood that pedestrians will be accosted by delinquent youth. Explanations of these differences come from diverse factors; but it is important to acknowledge that many – though not all – of these originate at the community level.

As noted in Chapter 1, one of the most significant changes in security at the community level has been the recent acknowledgement of individual rights against the threat of forced evictions. In some communities in which occupancy is legalized for the majority of residents, there is often little sympathy for people vulnerable to evictions. Squatters are regarded as security threats and as illegal occupants who undermine the stability of neighbourhoods. In other communities inhabited mostly by squatters, in which there is empathy and solidarity among households in a shared status, the threat of evictions is largely perceived as

an external threat unlikely to be acted upon if community members consolidate their communities as much as possible. In so doing, they try to send a strong and aggressive signal to public authorities to desist from even considering evictions.

Both circumstances, however, have slowly begun to change since households lacking secure tenure, whether as a minority within a community or as members of the majority in a community of squatters, may now appeal to new legal frameworks and have been able in some cases cited in Chapters 5 and 6 to find alternative tenure arrangements or to postpone immediate eviction until some form of resettlement solution can be found.

Household and individual levels

The household is an important locus of threats to security and safety. First, individual household dwellings are often the sites of many types of crime and violence. The dwelling itself is also frequently the site of burglary and robbery. But at the same time, the security of the occupancy of the dwelling itself – containing the household – is very much under threat. This is particularly so in the case for the urban poor living in slums, as indicated in Chapter 1.

Understanding security of households, therefore, requires both social analysis – what is happening *to* the household, as well as *within* the household – and a broader physical and juridical analysis, including the degree of security of tenure that a specific household has achieved. As suggested in Chapter 3, there is extensive data on the likelihood of crime and violence against individual households in slums in cities such as Nairobi. In Australia, there are estimates of the average financial loss coming from household burglaries and vandalism. At the same time, evidence from many countries shows that violent physical abuse within households against the most vulnerable members, such as women, children, the elderly and the disabled, is common. This intra-household violence is yet another dimension of widespread intra-household inequality in which women and girls frequently receive less food, access to education and healthcare than male family members.

Vulnerability at the household level is partly determined by obstacles to effective risk response. These are generally tied to poverty, including lack of assets. A poor household with insecure residential tenure, and therefore likely to be forcibly evicted, is, in the first place, in that situation mainly because of poverty. Such a household – often located in an area prone to natural or industrial hazards – is not likely to be able to afford insurance against a natural disaster or burglary, nor is it likely to be able to evacuate family members and household effects on the sudden occurrence of a catastrophic hazard, such as a hurricane. It is at the household level that the effects of poverty on risk response and on vulnerability, in general, are perhaps most magnified and certainly best analysed.

The issues raised in the preceding section might also be considered from the perspective of an individual. While intra-household violence is addressed at specific individuals, in some cases there are, in fact, ‘generic victims’, who may

Ultimately, the context where vulnerability and impact are felt most heavily is the community level

One of the most significant changes in security at the community level has been the recent acknowledgement of individual rights against the threat of forced evictions

It is at the household level that the effects of poverty on risk response and on vulnerability ... are ... most magnified and ... best analysed

be 'gendered victims', such as women and girls. Other kinds of generic victims exist in cities – for example, street children who may be abused, maimed and even killed by public authorities to rid the city of so-called nuisances, or by private individuals or gangs who assume that attacking street children can be done with impunity. If these victims are vulnerable to crime and violence, they are also vulnerable to forced evictions and are likely to be the least protected during natural disasters. These individuals are, therefore, likely to be cumulatively vulnerable to risks and hazards.

FORMS OF INTERDEPENDENCE

The above analysis demonstrates that urban safety and security are dependent upon complicated patterns of cumulative causation and multiple impacts. An added dimension to this complexity is a pattern of interdependence, as well. Distinct spheres of action – social, economic and environmental – interact in ways that demonstrate the high degree of interdependence among them. Indeed, it is these myriad forms of interdependence which form a central part of the argument about various forms of resilience and sustainability.⁴⁹

So far, examples in which social, economic or spatial outcomes have depended upon multiple factors have been presented. These factors have been described as contributing to cumulative causation. The chains of causation, however, do not move only in one direction. For example, the high crime in Mexico City may be, in part, a result of macro-economic changes affecting the availability of employment. But high crime, as suggested earlier, also has a significant cost for the macro-economy and contributes to low levels of foreign direct investment or tourism. High crime at the community level can also reduce the rate of savings or asset accumulation of households who have been robbed. As a result, they are unable to invest in improving their homes. Therefore, even though their investment is modest, their victimization by crime has inhibited economic multipliers within their community. This micro-example is repeated many times over in countries such as Colombia or El Salvador, where households may be wary to reveal any wealth for fear of robbery. The causes of insecurity, therefore, may come from different origins.

