

Building Resilience in Cities under Stress

EDITED BY FRANCESCO MANCINI AND ANDREA Ó SÚILLEABHÁIN



Cover Image: Skyscraper under construction near Dhobi Ghat in Mumbai, India, August 2, 2015. Paulprescott72/iStock.

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Executive Summary

Urbanization has become a central issue in global security, development, and governance. Experts project that, by 2030, more than three-quarters of the world's population will live in cities. This rapid urbanization can offer higher standards of living and opportunities for millions of people, but it can also come at a cost: cities that are unable to respond to the needs of their growing populations face rising violence, crime, and poverty. As a result, urban fragility has emerged as a key issue for national and municipal governments and for global and local security and development actors.

This report aims to highlight diverse sources of urban fragility and approaches to urban transformation, renewal, and resilience. Five city case studies explore the drivers of fragility related to security, development, and governance, before offering examples of policies and programs that can build resilience. The case studies are: (1) Bangkok, where the effects of fragility vary greatly among socioeconomic groups and are exacerbated by spatial segregation; (2) Dhaka, where poor governance and lack of basic infrastructure—such as sanitation and transportation—add to the city's natural vulnerability to flooding; (3) Mumbai, where a history of organized crime and communal violence continues to surface in one of the largest metropolitan areas in the world; (4) Lagos, where ineffective and fragmented governance undermines the city's capacity to provide basic public services; and (5) Medellín, where the legacy of four decades of violence continues to dictate security and development policy, even while the city is hailed internationally for its transformation.

As these cases demonstrate, every city is fragile in different ways. But within this spectrum of fragility, three common features of cities under stress emerge: socioeconomic and spatial segregation, rapid population growth, and suboptimal governance systems. The cases also highlight a range of policies and programs to build resilience, from community-led analysis of local resistance to threats and stresses in Medellín to a set of principles to inform transformative policies in Bangkok.

The lessons emerging from these cases and the

authors' analyses suggest four guiding principles for strengthening urban resilience:

1 **Adopt dynamic and scenario-based urban planning.**

Scenario-based urban planning is a dynamic process that enables city planners to prepare the urban system to deal with internal and external shocks and different potential futures. This planning practice increases the ability of cities to absorb change and disturbance while continuing to perform basic functions and deliver services, making them more adaptable and agile. This practice also allows for a long-term perspective on uncertainties, independent from changes in government leadership.

2 **Optimize urban governance.**

All the authors focus on the need for leaner government structures and clearer lines of authority and responsibility. When urban areas expand, jurisdictions overlap, and planning fails to integrate populations across economic divides, new models of metropolitan governance are needed. Urban governance can engage and coordinate the efforts of multiple stakeholders, such as local authorities, national governments, businesses, and civil society organizations.

3 **Add voices to decision making.**

Even in cities where recent improvements have been praised on many fronts, such as Lagos and Medellín, more can be learned from the livelihood strategies and responses of local residents. Those living in fragile neighborhoods often show extraordinary resilience. To achieve more effective governance, urban decision makers can learn from community-led initiatives and facilitate community participation—from planning to implementation.

4 **Focus on spatial segregation.**

Urban fragility and resilience are not evenly distributed across socioeconomic groups, nor are these groups evenly distributed across cities. Segregation remains a key factor of urban fragility, and some critics are justly concerned

with the tendency to build safe and fully serviced neighborhoods for the benefit of the wealthy few. The authors of this report are no exception, arguing that inclusiveness is a policy principle central to urban resilience.

Urban fragility is created by an intricate mix of factors connected to a city's geographical features, historical heritage, and current political and socioeconomic dynamics. But the cases in this report demonstrate that urban fragility can be

generally seen as the extent to which urban systems are susceptible to damage incurred by shocks, with urban systems including not only infrastructure and ecological systems but also social, economic, and political systems. This broader definition of fragility is a crucial step in turning toward urban resilience, to determine how cities can manage, adapt, and recover from internal and external stresses and crises.

Introduction

Andrea Ó Súilleabháin*

For the first time in history, more than half of the world's people live in cities. By 2030, three-fifths of the world's population will be urban, amounting to more than 5 billion people. The majority of this population growth will be in impoverished city neighborhoods, with the global population of city slums reaching 2 billion as soon as 2030. Alongside this unprecedented urbanization, urban fragility has emerged as a central challenge in global development, security, and governance theory and practice.

The world has entered a new era of megacities and urban sprawl, unplanned and vast expansion of urban areas, and increasing economic, social, and spatial inequality. The world's fastest urban growth rates are in Africa and Asia, where the urban populations will, respectively, triple and double by 2050. Urban centers in Latin America will also continue to experience rapid growth and the challenges brought on by fragility. This global context has serious implications for vulnerabilities and risks in cities, from ongoing crime and violence to future urban development strategies and the increasing importance of municipal governments.

Like the fragile state, the fragile city suffers from rising instability, poverty, and violence while lacking the capacity to face the magnitude of these challenges. Some analysts believe fragile and “failing” cities mark “a new frontier of warfare,” whether situated in a war-torn state or in a largely peaceful one.¹ The implications for global development efforts are clear; according to the report of the UN High-Level Panel on the Post-2015 Development Agenda, “Cities are where the battle for sustainable development will be won or lost.”²

In fragile cities, the social contract between citizens and their government is broken or—in

neighborhoods unofficially governed by non-state actors and groups—absent altogether. As a result, urban management and municipal governance are critical issues for human, national, and international security. This crisis of urbanization places cities at the center of debates on regional stabilization, prevention of violent crime and terrorism, economic development, public service delivery, and resource management.

But urban growth itself need not represent a threat to city and state security. When governed effectively, urbanization can improve the lives of citizens and bring growth to nations; where cities thrive, literacy and education improve and employment opportunities abound. Many urban centers are home to creativity, innovation, and unparalleled opportunities for citizens.

Where urban management fails, however, shortcomings in public service delivery and public security lead to violence, unemployment, economic hardship, and the segregation of the poor. Around the globe, urban neighborhoods are in crisis, in some cases facing levels of violence comparable to war zones. This tension has been termed the “urban dilemma”—in the twenty-first century, urbanization can be viewed “as a force for unparalleled development on the one hand, and as a risk for insecurity amongst the urban poor on the other.”³

It is with this dilemma in mind that the International Peace Institute (IPI) launched a project to investigate the drivers of urban fragility and sources of urban resilience. In turning to urban resilience, IPI seeks not only to better understand and analyze fragile cities but also to discover and highlight sustainable urban management tools to build public safety, social cohesion, and the social contract from the local to the national levels.

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1 Robert Muggah, “Fragile Cities Rising,” *The Global Observatory*, July 10, 2013, available at www.theglobalobservatory.org/analysis/537-fragile-cities-rising.html.

2 High-Level Panel of Eminent Persons on the Post-2015 Development Agenda, *A New Global Partnership: Eradicate Poverty and Transform Economies through Sustainable Development* (New York: United Nations, 2013), available at www.un.org/sg/management/pdf/HLP_P2015_Report.pdf.

3 Robert Muggah, “Researching the Urban Dilemma: Urbanization, Poverty and Violence,” International Development Research Centre, May 2012, available at www.idrc.ca/EN/PublishingImages/Researching-the-Urban-Dilemma-Baseline-study.pdf.

PROJECT RATIONALE

Many multilateral organizations, including the United Nations, are not well-equipped to engage on the municipal level, given their long-term practice of working primarily with national governments and regional bodies. Yet in today's world, the city is a central site for peacebuilding and governance. There are many lessons yet to be learned in urban spaces where productive government, effective management and service delivery, and innovative spatial organization have prevented instability and rebuilt communities after conflict. Urban spaces also demonstrate the potential positive role of civil society and nongovernmental organizations, particularly in filling governance and service gaps.

Urban resilience determines how cities manage, adapt to, and recover from internal and external stresses and crises. Although previously regarded as only the capacity to respond to disasters, resilience can prepare cities to address a range of stresses and challenges before they occur. Indeed, “resilience provides a framework for strategies that will build on the capacity of individuals, communities, institutions, businesses and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience.”⁴

This report seeks to contribute to and capture key insights from the existing literature on how to build resilient cities. For example, the Rockefeller Foundation's 100 Resilient Cities initiative identified seven features of resilient cities: reflectiveness, resourcefulness, robustness, redundancy, flexibility, inclusiveness, and integration.⁵ The authors of this report highlight the relevance of many of these features in their cases, either explicitly or implicitly.

The reduction of violence, poverty, and inequality in cities is a constant theme for the authors of this report. It is also the focus of the Safe and Inclusive Cities research program of the International Development Research Centre

(IDRC).⁶ Strategies to reduce violence and a better understanding of urban fragility are emerging from this project, based on qualitative and quantitative studies underway in more than forty cities around the world and an expanding South-South network of researchers.

The connection between the fragile city and the state is also critical to this initiative. The fragile city is both a cause and an effect of broader state and governance trends and transformations, yet few projects explore the dynamic link between cities under stress and their larger impact on the functioning of states. The Cities in Fragile States program of the Crisis States Research Centre has done just that, providing more than a dozen working papers that explore “the dynamic tension between cities and states and how cities affect the ability of states to effectively deliver their core functions of security, growth and welfare.”⁷

SCOPE AND METHODOLOGY

Looking at cities under stress in Asia, Africa, and Latin America, IPI commissioned five city case studies by locally based scholars and practitioners. IPI partnered with the Institute of South Asian Studies (ISAS) at the National University of Singapore to produce three of these cases on cities in Asia to draw important lessons from rapid growth across the region. For instance, 74 percent of the 230 million people lifted out of slum conditions in the past decade were in Asia (primarily in China and India).

The case studies illustrate a range of challenges in addressing fragility and innovations to build resilience in five cities: (1) Bangkok, Thailand; (2) Dhaka, Bangladesh; (3) Mumbai, India; (4) Lagos, Nigeria; and (5) Medellín, Colombia.

These cities were selected for their diversity across many dimensions: population size, growth rate, and density; level of economic development and income inequality; location in a post-conflict or stable country; presence of organized crime and rate of criminal violence; level of infrastructure, such as roads and public transportation; and

4 Judith Rodin, “The Transformation of Medellín Provides a Model for Cities Worldwide,” *The Guardian*, April 10, 2014, available at www.theguardian.com/cities/2014/apr/10/medellin-transformation-model-cities-worldwide-resilience.

5 Rockefeller Foundation, “City Resilience Framework,” November 2014, available at www.rockefellerfoundation.org/report/city-resilience-framework-2/.

6 For more information, see www.idrc.ca/EN/AboutUs/Donor_Partnerships/saic/Pages/default.aspx.

7 The Cities in Fragile States program at the London School of Economics' Crisis States Research Centre is led by Jo Beall. For more information, see www.lse.ac.uk/internationalDevelopment/research/crisisStates/Research/cafs.aspx.

availability of housing and number of residents in informal settlements. The analyses are inclusive, examining the special situations of women, young people, and migrants and their participation in building urban resilience.

Each case study explores the following themes, with an understanding of their interconnected nature:

- **Peace and security**, including criminal violence, police presence, and public safety;
- **Development**, including poverty, literacy and education, and access to food and water; and
- **Governance**, including city management and urban planning; critical challenges such as lack of capacity, corruption, and failing revenue systems; and the presence or absence of a social contract between citizens and the government.

The project included two expert-level meetings in 2014 to gather feedback and lessons related to the selected cities and address broader questions on urban fragility and resilience. In March 2014, approximately thirty experts and policymakers convened at ISAS at the National University of Singapore, and in June 2014, thirty experts gathered at IPI in New York. Both meetings were organized around the three themes of security, development, and governance, allowing for discussion and comparison of multiple case studies to learn lessons in each area. Discussants and participants were asked to share their hands-on experience in city management, development, and security and fragility analysis. This dialogue and knowledge sharing informed the recommendations

and innovative approaches highlighted throughout this report.

TOWARD COLLECTIVE URBAN RESILIENCE

In many regions today, urban environments are undergoing rapid changes. Density, unpredictability, and vulnerabilities in many cities require new responses. There are many examples—some captured in the case studies that follow—of the resilience and resourcefulness of individual people and communities. But the real stress test for today's cities is whether the poor and marginalized have access to the key features of resilient systems: safety, economic opportunity, spatial integration, and mobility. Holistic, sustainable policies can eliminate physical and social barriers to social cohesion and help communities overcome increasingly complex urban stresses. As urban populations become more interconnected and interdependent, collective resilience is a prerequisite for individual resilience.

The city case studies that follow demonstrate that every city is fragile in different ways. But within this diverse spectrum of fragility, three common features of fragile cities emerge: socioeconomic and spatial segregation, rapid population growth, and suboptimal governance systems. With a view to facilitating collective urban resilience, the report's conclusion captures cross-cutting lessons and key guiding principles for planning, governance, decision making, and policymaking that can help address common sources of stress.

Inequality, Fragility, and Resilience in Bangkok

*Apiwat Ratanawaraha**

Introduction

As Bangkok continues to grow and modernize, the Southeast Asian megacity of more than 13 million residents has experienced a series of economic, environmental, and political shocks.¹ The financial crisis in the late 1990s hit the capital of Thailand hard, leaving many people jobless and a number of buildings with construction that remains incomplete to this day. The 2008 global financial crisis dented the otherwise relatively robust Thai economy; Thailand's gross domestic product (GDP) per capita dropped from \$4,118 in 2008 to \$3,979 in 2009.²

Severe flooding in Thailand during the 2011 monsoon season lasted several months. Because Bangkok is at the bottom of the Chao Phraya River delta and some areas are one meter below sea level, a wide area of the metropolitan region was inundated until mid-January 2012. The flooding in Bangkok was the worst in the country in terms of the amount of water and number of people affected. According to an estimate by the World Bank in 2012, the economic damages and losses due to the flooding in twenty-six heavily-affected provinces, including Bangkok, were as great as 1.4 trillion baht (\$45.7 billion). The flood directly affected 13.6 million people and caused as many as 815 deaths,³ making it one of the costliest natural disasters in modern history.⁴

This series of economic and environmental shocks took place amid fundamental changes in the country's political regime stemming from political conflicts that have been ongoing for almost a decade. The city has become a political battleground, with mass demonstrations, barricades and blockades, closures of airports and government offices, looting and shooting in the streets, burning

tires and buildings, and the resulting injuries and deaths. Even though the military government has firmly solidified power since the coup in May 2014, an undercurrent of political hostility lingers, without any end in sight. With such political uncertainty, the economy faces deflation and possible recession.

Every time a shock takes place, Bangkok seems to bounce back. Even after violence led to more than 100 deaths and a number of buildings being burned down in 2010, the city was back to business in a matter of days. The economy continues to grow, tourists keep coming, roads and subways continue to be built, the garbage and blood stains on the streets are cleaned up, and people return to enjoying the street food and shopping. So why do we need to talk about urban fragility and resilience in Bangkok? Can we not take it for granted that the city will naturally bounce back again?

The broad picture of Bangkok's recovery and resilience disguises individual fragility and the hardships and obstacles that poor and vulnerable populations face during the recovery process. While the upper and middle classes may be able to avoid the shocks altogether or recover quickly, poor and vulnerable populations invariably take more time to recover, if they recover at all. Urban fragility and resilience are unevenly distributed across different socioeconomic groups in Bangkok. Moreover, every new shock is more difficult to deal with as the city grows larger and its urban systems more complex and fragile.

DEFINING BANGKOK'S URBAN FRAGILITY AND RESILIENCE

Urban fragility can generally be defined as the extent to which urban systems are susceptible to damage incurred by shocks. Urban systems here

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1 As used here, the term Bangkok refers to the whole Bangkok Metropolitan Region (BMR), which includes the Bangkok Metropolitan Administration (BMA) and five surrounding provinces.

2 National Economic and Social Development Board, "National Accounts," 2008/2009.

3 24/7 Emergency Operation Center for Flood, Storms and Landslide, report [in Thai], January 17, 2012.

4 World Bank, "Thai Flood 2011: Rapid Assessment for Resilient Recovery and Reconstruction Planning," 2012, available at

<http://documents.worldbank.org/curated/en/2012/01/16360869/thai-flood-2011-rapid-assessment-resilient-recovery-reconstruction-planning-vol-1-2-overview> .

include not only infrastructure and ecological systems but also social, economic, and political systems. Shocks range from natural disasters, such as floods and storm surges, to economic shocks, such as recession, to political shocks and terrorist attacks. Certain types of shocks, such as floods, may seem to affect everyone in the city, regardless of socioeconomic status. But in reality, these shocks tend to affect poor and disadvantaged people more. Their livelihoods are more vulnerable, as they have fewer resources and capabilities to rely on than the upper and middle classes.