The complexity of these patterns of causation suggests that simple explanations or single-issue recommendations to improve urban safety and security are likely to be of limited value. This observation sets up the normative framework in the following section.

PATHWAYS TO RESILIENCE

Previous sections of this chapter have proposed a conceptual framework for understanding the origins, causation and impacts of the three threats to urban safety and security addressed in this report: crime and violence, insecurity of tenure, and disasters. Risk factors underlying these threats have also been discussed at different geographical and

analytical levels. This discussion has demonstrated that single-cause explanations are insufficient representations of the complexity of these phenomena. In normative terms, three arenas have been identified that have the potential to remedy some of the worst impacts of these problems: institutions and policy, the juridical framework of international law, and civil society and culture.

While each of these arenas will be presented in detail in subsequent chapters of this report in relation to each of the three threats to urban safety and security, the following sub-sections suggest that, individually and together, the arenas offer alternative and complementary pathways to the *resilience* required to alleviate some of the worst impacts of these problems. For the purposes of this chapter, as noted earlier, resilience is defined as the capacity to adjust to threats, to mitigate or avoid harm, and to bounce back from shocks.

Institutions and policy

As suggested in previous sections of this Global Report, one dimension of the urban safety and security challenges requiring direct attention is the role of institutions. Examples have been provided showing how various factors at the global and national levels have affected national institutions and, in turn, their influence on the capacity of urban and community institutions to respond to these challenges. While it is relatively easy to identify and document these institutional impacts, it is much harder to improve institutional performance on managing, for example, crime and violence in the short, medium and even the long term. Indeed, the weakness of urban institutions is itself a vulnerability that allows these threats to security to be so heavy in their social and economic impacts in the first place.

As noted above, the term 'institution' refers to any structured pattern of behaviour, including 'informal' institutions or behaviours, that communities and households may use to maintain their equilibrium in the face of dynamic conditions such as crime and violence or disasters. The value and utility of this sociological definition of 'institution' is illustrated in the following examples. Recent experiences have demonstrated that in disasters in many countries, such as after earthquakes in Surat in India and Bursa in Turkey, or in recovery from tsunami-affected areas in India or Sri Lanka, women's groups are usually the best informed about community conditions and about the mapping of facilities, households and community hazards.⁵⁰ It should not be surprising that they also are effective in determining the priorities for relief and recovery, as international aid organizations have now come to recognize and appreciate.

The issue of information is critical in this context: normally male-dominated public institutions seek to control information before and after disasters, using such events as opportunities to assert power or to have a privileged claim on the flow of new resources destined for relief and recovery. Women's groups as informal institutions, therefore, should be central to any mapping of institutional actors involved in maintaining urban safety and security. The importance of gender in this regard directly contradicts what is

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Resilience is ... the capacity to adjust to threats, to mitigate or avoid harm, and to bounce back from shocks

normally a male-dominated, top-down, technical approach of institutions involved in managing safety and security. In many contexts, women have either been 'ignored' by these institutions or 'protected', rather than allowed to be active participants in the processes that directly affect them.

In contrast, it is apparent that the weaknesses and lack of financial capacity of formal municipal, state or provincial institutions are important underlying contributors to the chronic condition affecting vulnerability of individual communities. These weaknesses are actually amplified by the fact that they frequently refuse to recognize and/or cooperate with community-level institutions. The strategic question, therefore, is how this gap can be bridged to strengthen urban institutional capacities, whether to reduce crime and violence, to regulate housing and land markets so that people's rights to secure tenure are honoured, or to anticipate and mitigate the impacts of disasters.