Therefore, an analysis of urban fragility, at least in the case of Bangkok, cannot focus solely on the urban system as a whole. It needs to make explicit the socioeconomic and political differences across households and communities, because these differences ultimately determine the degree of fragility each individual or household experiences. In addition, urban fragility should not be conceived as a set of fixed and predetermined features, but as a condition that can be improved with appropriate interventions.

It is also important to recognize the spatial dimensions of urban fragility. The degree of fragility is determined by interactions between types and degrees of shocks and socioeconomic factors. Security, development, and governance all have spatial dimensions. For instance, many informal settlements in Bangkok are located along the Chao Phraya River and its tributary canals. The houses in these settlements are often damaged by flooding, and the residents are exposed every day to health hazards, as most of the canals are dirty and polluted. Some inner areas of Bangkok, on the contrary, are better protected from floods for economic and political reasons. This indicates that urban fragility is not uniformly distributed, even in the same city, and is often determined by factors of political economy.

A number of features of resilient systems have already been identified in the literature. The Rockefeller Foundation has identified the following features:⁵

- Spare capacity: the availability of backups or alternatives when a core system component fails
- Flexibility: the ability to change, evolve, and

adapt in the face of shocks

- Safe failure: the containment of failures to prevent them from affecting the whole system
- Rapid rebound: the capacity to reestablish functionality and avoid long-term disruptions
- Constant learning: an information feedback loop that leads to new solutions as conditions change

If a city has the above features in place, it can be expected to be relatively resilient. However, even if a city as a whole appears to be resilient, its poor and disadvantaged populations may be fragile. Thus, the real litmus test for urban resilience is whether the poor and their communities have the key features of resilient systems identified above.

COLLECTIVE RESILIENCE

Urban resilience is not just about the ability to withstand exposure to shocks but also the capacity to recover from their negative impacts. Moreover, it is not just about recovering to the original state—as it is usually defined in engineering—but about transforming from one state to another that is more efficient, equitable, and sustainable. Many factors prevent such a transformation among Bangkok's poor and vulnerable populations, making them fragile and keeping them vulnerable.

Individually, humans are inherently resilient. For every stumble or fall, we learn how to rise up and move forward. We adapt and improve ourselves so we are better prepared, ready to rebound more quickly, and stronger each time. But collective resilience is something we have to learn and acquire as we interact with other people in society. Even though we have social institutions that contribute to collective resilience, such as norms, customs, and trust, these institutions are weaker in a fast-growing and rapidly urbanizing city such as Bangkok. People with different socioeconomic backgrounds from different regions have little time to learn about one another to build collective urban resilience. No existing social institutions are in place for these urban strangers to interact and take collective action during shocks.

In addition, in today's hyper-connected world, it has become increasingly difficult to prepare for shocks and recover from them quickly by ourselves. Individual resilience may depend on

5 Rockefeller Foundation, "City Resilience Framework," April 2014, available at www.rockefellerfoundation.org/app/uploads/City-Resilience-Framework1.pdf.

each person's resources and capabilities, but the shocks we face are increasingly large, fast, and complex. As such, collective resilience is even more important; in fact, collective resilience is increasingly a prerequisite for individual resilience.

Based on the conceptual framework above, this study reviews Bangkok's sources of urban fragility, the implications for urban security, development, and governance, and efforts to deal with the sources and effects of fragility. While many factors affect urban fragility and resilience, the main argument is that inequality is the most pressing source of stress that makes the city fragile and vulnerable to environmental, economic, and political shocks. Increasing inequality in Bangkok has spatial dimensions manifested in physical segregation of urban space through exclusive urban development projects. This segregation makes it difficult for social cohesion to develop at the local level. Collective resilience has spatial implications in that a lack of social cohesion within and among communities makes it difficult to take the collective action required for building resilience. Increasing inequality affects the ability of Bangkok's residents to collectively develop institutions to deal with the differences in their socioeconomic backgrounds and political beliefs. It amplifies the social cleavages that naturally result from urbanization, as strangers from different regions or countries have to live, travel, and work next to one another. Spatial segregation also makes it difficult to provide adequate and efficient public services, making the poor even more vulnerable.

Sources of Stress and Fragility

Several interrelated factors contribute to the stress and fragility that affect Bangkok residents, particularly its poor and vulnerable populations. The following are key sources of stress that particularly define Bangkok's fragility and pose challenges to its becoming more resilient.

RAPID DEMOGRAPHIC CHANGES

Rapid demographic changes, in terms of both the population's absolute size and its composition, tremendously strain the city's limited space and ability to provide public services. Large influxes of migrants from rural areas have long been a source of stress on Bangkok's land and housing. Although Thailand's population growth rate has decreased to about 0.4 percent in 2015, and its population has aged, with 16.5 percent older than 60 in 2015, migration to Bangkok continues.⁶ The total registered population in the Bangkok Metropolitan Region (BMR) is estimated to have increased from 13.53 million in 2010 to 14.5 million in 2015 and is projected to increase to 15.32 million in 2020, with an average growth of 1.04 percent per year.⁷ The actual population, including unregistered residents, is certainly much larger. Some inner areas of Bangkok may be experiencing population decline, but population growth continues in the suburbs, including the surrounding provinces that constitute the BMR.

In recent years, more foreign workers have migrated to the capital region, primarily from Myanmar, Cambodia, and Laos. About 600,000 foreign migrants are registered to work in the BMR, and many more unregistered migrants work in the metropolitan region. These migrants contribute to the economy by supplying cheap, unskilled labor to the service and manufacturing industries. However, they receive limited support and protection from the state, making them vulnerable. Many of them have lived in Thailand for a long time, and some have children who were born in the country, but they do not have permanent residency, let alone citizenship. In some areas of the city with large numbers of foreign migrants, tensions are increasing between the migrants and local Thais.

These demographic trends are accompanied by the problem of "residency without representation," which applies not only to foreign immigrants but also to Thai residents of Bangkok. Many poor and

6 Institute for Population and Social Research, Mahidol University, "Population in Thailand" [in Thai], 2015, available at www.ipsr.mahidol.ac.th/ipsrbeta/th/Gazette.aspx.

7 National Economic and Social Development Board, "Population Projections for Thailand 2010–2040," 2013, available at <http://social.nesdb.go.th/social/Portals/0/Documents/การคาดหมายประชากร%20e-book.pdf>.

vulnerable populations, particularly those without property in Bangkok, do not have the right to vote locally because they are registered elsewhere. According to the 2010 population census, 14.57 million people live in the BMR, but only 10.33 million are registered locally. The other 4.24 million are registered in other parts of the country due to archaic regulations for household registration.⁸ Many are still registered in the province where they were born or are originally from, which is where they have direct political representation. As a result, they cannot vote in local elections in Bangkok. This is a latent yet critical source of stress for the city that has not been rectified and seldom publicly debated. It could have implications for governance that affect efforts to build urban resilience.

UNCONTROLLED URBAN DEVELOPMENT

As Bangkok continues to urbanize, it has expanded into the suburbs and, more recently, into the exurbs. In the past decade, Bangkok's population increased at a higher rate in the outer areas than in the inner areas. Due to inadequate urban planning and ineffective control of land use, urban sprawl occurs everywhere in the capital region. Bangkok's built-up areas have extended beyond the administrative boundaries of the Bangkok Metropolitan Administration (BMA). Subdivision projects for houses, shophouses, and industrial estates encroach on the fertile agricultural land surrounding the city, as well as the natural floodplains that once let water from the hilly north flow into the ocean. Unplanned urban development has made the city even more vulnerable to flooding than before. Urban sprawl has also made it difficult to provide efficient public services.

In principle, a megacity with built-up areas that extend beyond administrative boundaries should have a functional regional-level development plan that comprehensively covers the urban region, as well as a regional-level governance structure that supports the plan and its implementation. Although there have been a few regional plans for Bangkok, none have been implemented.

INCREASING INEQUALITY AND SPATIAL SEGREGATION

Economic inequality is arguably the most serious source of stress and fragility for Bangkok. Thailand has rapidly urbanized at the same time as economic inequality has increased. While Bangkok has enjoyed sustained economic growth over the past four decades, economic inequality has increased. This uneven economic growth increases Bangkok's fragility by reinforcing spatial segregation and reducing social cohesion, both horizontally, among people with similar socioeconomic backgrounds, and vertically, among people with different backgrounds.

Inequality is increasing on two fronts: between Bangkok and the rest of the country, and among households and communities within Bangkok itself. As Thailand continues to urbanize, Bangkok is growing and expanding beyond the administrative boundaries of the BMA to form a mega-urban-region. The BMR today is more than thirty times larger than Udon Thani, the second most populous city in Thailand. The primacy of Bangkok is not limited to its population but also extends to its economic output. In 2013, the BMR accounted for about 50 percent of Thailand's GDP, even though it only has about 22 percent of the country's population.⁹

For more than thirty years, the government has attempted to reduce the economic gap between Bangkok and the rest of the country through various policies and programs, including a regional "growth pole" policy, but with little success. Although manufacturing employment shifted significantly from the industrial core of Bangkok during the first few years of the twenty-first century (1996–2005), the BMR still provides nearly 50 percent of the country's total manufacturing employment. It also generated as much as 64.1 percent of Thailand's total public revenues in 2012.¹⁰ And even though the city of Bangkok (as distinct from the BMR) represented about 17 percent of the national population and contributed roughly 28 percent of GDP in 2010, it received about 72 percent of government expenditures. By

8 National Statistical Office of Thailand, "2010 Population and Housing Census," 2011, available at <http://popcensus.nso.go.th/en/>.

9 National Economic and Social Development Board, "National Accounts," 2014.

10 Author's calculation based on data from the National Tax Collection Reports published by Thailand's Revenue Department, available at www.rd.go.th/publish/46942.0.html [in Thai].

contrast, the northeast, which is the poorest region, represents about 34 percent of the population and 12 percent of the GDP but receives only 5.8 percent of total expenditures.¹¹

The economic gap between Bangkok and the rest of Thailand has increased drastically in the past thirty years. The gap in gross provincial product (GPP) per capita between Bangkok and the province with the lowest GPP per capita, usually in northeastern Thailand, has increased from a ratio of about 1:11 in 1981 to about 1:16 in 2011.¹² The income disparity between the BMR and other provinces has reinforced the influx of both temporary and permanent migrants into the capital region. These migrants often move into the city with little financial support and limited capabilities and skills.

Within Bangkok, inequality in terms of income, wealth, and opportunities is increasingly visible. Inequality in Bangkok is manifested in strikingly different patterns of material ownership and consumption, such as of land, housing, and private cars, and in unequal access to essential services, such as public transportation, hospitals, and schools. Almost all aspects of urban life in Bangkok reflect serious inequalities in terms of economic outcomes and opportunities.

Skewed distribution of land ownership in Bangkok and surrounding provinces is one factor underlying increasing inequality in the metropolitan region. This inequality in land ownership has

serious implications for urban fragility and resilience, particularly because it has spatial and locational dimensions. According to a 2008 survey by the Community Organization Development Institute (CODI), there are as many as 1,266 slums, or “congested communities,” in Bangkok, and another 682 in three surrounding provinces. At the same time, a small number of landlords own a large amount of the land (see Table 1).¹³

PHYSICAL SEGREGATION

In addition to demographic changes, urban sprawl, and rising economic inequality, gated communities have proliferated in Bangkok. These communities control entry of outsiders through a combination of gates and closed perimeters. People of different classes and ethnicities, such as Chinese and Muslim communities, have long lived in social enclaves in Bangkok, but they were never physically separated by the high walls and tall gates of today’s gated communities. Gated communities are a response to growing urban congestion, deteriorating quality of life, and general stress associated with big cities. They are as much a lifestyle choice as a status symbol. The desire for security, safety, privacy, prestige, and quiet lures people with sufficient means into these walled villages. Gates and walls are therefore physical tools used to satisfy specific physiological, psychological, and social needs.

Gated communities also respond to the increasing demand for social stratification and physical demarcation. The rise of Thailand’s urban

Table 1. Land owned by top owners in Bangkok and surrounding provinces¹⁴

| Province | Top owner (square km) | 50 top owners (percent of total land) |
|--------------|-----------------------|---------------------------------------|
| Bangkok | 23.64 | 10.1 |
| Pathum Thani | 46.40 | 12.4 |
| Samut Prakan | 27.23 | 11.7 |
| Nonthaburi | 10.71 | 7.7 |
| Nakorn Nayok | 54.96 | 5.3 |

11 World Bank, “Thailand: Public Finance Management Report,” 2012, p. 28, available at www-wds.worldbank.org/external/default/WDSContentServer/WDS/IB/2012/06/20/000333038_20120620014639/Rendered/PDF/674860ESW0P1180019006020120RB0EDITS.pdf.

12 Author’s calculation based on data from the National Accounts Reports published by the National Economic and Social Development Board, 1981 and 2011.

13 Community Organization Development Institute, “Baan Mankong Implementation Results” [in Thai], 2008, p. 27, available at www.codi.or.th/attachments/article/7391/baanmankong_5.pdf.

14 Data from Pasuk Phongpaichit, “Inequality and Conflicts” [in Thai], public lecture, Chulalongkorn University, Bangkok, Thailand, February 2, 2011.

middle class has been accompanied by fervent consumerism and increased status consciousness. Like personal cars, gated communities signal social status. In fact, a house in a gated village is usually accompanied by at least one car. As gated communities are often located in suburban and exurban areas with limited access to public transportation, residents need to be able to afford both personal cars and gated communities.

DIGITAL POLITICS AND VIRTUAL SEGREGATION

Urban fragility is about not just physical fragility but also virtual fragility. Dramatic growth in the use of digital media in daily life has contributed to social and political fragility in Bangkok, as well as in Thailand as a whole. Social media, in particular, has become a forceful driver of societal change in the country. Bangkok is the city with the most Facebook users in the world, with 8.68 million users out of 14.6 million in the whole country.¹⁵ While no systematic empirical research has investigated how this proliferation of social media affects Thai society, its effects are evident, for better or for worse.

The political conflict in 2005 was perhaps the first time that political activities in Thailand became noticeable in the virtual world. Digital politics (i.e., political communication on digital media) moved to the forefront during the 2008–2010 political crisis. The current clashes among various societal factions are occurring not just on the streets but also on the digital highway. As the political situation intensifies, social media users in Thailand are increasingly “unfriending” one another on Facebook. Hate speech on Facebook pages and message boards is not uncommon.

More people in Bangkok now live not only in gated communities and exclusive condos but also in “self-reinforcing information cocoons” in which they only talk and listen to people with the same political views.¹⁶ People can instantaneously and anonymously convey their emotions online and can easily segregate anyone they do not like or feel comfortable with. This “opt-out” attitude creates a negative feedback loop, and people interact only with those who have similar views, reinforcing

preexisting biases. This could lead to even more extreme and radical views and reduce diverse political discussion both online and offline. The effects spill over onto the streets. While political activism in the digital sphere is increasingly a global phenomenon, in Bangkok the virtual segregation by political ideology further reinforces the physical segregation, thereby amplifying and exacerbating existing urban fragility.

Implications for Security, Development, and Governance

Rising socioeconomic inequality in Bangkok amplifies the physical and social stresses caused by demographic changes and uncontrolled urban development. As a physical manifestation of this inequality, urban space is increasingly privatized through the proliferation of gated communities, which are built specifically for the rich and the middle class. As urban land is scarce, the development of expensive gated communities in the suburbs and condominiums in prime locations makes it even more difficult for the poor and lower-middle class to find affordable housing in the city.

This stress is reflected not just in consumption of land and other resources but also in the deterioration of the social cohesion that forms the basis for collective resilience and the ability to respond to shocks. There is little, if any, social interaction between residents in gated communities and those who live nearby but outside the walls. There are no platforms for them to build the social and political relationships that are essential to building resilience at the community and city levels.

The increasing obsession with digital media is also making it even more difficult to build social cohesion among strangers who live in proximity in urban settings. People of different economic classes and political preferences find no need to exchange ideas, as they can easily choose whom to interact with virtually online. In addition to physical segregation, this virtual segregation has serious implications for urban security, development, and

15 Socialbakers Statistics, “Top 10 Biggest Facebook Cities,” June 14, 2012, available at www.socialbakers.com/blog/647-top-10-biggest-facebook-cities.