This Global Report will suggest that each of these threats to urban safety and security represents a major opportunity to reform and strengthen institutions. In the case of disasters, this means not returning to the *status quo ante*, but rather seeking new forms of representation, decision-making and accountability in formal institutions, as well as the recognition that informal community institutions have a critical and central role to play in preparedness to address future problems as much as during immediate emergencies. In a word, disasters may represent a political and economic opportunity for the poor.⁵¹ This opportunity has been amply demonstrated in the myriad efforts by disaster victims in Sri Lanka and India to use disaster recovery efforts to address security of tenure issues.

This insight has profound implications in developing an effective analytic and policy approach to the issues of urban safety and security. For many years, international institutions, following national and local practices around the world, took the position that responses to disasters were not the right time to undertake institutional reform. They argued that victims had immediate material needs for food, medicine and shelter, and that the institutions best suited to providing those services were existing institutions. Institutional reform or strengthening was viewed as a medium- or long-term goal to be addressed after short-term priorities were met. The problem with this perspective is that, in most cases, considerable responsibility for the disaster in the first place lay with the practices of existing institutions. It makes little sense to give them more resources to distribute and to manage in ways that have previously proven to be ineffective. It is the classic case of 'throwing good money after bad'.

Finding an effective and sustainable institutional solution to critical problems does not mean accepting the *status quo ante* as desirable or even as second best. Rather, as a growing body of case experience is showing – for example, in communities who survived Hurricane Mitch in Guatemala and Honduras – disasters offer an opportunity for institutional change.⁵²

As subsequent chapters will present in some detail, institutional strengthening covers a wide spectrum of subjects, from clarifying institutional mandates, ensuring

budgetary resources, improving personnel practices, building leadership, requiring accountability, improving processes of formulating policies and regulations, designing effective work programmes, and sensibly allocating institutional capacities. With respect to each of the three threats addressed by this report, these institutional challenges have different technical meanings and priorities. Their urgency differs from city to city and from country to country, depending upon existing local institutional capacities as well as the significant threats to security. The critical questions to pose are: what should be changed? How much time is there? Who is responsible for making change happen? Clearly, one size does not fit all.

Juridical framework of international law

A second pathway to social resilience is the emerging juridical framework of human rights as elaborated upon in the international instruments cited in Chapters 5, 6 and 11. In the context of this Global Report, international law and emerging human rights mean different things in each of the three challenges to urban safety and security. For example, in the arena of tenure security, emerging rights refer to the rights of urban residents to protection from eviction in the absence of prior alternative housing arrangements. What is noteworthy and new is that the juridical framework of human rights adopted at the international level – the process of establishing legal norms – is increasingly being applied to local urban circumstances, including in the areas of crime and basic needs. This might also be applied in some countries as the right to effective governance and delivery of services. The existence of human rights, therefore, can empower urban residents to 'claim' and/or defend their rights when these rights are under threat. This changes the political environment in which they live.

While the outcomes of appropriate institutional behaviour addressing urban safety and security are critical determinants of the impacts of hazards and risks of various kinds, they also need to be understood as highly transitory and dependent upon political circumstances at a particular historical moment. Institutional responses to urban crime during the term of one mayor may be effective and have an appropriate balance between prevention and punishment; but the next mayor can have an altogether different approach. It is therefore critically important to establish enduring norms of behaviour that can guide institutional behaviour and protect the citizenry over time. In this regard, the growing body of human rights laws relating to diverse aspects of human security should be seen as 'emerging rights', not yet fully acquired or even accepted in some countries, but of growing importance.

The concept of emerging rights is important because it signifies a process by which a 'right' comes to be recognized as legitimate and judicable in a court of law, or as coined in several legal instruments: 'the progressive realization' of various rights. This covers a wide and ever expanding range of human behaviour across countries – for example, the emerging rights of producers of intellectual property such as recorded music, or the emerging rights of prisoners

Informal community institutions have a critical and central role to play in preparedness to address future problems as much as during immediate emergencies

Disasters offer an opportunity for institutional change

in jail for common crimes, or the rights of people with disabilities to access public space, or the right not to be discriminated against on the basis of race, ethnic identity or gender.