16 Cass Sunstein, “How Voters Can Escape from Information Cocoons,” Bloomberg View, September 3, 2012, available at www.bloomberg.com/news/2012-09-03/how-voters-can-escape-from-information-cocoons.html.

governance.

In terms of urban security, spatial segregation reinforces the perception that gated communities increase security for residents. This is despite the fact that Bangkok has a relatively moderate crime rate compared to other cities around the world. The city's homicide rate is relatively low, at 3.98 per 100,000 inhabitants in 2009.¹⁷ The number of police per capita, which is one measure of a city's resources and ability to ensure peace and order, is one for every 139 residents, or 720 police per 100,000 residents.¹⁸ This figure is much higher than in Mumbai, which had about 253 policemen per 100,000 residents in 2009–2010,¹⁹ and slightly higher than Washington, DC, which had 685 policemen per 100,000 residents in 2014, the highest in the United States.²⁰

Nonetheless, Bangkok's residents prefer to live in gated communities, if they can afford them. This is perhaps due to the fact that home burglary is the most reported crime in the city. According to the Metropolitan Police Bureau, in 2010, there were 12,347 home burglaries, followed by 5,504 motorcycle thefts and 3,694 assaults.²¹ The prevalence of home burglaries propels the private security business and the desire to live in secluded neighborhoods. As more housing development projects service upper- and middle-class consumers, urban space is being privatized by and for people who desire exclusivity and the perception of security created by walls, guards, and gates.

This privatization of urban space has ramifications beyond public security. It also affects urban governance, particularly in terms of the quantity and quality of public services. Bangkok has a dire need for well-connected networks of roads and other utilities, but the widespread development of gated communities is a serious obstacle to efficient and effective service provision. Roads within gated communities are often exclusive and connected to main streets at only one or two access points. This piecemeal development negatively affects the overall connectivity of road networks.

It also makes it more difficult to reach a minimum efficient scale for other types of infrastructure, as service areas are segregated by gated community. The low population density and disjointed infrastructure networks make it more expensive to provide services in areas where gated communities are located. Bus services, for instance, are not financially feasible when there are many dead-end lanes, small roads, and disjointed secondary roads. This, in turn, affects the poor, whose mobility depends mainly on public bus services and, to some extent, informal modes of transportation, such as motorcycle taxis. However, informal transportation in Bangkok, including motorcycle taxis and passenger vans, is not necessarily cheap. Informal transportation is in many ways a captive market, as people have no choice but to use it. This economic burden makes Bangkok's poor populations even more fragile and vulnerable to shocks.

Inequality and segregation in Bangkok have serious implications for access to basic services—less for basic utilities and food than for housing, education, and healthcare. Basic utilities in Bangkok, such as water and electricity, are provided by state enterprises, which have been successful in providing services, both in terms of coverage and quality. But other public services, such as garbage collection and public schools, have substantial room for improvement. Good primary and secondary schools are concentrated in inner areas of the city, where the upper and middle classes can drive their children. These families have no incentives to advocate for better school systems in their neighborhoods and nearby. Those with less income send their children to local schools, which tend to be of lower quality. Similar problems apply to healthcare services. Access to basic healthcare has improved significantly with the universal healthcare scheme enacted in 2003, but healthcare facilities are not planned according to urban development patterns.

Urban governance and management is difficult

17 UN Office on Drugs and Crime, Homicide Statistics, 2010, available at www.unodc.org/unodc/en/data-and-analysis/statistics/crime.html.

18 Office of the Civil Service Commission, "Report on Public Human Resources" [in Thai], 2010, available at www.ocsc.go.th/ocsc/th/files/KPR/kamlungkon_p_53.pdf.

19 Kala Seetharam Sridhar and Nivedita Kashyap, "State of India's Cities: An Assessment of Urban Conditions in Four Mega Cities," Public Affairs Centre, 2012, available at <http://pacindia.org/uploads/default/files/publications/pdf/3320be07dd2b01b467376c393518726a.pdf>.

20 Mike Maciag, "Which Cities Have the Biggest Police Presence?" *Governing*, May 9, 2014, available at www.governing.com/topics/public-justice-safety/gov-cities-with-the-greatest-police-presence-most-officers-per-capita.html.

21 Office of Information and Communication Technology, Royal Thai Police, Criminal Case Statistics [in Thai], 2010.

when upper- and middle-class taxpayers opt for club goods within their walls in suburban locations instead of supporting provision of public goods for everyone in the city. Thailand's inadequate property tax system exacerbates this problem. Land owners are barely taxed for the ownership and use of their land, because the basis for value assessment dates back to 1978, and current tax laws have many exemptions, notably for residential land use. As a result, the upper and middle classes living in gated communities contribute little to local government revenue. Urban managers and planners have to find ways to strike a balance between the individual pursuit of happiness that comes with physical exclusivity and the overall provision of public goods and social cohesion. Currently, politicians and planners do not seem to be considering this balance. They have not proposed a single idea or measure for dealing with the trend of physical segregation.

Collective resilience requires collective action. One necessary, if not sufficient, condition for building collective action in communities is citizens' participation in local civic activities. Community residents can build social capital as they engage more in local civic activities. This engagement creates social space for residents to interact and learn from one another, creating interpersonal connections that could build mutual understanding and trust.

Rapid demographic changes affect the ability of urban residents to create social cohesion in their communities. As in any city that has experienced rapid in-migration, strangers live and work next to one another in Bangkok. Because it takes time to build trust and informal institutions that glue people together, the stress of living next to strangers creates not just physical but also psychological stress on individuals and society as a whole. Increasing inequality further undermines the effort to build collective action. The upper and middle classes buy social capital by choosing to live in gated communities built with management associations. They rely on non-state institutions to create social order. Sometimes they can buy social cohesion, if not necessarily local friendship. While there is no empirical evidence on the level of community participation in gated communities, it seems they can offer more security, development in terms of service provision, and governance. Even if

there is order, and possibly social cohesion, within gated communities, this often does not translate into social cohesion across communities. During the 2011 mega-flood, there were a number of instances where gated communities and their surrounding communities faced off against one another as they tried to protect their own communities by putting up walls and sandbags.

Lessons for Resilience

Reducing social and economic inequalities should be at the heart of reducing urban fragility and enhancing resilience. There is increasing interest in reducing inequalities in Thailand, now that it is widely recognized that inequality is the root cause of the ongoing political conflict. In 2010, the government set up an agency named Reform Thailand to mobilize stakeholders from different walks of life to participate in a deliberative process of developing policies and initiatives for reform. This process produced a significant number of ideas, but the agency did not receive further support from the government and ceased to function in 2013. Nonetheless, efforts are underway in various sectors to target economic and social inequality in Thailand.

Even though large-scale reform efforts have stalled at the national level, a few ongoing initiatives have been successful in building resilience at the community level in Bangkok. One notable example is the Baan Mankong, or secure housing, program of the Community Organization Development Institute (CODI). Recognizing that lack of access to land security is a serious source of fragility in the city, the Baan Mankong program has successfully increased land and housing security for the poor by letting networks of community organizers and residents be at the center of efforts to acquire land for housing and build the houses themselves. CODI helps them secure financing for purchase or long-term lease of land.

Pro-poor policies with urban dimensions, such as affordable housing and free public buses, may reduce the burden the poor face in their everyday lives and thus increase their resilience. However, these policies do not address systemic inequality, segregation, and urban fragility. It is not possible to build Bangkok's strength and resilience without resolving structural issues at the national level.

Building urban resilience in Bangkok without dealing with the larger picture of inequality at the national level would only exacerbate problems that are driven by regional disparities.

Several ideas have been proposed for reducing social and economic inequality in Thailand, such as tax reform, land reform, and educational reform. Such interventions are necessary to build urban resilience in Bangkok. In addition to structural intervention at the national level, efforts to build urban resilience in Bangkok will have to be more explicit in dealing with inequality and spatial segregation. Fiscal and urban planning measures that explicitly target those issues will have to be developed and implemented. This requires that the urban planning process in Bangkok aim at alleviating spatial inequality and segregation and adopt a new approach. A set of principles should be at the core of such a transformation. Even though some of these principles may seem basic, they are important enough to be stressed again here:

1. **Recognition of spatial inequality in Bangkok's urban planning**
The field of urban planning in Thailand has paid little, if any, attention to issues of inequality. The focus has been primarily on efficient land use and infrastructure. Because poverty and inequality have spatial dimensions, urban planners have to change their mindset and develop urban plans both at the city and community levels that address those issues.
2. **Paradigm shift toward scenario planning**
There needs to be a paradigm shift from the rigid "comprehensive planning" approach to urban planning that has been used in Thailand, with little effect, for fifty years. This should be replaced with a scenario-based approach that focuses on stresses and uncertainties to prepare the city for different future scenarios.
3. **Regional planning and governance**
The BMR needs a regional development plan with legal backing and concrete instruments for implementation. A regional-level governance structure needs to be established to coordinate the regional plan among local and national government agencies within the BMR.
4. **Land value-capture mechanisms**
The extreme inequality in land ownership in Thailand is attributable to a lack of mechanisms to capture the value of land. The lack of these mechanisms has allowed landowners to benefit from public investment in infrastructure and accumulate substantial wealth without paying back proportionately to the community. A value-capture mechanism should be established to increase the opportunity costs of land ownership. Efforts should include reforming the property tax system and perhaps introducing special assessment levies.
5. **Land use regulations and design guidelines that support more inclusive urban development**
It is important that urban planning strike a balance between the individual pursuit of happiness that comes with physical exclusivity and the overall provision of public goods and social cohesion. This requires more resources for urban planning professionals to develop and implement urban plans and regulations that tackle spatial segregation and social inequality.
6. **Community-level institutions and civic participation**
Urban resilience in Bangkok will require community-level institutions that have not yet been developed and civic participation of all residents, regardless of their socioeconomic background.

Dhaka: Stressed but Alive!

Imtiaz Ahmed*

Introduction

Dhaka remains an enigma. There is a mysterious side to its birth. The city's name seems to derive from the temple of the "hidden goddess" Dhakeshwari, suggesting its remoteness and secretive origins. It was made remote by uninhabitable forests and countless waterways, which helped to protect its sanctity. Uncertainty exists as to when Dhaka came into being. Some estimates date it back 400 years, some 600, and some even take the birth of the city as far back as the sixth century.¹ The city attained some distinction in the seventeenth century during the Mughal era when it became the capital of Subah-e-Bangla, the province of Bengal, around 1610 (some say 1608).²

There is, however, consensus on one particular issue related to the birth of Dhaka: it could not have emerged without the waterways—the rivers, khals (or canals), ponds, and lakes that made the place accessible to trade and habitation. Dhaka is practically encircled by rivers and canals. The south of the city is bordered by the river Buriganga; in the east flow the Balu and Shitalakshya rivers; in the west, there is the river Turag; and in the north flows the Tongi canal. As late as the nineteenth century, James Taylor, a British officer stationed in Bengal, found Dhaka to have, "with its minarets and spacious buildings, the appearance, like that of Venice in the West, of a city rising from the surface of the water."³ This merits attention not only because Dhaka has a different look now, with more bricks and mortar than water, but also because many of the stresses faced by the city can be linked to this transformation. The birth of Dhaka is

inextricably linked to the rivers flowing from various parts of Bangladesh and beyond.

But what is a city without people? As Aristotle reminded us, "A city is composed of different kinds of men; similar people cannot bring a city into existence."⁴ Like the waterways, people have flowed into Dhaka and made the city what it is now. Over the past 400 years, people of different races, religions, and languages have arrived, including Afghans, Armenians, Arabs, Chinese, Persians, Greeks, Portuguese, Dutch, French, and English, mostly for reasons of trade and commerce. After Bangladesh gained independence in 1971, Dhaka found itself flooded with people from all over the country, mostly seeking shelter and employment. The population of the city increased from a meager 69,000 when the first census was conducted in 1872 to nearly 240,000 in 1941, more than 2 million in 1974, 10 million in 2001, and a little over 15 million in 2014; it is projected to have approximately 20 million people by 2025.⁵ This population growth has transformed the composition of the city. In addition to becoming a megacity and experiencing all the related ills, particularly against the backdrop of inadequate infrastructure, the city has continued to grow, thanks mostly to the female workers arriving from rural areas and now employed in the garment sector in and around the city.

Masses of disempowered people residing in one location and hearing about the loss of a "glorious past" and imminent arrival of a "heavenly future" had political consequences as well. Postcolonial Dhaka, which had thrust upon it the responsibility of redressing the grievances of the disempowered, soon became a political city. In postcolonial

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1 Kazi Khaleed Ashraf, *Designing Dhaka: A Manifesto for a Better City* (Dhaka: LOKA, 2012), pp. 23–24.

2 The date Dhaka became the capital is still disputed, with some saying 1608 and some 1610. The former probably represents the proclamation of the capital and the latter its actual establishment. See Ershad Kamol, "Controversy Rages on the Year of Proclamation," *Daily Star*, July 31, 2008, available at http://archive.thedailystar.net/newDesign/print_news.php?nid=48173.

3 James Taylor, *A Sketch of the Topography and Statistics of Dacca* (Calcutta: Military Orphan Press, 1840), p. 86. Also cited in Iftekhar Iqbal, "First Master Plan for Dhaka City: An Environmental Exploration," *Sudasien-Chronik/South Asia Chronicle*, Sudasien-Seminar der Humboldt-Universität zu Berlin, 3 (2013), p. 11.

4 Aristotle, *The Politics*, quoted in Richard Sennett, *Flesh and Stone: The Body and the City in Western Civilization* (New York: W.W. Norton & Company, 1996), p. 13.

5 Shahadat Hossain, "Rapid Urban Growth and Poverty in Dhaka City," *Bangladesh e-Journal of Sociology* 5, no. 1 (2008), p. 11. See also Iqbal, "First Master Plan for Dhaka City"; and Index Mundi, "Bangladesh Demographics Profile 2014," available at www.indexmundi.com/bangladesh/demographics_profile.html.

Bangladesh, all great political movements took place in Dhaka: the movement saying “No!” to Pakistan’s governor-general, Muhammad Ali Jinnah, in 1948, when he declared, “Let me make it very clear to you that the State Language of Pakistan is going to be Urdu and no other language”;⁶ the shedding of blood for the restoration of the mother tongue in 1952; the noncooperation movement against Pakistan’s former president, Mohammad Ayub Khan, from 1968 to 1969; the raising of the flag of the new nation in 1971; the overthrow of the military government of Hussain Muhammad Ershad in 1991; and all other major movements of recent times. Even now, almost every day, there are street processions, human chains, slogans, and speeches passionately calling for the democratization of the state and society and making various demands.

These political movements also have a negative side. Dhaka has experienced significant violence as a result of political agitation, which has resulted in numerous deaths. Given its concentration of power and wealth, the city also harbors corruption of all kinds.

Dhaka, although originally a hydrological city, is now a land-centric megacity that also carries the burden of being a political city. It is the combination of all three—water, land, and politics—that has made Dhaka overly stressed but at the same time alive. This will be further discussed in the next section, with a focus on three areas: development, governance, and security.

Sources of Stress and Fragility

(MAL)DEVELOPMENT

Dhaka’s “maldevelopment”—the failure of its conditions to meet the needs of its people—has a colonial legacy. The British colonial administration, driven by its own prejudices, transformed the riverine or hydrological city into a land-centric city. During precolonial times, the heart of the city

stood on the banks of the rivers, particularly the Buriganga. The British, enamored by modern technological innovations in transportation and increasingly reliant on roads and railways, shifted the heart of the city from the banks of the Buriganga to the interior north, which is at a slightly higher altitude and relatively dry. The colonial administration replaced the waterways with roads and railways and the boats with rickshaws. Although there were only six rickshaws in Dhaka in 1938, the city had more than 400,000 in 2002 and more than 700,000 in 2012, according to some estimates.⁷ Dhaka soon earned the distinction of being called the rickshaw capital of the world. Roads, railways, and rickshaws transformed Dhaka from what it was in precolonial times.