The presence and weight of human rights is directly applicable to the problem of insecurity of tenure and forced evictions. Because freedom from forced evictions is now included in international human rights law, as mentioned earlier and explained in greater detail in Chapters 5 and 6, citizens fearing such evictions can invoke this legal framework in order to avoid such evictions or to claim compensation. While these processes are tedious and often do not provide compensation in a timely manner, the right to invoke legal protection has had a dramatic effect on many people and institutions planning new projects on already occupied land in cities, and for which new projects would require resettlement of existing occupants. It has led to formulation and wide publication of new guidelines for official practice in city agencies, as well as international institutions such as the World Bank,⁵³ whose policies then must be aligned with those of the cities and countries receiving international assistance, thereby multiplying the impact of such guidelines.

An important dimension of these new guidelines is the requirement for public consultation. While such requirements have been in force in many developed countries for many years, this step in approving planning and construction projects represents a major new departure in developing countries, opening up further possibilities for political empowerment.⁵⁴

The existence of human rights for secure tenure and against forced eviction is also related to the important subjects of inheritance and property rights. In many countries, women are denied such rights even though they are the effective managers of household resources. If women have a right not to be evicted, this fact immediately has implications for who is entitled to security of tenure. This does not apply only to the case of evictions, but is common, for example, in cases of who is entitled to receive recovery or reconstruction assistance or compensation following disasters. In most cases, these forms of assistance are allocated to 'property owners', frequently recognized only as the male 'head of household', ignoring the fact that in most cities there is a significant proportion of female-headed households. But if this bias did not in the past reflect the role of women in rebuilding communities after disasters, now such bias is increasingly a legal issue, as well, for those women able to present such cases to judicial authorities.

Human rights, in this sense, is a powerful pathway for helping women and other disadvantaged groups to obtain their lawful status and rights, but also to be effective participants in the reconstruction of infrastructure, shelter and community services. This implies a much broader view of the process of change where women's groups actually establish precedents and protocols for community recovery. This has two important dimensions: women's participation and, hence, their recognition as legitimate community actors, and the likelihood of community outcomes being different –

indeed, being more sustainable – if they are involved.

Several examples of women's mobilization emphasize this point. The most effective campaigns against driving under the influence of alcohol and juvenile delinquency in the US have been organized by women such as Mothers against Drunk Driving (MADD), whose right to protect their children could not be opposed by anyone. Similarly, in Kingston, Jamaica, women's groups analysed the nature of neighbourhood violence and organized different approaches to managing it.⁵⁵ In Gujarat State in India, the Self-Employed Women's Association (SEWA) has built a major organization over 35 years that has significantly enhanced their participation in development and is now active in providing community finance as well. Women's groups in Latin America have also been proactive and have changed the political landscape in these areas (see Chapter 8). All of these cases suggest that recognition of the right to participate in ensuring safety is a major asset in helping to build social resilience at the community and, eventually, the urban level.

Civil society and culture

The third pathway to resilience is through civil society and culture. While the previous examples highlight the role and mobilization of women in addressing problems of urban safety and security, these efforts need to be placed within the wider context of civil society as a whole. Clearly, one of the legacies of the fall of the Berlin Wall and the end of the Cold War has been the legitimacy given to civil society. If civic participation had been caught in the ideological battles of the Cold War, it is now understood as a desirable and, indeed, necessary component of societal decision-making and problem-solving, regardless of what definition or form of democracy is adopted. The diversity and capacity of civil society organizations at both the global and national levels have expanded many fold.⁵⁶

The three threats to urban safety and security discussed in Chapter 1 represent increasingly serious hazards to society. Crime and violence, forced evictions and disasters destroy existing forms of social capital, as well as injure individuals and households. This social capital, in the form of formal and informal institutions, social knowledge and problem-solving capacity, is a critical ingredient in protecting individuals and groups from threats to urban security.

The role of social capital, as distinct from individual capacity, is very important. Experience in confronting these hazards has demonstrated that individuals cannot withstand such risks by themselves. Rather, there is strength in numbers. It is, therefore, critical to determine what are the capacities and rights needed to strengthen civil societies in the face of such threats. These capacities depend, first, upon a set of rights, including the right to anticipate the future,⁵⁷ the right to information about such threats, the right to organize, and the right to participate in decisions affecting prevention, mitigation, relief, recovery and redevelopment. Building capacities to exercise those rights is much more complicated and will be discussed in some detail in subsequent chapters of this report.