Migration and Slums

Migrants, including internally displaced persons, contributed to the spectacular growth of Dhaka’s population. The 1947 partition of India flooded Dhaka with Muslim immigrants from across the border, outnumbering the Hindu emigrants leaving the city during the same period.⁸ The city was not prepared to accommodate the sudden rush of Muslim migrants, including non-Bengali Muslims, commonly referred to as Biharis. But before the city could properly accommodate the migrants and complete the development projects necessary to meet the demands of the 1947 partition, it became the center of yet another political struggle—the struggle for independence from Pakistan—from which it emerged as the capital of a new country in 1971. In the aftermath of the nine-month bloody war of independence, a rush of people again migrated to Dhaka on account of unemployment and lack of land entitlement, this time not from outside but from the rural areas of the newborn country. The famines of 1973–1974 drove further migration.

Migration did not stop there. People displaced by economic and environmental insecurities flooded the city, making Dhaka the fastest growing megacity in the world in 2010, with an annual

⁶ See Quaid-i-Azam Mahomed Ali Jinnah, *Speeches as Governor-General of Pakistan 1947–1948* (Karachi: Saifee Printers, n.d.), p. 89.

⁷ Rob Gallagher, *The Rickshaws of Bangladesh* (Dhaka: University Press Limited, 1992), p. 87; Alastair Lawson, “Dhaka’s Beleaguered Rickshaw Wallahs,” BBC News, October 5, 2002, available at http://news.bbc.co.uk/2/hi/programmes/from_our_own_correspondent/2300179.stm; “Rickshaws of Bangladesh and Its History,” We Love Our Bangladesh blog, August 3, 2012, available at http://weloveourbangladesh.blogspot.com/2012/08/rickshaws-of-bangladesh-and-its-history_7522.html.

⁸ The emigration of a large Hindu population from the erstwhile East Pakistan (now Bangladesh) to India in the aftermath of the 1947 partition was mostly from rural areas. See Hossain, “Rapid Urban Growth and Poverty in Dhaka City,” p. 3. See also Kamal Siddiqui et al., *Social Formation in Dhaka City: A Study in Third World Urban Sociology* (Dhaka: University Press Limited, 1990), p. 8.

growth rate of 3.2 percent.⁹ Every year, 300,000 to 400,000 new migrants, mostly disempowered, enter Dhaka.¹⁰ The city lacks infrastructure to cope with such a flow, so the bulk of the rural migrants end up in urban slums. According to one estimate, Dhaka had 4,966 slums in 2005, including approximately 675,000 households and 3.4 million people.¹¹ This is a considerable rise from 2,156 slums in 1991 and 3,007 in 1996.¹² Riverbank erosion, the search for work, and landlessness have been the main reasons those coming to Dhaka end up in slums (20 percent, 40 percent, and 31 percent, respectively).¹³ Of the slum population, less than 10 percent resides on government-owned land, while nearly 90 percent resides on private land.¹⁴ Seventy percent of slum dwellers are unskilled, with little or no literacy.¹⁵ This group of disempowered people hosts not only a vibrant informal market but also “uncivil” elements (including *mastans*, or thugs).¹⁶ These “uncivil” elements play a critical role in ensuring the delivery of essential services that the state often fails to deliver, such as water and electricity, either with money or muscle.

The slum population in Dhaka, despite its disempowered status, has contributed enormously to the economy of Bangladesh, particularly to the development of the ready-made garment sector. Apparel export started in 1978, and the industry now includes 4,500 factories and 4.2 million workers, mostly female, employed in and around Dhaka and living in slums.¹⁷ The growth of this sector resulted from the internationalization of production, commonly referred to as globalization, with companies using cheap labor in other countries to significantly reduce the cost of produc-

tion. Bangladesh quickly became a destination for the garment industry because no other country could offer such a low price for labor. This industrial growth led to further rural migration to the city. Garment factory owners preferred Dhaka to other parts of Bangladesh not only because it was more globally connected but also because putting to work masses of low-wage female laborers in one place helped them remain globally competitive.¹⁸ In 2012, exports of ready-made garments were worth \$24 billion, accounting for nearly 80 percent of the country’s total exports and more than 13 percent of gross domestic product (GDP).¹⁹

Sanitation and Waste Management

Despite its industrial growth, Dhaka lacks many basic necessities, such as public toilets and sanitation. According to one calculation, more than 5 million people in Dhaka lack access to a public toilet.²⁰ The city has only sixty-seven public toilets, only five of which are fully operational with a urinal, washing facilities, and toilets. One researcher found that nearly 70 percent of public toilets are used by the local operators “to wash cars, sell water, sleep, or as small shops,” while only 43 percent of the facilities have a regular water supply, and only 20 percent have working lights.²¹

Dhaka also has problems with waste management. According to one calculation, the waste generation rate in Dhaka ranges from 0.325 to 0.485 kg/capita/day, most of which is from residential areas (more than 75 percent of total solid waste).²² Dhaka City Corporation, the agency in charge of waste collection, lacks the necessary financial and technical resources. Nonetheless, it remains relatively attentive to collecting waste from

9 Erik German and Solana Pyne, “Dhaka: Fastest Growing Megacity in the World,” *Global Post*, September 8, 2010, available at www.globalpost.com/dispatch/asia/100831/bangladesh-megacities-part-one.

10 World Bank, “Dhaka: Improving Living Conditions for the Urban Poor,” Bangladesh Development Series, no. 17, 2007.

11 Nazrul Islam et al., *Slums of Urban Bangladesh: Mapping and Census*, 2005 (Dhaka: Centre for Urban Studies, 2006), p. 33.

12 Urban Research Centre, *Annual Report* (Dhaka: University of Dhaka, 1997).

13 Ibid.

14 Islam et al., *Slums of Urban Bangladesh*, p. 42.

15 Urban Research Centre, *Annual Report*.

16 Kamal Siddiqui et al., *Overcoming the Governance Crisis in Dhaka City* (Dhaka: The University Press Limited, 2000), p. 18.

17 Imtiaz Ahmed, “Bangladesh: Evolving Political Situation,” *ISAS Insights*, Institute of South Asian Studies, National University of Singapore, no. 212 (2013).

18 Naila Kabeer and Simeen Mahmud, “Rags, Riches and Women Workers: Export-Oriented Garment Manufacturing in Bangladesh,” in *Chains of Fortune: Linking Women Producers and Workers with Global Markets* (London: Commonwealth Secretariat, 2004), p. 148.

19 Imtiaz Ahmed, “Bangladesh: Evolving Political Situation.” See also Md. Arifur Rahman and Mir Sohrab Hossain, “Compliance Practices in Garment Industries in Dhaka City,” *Journal of Business and Technology (Dhaka)* 5, no. 2 (2010), p. 71.

20 Carlin Carr, “Public Toilet Disaster in Dhaka,” *Searchlight South Asia*, September 20, 2011, available at <http://moneyspentwell.org/2011/10/public-toilet-disaster-in-dhaka/>.

21 Ibid.

22 Institute of Governance Studies, BRAC University, “State of Cities: Urban Governance in Dhaka,” May 2012, p. 98.

affluent residential areas, which has made municipal waste removal in public streets, public latrines, urinal drains, and dustbins in less fortunate areas all the more ineffectual.²³ This lack of waste management poses a health hazard, particularly for those living in low-income areas and slums.

The pathetic state of public toilets and waste management shows that the “development” of the city is skewed in favor of the ruling elite, with little or no recognition of the plight of the disempowered. As journalist Doug Saunders explains, “When I first came, nobody in Gulshan [an affluent area of Dhaka] seemed to know how to reach the squatter enclave, though they spent all day looking at it... Packed into this dense space are between 16,000 and 20,000 people, living so close together that there are no gaps between their roofs.”²⁴ The gaze of Dhaka’s elite passes over the distress of slum dwellers. This reflects the elite’s “developmentality,” which “demands an endless cycle of inputs, outputs, consumption and waste on a finite planet,” pushing for the relentless growth of the city and contributing to its chaotic state.²⁵

Transportation and Traffic

This “develop-mentality,” based on the image of Western cities, also resulted in the proliferation of machines, particularly cars, which the elite used as markers of power. The proliferation of cars, however, did not facilitate transportation for either the elites or the masses in the long run. According to the Bangladesh Road Transport Authority, every year approximately 37,000 cars are added to Dhaka’s roads, of which 80 percent are private cars.²⁶ This implies that 101 new, mostly private cars are added to the city’s transportation system every day, with the infrastructure (the number of roads, by-lanes, footbridges, etc.) remaining the

same.