The presence and weight of human rights is directly applicable to the problem of insecurity of tenure and forced evictions

Social capital ... is a critical ingredient in protecting individuals and groups from threats to urban security

Preventing or mitigating the impacts of threats to urban safety and security hinges upon allowing civil society to play an active, informed role

Narratives of resilience are necessary for public education, as well as for political leaders

Disasters reveal the resilience and capacity of governments. The performance of infrastructure is a reliable indicator of how well public agencies are doing their jobs

An important theoretical insight by Amartya Sen about famines is relevant here. Sen observed in 1982 that no famine had ever occurred in a democracy.⁵⁸ He explained the societal and economic adjustments to shortage of food as highly dependent upon the free flow of information within a democratic society. Similarly, the ability to anticipate a threat to safety and security, such as a tsunami or a flood, depends heavily upon the flow of information, in time, to people likely to be affected by such an event. If information on an impending hurricane is available, as in the case of Havana, people can make precautions or evacuate. In either case, the disaster is not a surprise, becomes more of a process than an event and is therefore possibly more manageable in some of its impacts.

It is important, therefore, to acknowledge that preventing or mitigating the impacts of threats to urban safety and security hinges upon allowing civil society to play an active, informed role. What this means, however, in specific places depends heavily upon culture. The meaning of culture here is closely tied to values and perceptions of key factors, such as authority, identity, status, risk, costs, participation and impact. The contextual meaning of these concepts shapes the content of human behaviour in these situations. For example, how women communicate and work together within tsunami-affected villages in southern India depends heavily upon caste. The modes and style of women's participation in community recovery groups after the earthquake in Bursa, Turkey, were contingent upon whether they were highly religious. Responses to gangs in Guatemala or Honduras must be highly conditioned by an understanding of what are the issues facing the identity of young male gang members and why they join such violent gangs in the first place.

An important part of this engagement by civil society is the nature of participation itself. There are three aspects of the participatory claim that deserve attention: the procedural aspect, the methodological dimension and the ideological position. Participation can have very different functions, outputs and outcomes. It is clear that in each of the three threats to security considered in this Global Report, there is an important role for citizen participation in mitigating the worst effects of these phenomena, as demonstrated by the participatory risk assessments in South Africa or Peru. The Asian Coalition for Housing Rights (ACHR) has demonstrated that citizen participation in the aftermath of the Indian Ocean Tsunami has made an enormous difference in the rate and quality of recovery in the local areas of India, Indonesia, Sri Lanka and Thailand affected by this tragedy.

If culture is important as a factor in explaining behaviour, it is also central to identifying normative approaches to ensuring urban safety and security. There are many examples of communal – not just community – responses to these issues. Communal identities and values, whether religious or ethnic, play a major role in determining what behaviours are acceptable and what are not. So, too, do they determine what is popularly regarded as 'justice' in the prevention of violence and punishment.

Lessons learned on the pathways to resilience

Taken individually, institutions and policy, the human rights legal framework, and civil society and culture each represent pathways to strengthening social resilience in cities. Taken together, they are highly interdependent and are integral, interwoven fibres in the texture of social resilience.

In suggesting that building social resilience should be a core social and development objective for all countries, regardless of income level, it is also important to acknowledge that scholars and practitioners have been working with this concept and applying it in both the natural and social sciences for several decades. This work has been collected and summarized in various volumes and websites.⁵⁹ Much of this work is useful in understanding how the concept of resilience can be an effective normative objective for policy and the international community. In this regard, several key lessons deserve attention.

Some of these lessons come from studies of response to disaster,⁶⁰ but also apply to other threats to urban safety and security. These can be described as follows:

- Narratives of resilience are necessary for public education, as well as for political leaders. While these stories are not always universally accepted and, in fact, are usually highly contested, as the cases of Mumbai and New Orleans suggest, they provide an important role in building resilience itself. Telling the stories of how security of tenure was achieved in Klong Toey in Bangkok or the *barriadas* of Lima helps to build popular understanding and support for other efforts. Similarly, the stories of the Young Lords in helping to control violence in New York or how crime in Medellin was stopped all help to build a popular image in urban culture about what is possible.
- Disasters reveal the resilience and capacity of governments. The performance of infrastructure is a reliable indicator of how well public agencies are doing their jobs. Similarly, the performance of departments within government, as well the performance of leaders, is deeply revealing of the strength and character of public institutions. One former government official has noted that 'adversity does not build character; it reveals it'.⁶¹ Whether institutions have been working together prior to a disaster is a critical determinant of performance. As the mayor of Baltimore bluntly commented in a seminar on disaster preparedness: 'You don't want to be exchanging business cards on the scene.'⁶²
- Similarly, if the municipal police are able to contain a criminal problem in one neighbourhood without unnecessary violence, they are able to demonstrate capacity, which enhances their credibility for the next time. Furthermore, in cases where relocation of people from their homes is unavoidable, such relocations can be handled with sufficient advance notice, following appropriate consultation and participation of the people concerned. There is a much greater likelihood that the process can occur smoothly and lead to real improvements for the people affected.

- Local resilience is linked to national capacity, but is site specific. National recovery and efforts support and reinforce local efforts; but local resilience is contextually specific. As one observer has commented: ‘911 is a local call.’⁶³ This is well illustrated in the case of Catuche in Caracas, Venezuela, where a local community organization saved thousands of lives in flooding and landslides in 1999.⁶⁴
- Resilience and physical rebuilding benefit from prior investment. These processes are historically cumulative and build upon one another. Capacity to address one threat to urban security is transferable to addressing other threats. Social learning occurs within cities and communities. This is well illustrated in the case of Cuba’s response to hurricanes, where being highly organized in public health and education carry over to preparedness for tropical storms in Havana and other Cuban cities.
- Resilience is built on the past, but anticipates the future. The capacity for a city to ‘get on with its life’ is a strong indicator of how it values its past, but also how it can imagine and work towards its future.⁶⁵

Finally, in normative terms, learning how to build resilience is important because cities are experiencing shifting patterns of risk and vulnerability. These shifting patterns reflect dramatic changes at multiple levels: global, national, urban, local, community, household and individual. All of these levels depend upon one another and feel the impacts of patterns of causation that do not simply go in one direction, but rather have feedback loops and generate other impacts. Some of these loops actually contribute to resilience through social learning at the urban level. Learning about environmental justice in one city can be applied to other cities, as the experience of the US illustrates. In other cases, there are severe obstacles to building capacity to absorb and manage risks and challenges to urban safety and security.

In a world of rapidly expanding information flows and exchange of experience, the process of peer learning – South–South and South–North, as well as the North–South and North–North – can produce impressive results. Indeed, as the experience of Hurricane Katrina illustrates, some countries of the North have much to learn from the South. In this regard, there are some cases such as The Netherlands’ response to the floods of 1953 that laid the foundation for several generations of institutional learning and public education, preparing the country probably best of all for the anticipated sea-level rise expected from global warming.⁶⁶ Recent experience as well as projections of future urban growth suggest that this learning will need to rapidly accelerate since demographic, social, economic and environmental pressures will all intensify dramatically. The conceptual framework and discussion presented in this chapter is intended to help identify a language and an analytical framework for understanding these phenomena.

CONCLUDING REMARKS: THE ROLE OF URBAN POLICY, PLANNING, DESIGN AND GOVERNANCE IN ENHANCING URBAN SAFETY AND SECURITY

Chapters 1 and 2 have provided an overview of the three threats to urban safety and security: crime and violence, insecurity of tenure, and natural and human-made disasters. Both chapters have been descriptive and analytic: identifying problems, as well as providing a conceptual framework that helps to understand their origins and how they are embedded in urban areas and urban processes. From the perspective of each of these three broad threats to urban safety and security, there is an evident need to improve preparedness, to reduce risks and vulnerabilities, to increase the capacity for response, and to take advantage of the opportunities for positive urban reform and social change during the process of recovery.

It should be asked, however: what is the role of the human settlements perspective (i.e. urban policy, design, planning and governance) in guiding these steps towards positive change? How can the impact of urban policy, planning, design and governance on these three very difficult sources of insecurity be enhanced? This concluding section addresses these questions, signalling further discussions of these issues in subsequent chapters of the report.

For the purposes of this Global Report, urban policy is understood as all those explicit decisions intended to shape the physical, spatial, economic, social, political, cultural, environmental and institutional form of cities.

In terms of improving urban safety and security, urban policy is translated into urban design, programmes, and operating procedures and measures that can directly affect social behaviour. For example, urban policy could include the strategic decision to decentralize urban governance in order to multiply and increase the density of public institutional contacts with the citizenry in a rapidly expanding city. Increased public presence could serve to inhibit neighbourhood crime and violence. It could include attaching community policing measures to decentralized municipal structures for paying taxes, obtaining permits, and resolving neighbourhood conflicts, such as land tenure disputes. It entails decision-making about the spatial-physical form, social and economic goals and institutional organization of the city.

Planning, for the purposes of this Global Report, is the assembly and analysis of information, the formulation of objectives and goals, the development of specific interventions intended to improve urban safety and security, and the organizational processes needed to bring them to fruition. Planning takes the decisions of urban policy-makers and transforms them into strategy and measures for action.

Urban design, as used in this report, involves the design of buildings, groups of buildings, spaces and landscapes in towns and cities, in order to create a sustain-

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The first challenge of planning to improve urban safety and security is the assembly of information to correctly frame the problem

The second challenge of planning ... is in the formulation of objectives

A third challenge is the formulation and enforcement of norms and codes of behaviour

able, safe and aesthetically pleasing built environment. It is limited to the detailed physical structure and arrangement of buildings and other types of physical development within space. This includes the use of building codes, for example to mandate earthquake-proof or flood-proof buildings. Urban design is narrower than urban planning, and is often seen as part of the latter. While subsequent chapters of this report present problem-oriented planning solutions, this section will highlight some of the approaches deserving consideration.

The first challenge of planning to improve urban safety and security is the assembly of information to correctly frame the problem. In the area of crime and violence, this calls for increased efforts, mostly but not entirely in developing countries, to collect reliable data on crime and violence. This varies tremendously across countries and even cities within countries; but better information allows a clearer and more detailed assessment of threats, risks and vulnerabilities. A similar exercise is required to reduce the problem of insecurity of tenure. Surveys of land occupancy and housing in cities could help to identify the scale of the tenure problem and on what types of land it is most prevalent. The assembly of data on settlement patterns should be related to processes of spatial expansion, not simply demographic growth.⁶⁷ In the field of disaster preparedness, there exists a body of good practice in mapping hazards and developing risk profiles, as shown in the cases of hazard mapping and risk assessment in India, described in Chapter 8. Risk assessments must include collection and analysis of multiple types of information and address complex issues of multiple hazards, cumulative risk, and primary, secondary and tertiary consequences (see Chapter 8).

The second challenge of planning in relation to urban safety and security is in the formulation of objectives. In the field of crime and violence, a major issue is whether substantial resources can be devoted to the prevention of crime and violence and, if so, how? Cities have historically vacillated between sending strong signals to discourage potential perpetrators of crimes through heavy sentences and punishments for crime and more socially oriented 'softer' approaches, including community policing and expanding civil society involvement. A parallel example in the tenure field is whether governments will recognize the impressive list of human rights that have been declared by the international community and, therefore, desist from bulldozing homes and neighbourhoods in the name of land-use and zoning regulations. With respect to disasters, a number of

thematic areas for urban planning (including urban design) have been identified in Chapter 8: mapping hazard, vulnerability and risk; strengthening local capacity for resilience; land-use management and urban planning; building codes, regulation and disaster-resistant construction; planning to protect critical infrastructure and services; early warning; financing urban risk management; disaster response and recovery.

A third challenge is the formulation and enforcement of norms and codes of behaviour. It is generally understood that prevention of crime and violence requires publicly established sentences and penalties for crimes committed. This issue, however, is heavily affected by the concept of mitigating circumstances that lead judges to either increase or decrease sentences. Norms have gradually become codified regarding land tenure issues; but these arrangements can be so complicated that simply understanding them is far beyond the educational level of the poor people most affected by them. Codes with regard to building construction or land use to avoid natural disasters are more easily understood; but even here, the issues of enforcement to reduce risk are complicated in local environments. This affects the levels of preparedness that are possible in different environments – for example, using people-centred preparedness systems or focusing more on local government procedures.⁶⁸

Both the processes of urban policy, as broadly defined, and planning are integral parts of the governance process. As the previous section on pathways to resilience suggests, each of the different components of the governance process has important roles to play: institutions and policy, the juridical framework of international law, and civil society and culture. Governance is more than government, whether institutions or forms of public authority: it is an all-encompassing process by which official and non-official actors contribute to management of conflict, establishment of norms, the protection of the common interest, and the pursuit of the common welfare.

During the 21st century, urban growth has contributed to increasing concentrations of hazards and risk for growing urban populations. While much of the responsibility to reduce these risks is at the urban and national level, the international community has also accepted some responsibilities for specific aspects of these challenges. Part I of this Global Report has framed the problem. Subsequent parts will examine each of the challenges to urban safety and security in greater depth and suggest positive approaches for reducing these risks as cities continue to grow.

NOTES

1 Alwang et al, 2001; Bankoff et al, 2004.
2 *Ibid.*
3 Alwang et al, 2001, p2.
4 Holzman and Jorgensen, 2000.
5 Alwang et al, 2001, p10; Pelling, 2003.
6 Alwang et al, 2001, p4.
7 Sharma et al, 2000; Devereux, 1999; Moser, 1998.

8 Adger, 1999.
9 Alwang et al, 2001, p5.
10 Bankoff et al, 2004.
11 Stephens et al, 1994.
12 Pettis, 2003.
13 Stiglitz, 2002.
14 See UN-Habitat, 2005c.
15 Morley, 1998.
16 Galster, 1999.
17 Cohen et al, 1996.
18 Hansen, 2006.
19 Kerr, 2006.

20 See Chapter 12.
21 Davis, 2006b.
22 See, for example, Diamond, 2005.
23 See, for example, articles in *DNA*, *The Times of India*, *Indian Express* and *Hindustan Times* during July 2005, and Stecko and Barber, 2007.
24 See Chapter 3.
25 See Angel et al (2005) for an excellent analysis explain-

ing the differences in the performance of the housing sector across countries.
26 Angel et al, 2005.
27 United Nations, 2001a.
28 See Chapter 3.
29 See Thompson, 2007.
30 DFID, 2005; also see Box 12.7 in this report.
31 See Chege et al, 2007.
32 Moser, 1996.
33 See Chapter 3.

- 34 See Chapter 3; Thachuk, 2001.
- 35 See Chapter 3.
- 36 Davis, 2006b. See also Hartman and Squires, 2006.
- 37 Ziccardi, 1991.
- 38 Bombay First, 2003.
- 39 Nedoroscik, 1997.
- 40 Soja, 2001.
- 41 Svampa, 2001, p57.
- 42 Caldeira, 2000.
- 43 Svampa, 2001, pp61–82.
- 44 Svampa, 2005.
- 45 Arizaga, 2005, p105.
- 46 Cicolella, 1999.
- 47 Sivaramkrishnan, 1986; Rojas et al, 2006.
- 48 There is now a large literature on urban governance. A useful set of cases is included in McCarney and Stren, 2003.
- 49 Stren and Polese, 2000.
- 50 Yonder et al, 2005.
- 51 Sandy Schilen, cited in Yonder et al, 2005, p1.
- 52 *Ibid.*
- 53 See World Bank, 2001, and www.worldbank.org/safeguards.
- 54 Friedmann, 1992.
- 55 Moser and Holland, 1997b.
- 56 Kaldor et al, 2004.
- 57 Gutman, 2006.
- 58 Sen, 1982.
- 59 Vale and Campanella, 2005.
- For many references see, <http://urban.nyu.edu/catastrophe/index.htm>; see also documentation of United Nations Disaster Decade.
- 60 Vale and Campanella, 2005, pp330–353.
- 61 Fred Hochberg, dean of the Milano School of Management and Urban Policy, New School University, comment at Symposium on Cities at Risk, New School University, 7 April 2006.
- 62 Martin O'Malley, mayor of Baltimore, comment at Symposium on Cities at Risk, New School University, 7 April 2006.
- 63 Fred Hochberg, dean of the Milano School of Management and Urban Policy, New School University, comment at Symposium on Cities at Risk, New School University, 7 April 2006.
- 64 Jeffrey, 2000, cited in Sanderson, 2000, pp93–102.
- 65 Vale and Campanella, 2005, pp330–353.
- 66 See Orr, et al, 2007.
- 67 See Angel et al, 2005.
- 68 See Chapter 8.