Massive traffic jams thus come as no surprise. The elites’ hold on the road is a major factor contributing to this traffic. For example, rickshaws take up 40 percent of the road space and transport 54 percent of vehicle passengers, while cars take up 39 percent of the road space but transport less than 9 percent of passengers.²⁷ This situation doubles the transportation time for both car-driven elites and those using rickshaws. On average, out of every 2.35 hours spent commuting, 1.3 are due to traffic.²⁸ Moreover, the cost of traffic is enormous. One study reveals that there is a financial loss of \$3 billion every year due to traffic in Dhaka, including wasted time, environmental costs, and business losses.²⁹ Road accidents are also common, particularly between motorized vehicles and peddled rickshaws. Buses take up only 6 percent of road space but transport 28 percent of passengers, indicating that Dhaka requires a mass transit system.³⁰ But without delegitimizing “developmentality” or putting an end to elites’ passion for cars and stopping new ones from endlessly entering the roads, a mass transit system will only bring temporary relief.

Housing and Land

“Develop-mentality” has had an impact on the housing sector as well. Given the spectacular growth of Dhaka’s population, it is understandable that housing is a major issue. The number of houses required has increased; according to one calculation in 2002, at least 700,000 new houses were required, but only 300,000 were being built.³¹ With the rise of Dhaka’s population, the number of houses required has likely doubled since then.

Population pressure and the need for housing, coupled with newfound wealth, have swelled the price of land in Dhaka. For instance, in Gulshan,

23 Ibid.

24 Doug Saunders, *Arrival City: How the Largest Migration in History Is Reshaping Our World* (New York: Vintage Books, 2012), p. 302.

25 Debal Deb, *Beyond Developmentality: Constructing Inclusive Freedom and Sustainability* (London: Earthscan, 2009).

26 Cited in Filippo Sebastio, “Data-Jam: Could Data Reduce Road Congestion in Dhaka?” International Growth Centre, January 26, 2016, available at www.theigc.org/blog/data-jam-could-congestion-data-reduce-road-congestion-in-dhaka/.

27 For a closer exposition, see Debra Efrogmson and Mahabubul Bari, “Vehicle Mix and Road Space in Dhaka: The Current Situation and Future Scenarios,” Work for a Better Bangladesh Trust, 2005, available at www.academia.edu/1695979/Vehicle_Mix_and_Road_Space_in_Dhaka_The_Current_Situation_and_Future_Scenarios.

28 Khaled Mahmud et al., “Possible Causes & Solutions of Traffic Jam and Their Impact on the Economy of Dhaka City,” *Journal of Management and Sustainability* 2, no. 2 (2012), p. 117.

29 “Traffic Congestion Causes Tk 19,555cr Loss a Year: Study,” *Daily Star*, July 22, 2010.

30 Efrogmson and Bari, “Vehicle Mix and Road Space in Dhaka.”

31 Md. Shahidul Ameen, “Apartment Culture in Bangladesh: The Future,” *Daily Star*, February 8, 2002. See also Nizamuddin Ahmed, *Agenda for Urban Concern 2000–2005* (Dhaka: Bangladesh Scouts, 2012), p. 116.

the price of one *katha* (720 square feet) of land increased from 25,000 taka in 1974 to 1.2 million taka in 1998. The price for the same piece of land is now between 35 and 60 million taka (about \$430,000–\$750,000).³² Other areas of Dhaka are similarly expensive—in Motijheel, the price ranges from 30 to 50 million taka per *katha* (\$370,000–\$620,000), in Shahbagh from 30 to 35 million (\$370,000–\$440,000), in Maghbazar from 40 to 50 million (\$500,000–\$620,000), and in old Dhaka from 15 to 25 million (\$190,000–\$310,000)—although there are still areas with prices from 2.5 to 8 million taka per *katha* (\$31,000–\$100,000).³³

Despite the high price of land, the construction industry is booming, with housing expanding vertically. Although this indicates that Bangladesh is doing well economically, and certain sections of the population are benefitting from this economic growth, it also shows the desperation of the city's housing situation. In the midst of unplanned growth, natural calamities, violent politics, and corruption, this situation seems almost destined to have terrible consequences. The security of city dwellers is at stake.

(IN)SECURITY

Flooding and Earthquakes

Dhaka faces insecurity from both nature and humans, and at times a combination of both. Five high-magnitude earthquakes (greater than 7.0 on the Richter scale) affected Bangladesh between 1869 and 1930. Bangladesh is located close to the intersection of two subduction zones created by two active tectonic plates—the Indian plate and the Eurasian plate—and Dhaka is near the seismically active zone. A large earthquake of 7.0 on the Richter scale, according to one study, could destroy nearly 35 percent of Dhaka's buildings and kill approximately 25,000 people.³⁴ Faulty building structures resulting from lack of expertise, corrupt practices, and high population density make Dhaka

extremely vulnerable. In the aftermath of a large earthquake, secondary hazards such as fires from gas and electricity lines could bring even greater damage to the city.³⁵

Floods are also a source of insecurity for Dhaka. As a hydrological city, Dhaka naturally sees water flowing through it. This becomes a problem, however, when rivers are not dredged and barriers are constructed around the city so that no water can come in. This is precisely what was done in the aftermath of the great flood of 1950, following a request by the then government of Pakistan for international support. A commission headed by a member of the US Army Corps of Engineers recommended the construction of big water development projects, including the Dhaka-Narayanganj-Demra Project, to control the flood waters.³⁶ When Bangladesh was part of Pakistan (until 1971) these projects did not go very far, largely because of the unwillingness of the (West) Pakistani government to commit funds for the betterment of the people of East Pakistan, now Bangladesh.

The pre-1971 recommendations for controlling floods via embankments, however, got a boost from yet another big flood in 1987–1988. This time with the Bangladeshi government actively involved and the World Bank as the chief coordinator, international donors opted for the same embankment approach, albeit with the addition of guidelines for people's participation and recognition of the benefits of normal flooding. But a study carried out in 1988 found that the average material damage was worse inside the embankment. This is because drainage after the flood is much more rapid on the river side of the embankment than on the protected side.³⁷ Moreover, the condition of embanked areas worsens when a flood is caused by excessive rainwater, and Dhaka experiences cloud bursts that often run uninterrupted for two days.³⁸ Still, embankment construction is vigorously

32 Nizam Ahmed, "Land Prices Hit Zenith at Gulshan: Residential Areas Getting Commercial Character," *The Financial Express*, January 20, 2013.

33 Ibid.

34 Cited in Manik Kumar Saha, "Earthquake: Emerging Threat for Dhaka City," Bangladesh Institute of Planners, November 19, 2013, available at www.bip.org.bd/SharingFiles/201311191845041.pdf.

35 Ibid.

36 For a closer exposition, see Nazrul Islam, "Flood Control in Bangladesh: Which Way Now?" in *Living with Floods: An Exercise in Alternatives*, ed. Imtiaz Ahmed (Dhaka: University Press Limited, 1999).

37 See K. Stewart, "Post Flood: Assessment and Nutritional Status of Children in Matlab, Bangladesh," paper presented at Regional and Global Environmental Perspectives, Dhaka, March 4–6, 1989. Also cited in Peter Rogers, Peter Lydon, and David Seckler, *Eastern Waters Study: Strategies to Manage Flood and Drought in the Ganges-Brahmaputra Basin* (Washington, DC: Irrigation Support Network for Asia and the Near East, 1989), p. 52.

38 Ishrat Islam, "Deluge in Dhaka: Are the Hopes Being Flooded Away?" *Daily Star*, April 7, 2011.

pursued because, as Nazrul Islam put it, “There are powerful material *interests* at work. Big embankment projects...bring in large amount of foreign aid. [They] make some bureaucrats happy because they can preside over large spending programs. [They] make consultant, engineering, and construction companies happy because they can all get large contracts.”³⁹

Added to the ill-conceived policy of embankment is the issue of commercially-motivated encroachment into flood flow zones and river foreshores. In the 1990s, a Detailed Area Plan (DAP) for Dhaka was chalked out as part of a twenty-year Dhaka Metropolitan Development Plan (1995–2015). The DAP recommended the reclamation of more than 2,500 acres of flood flow zones and agricultural land from illegal housing scheme developers. But a recent report indicates that the realtors, with the complicity of government officials and political elites, have destroyed 80 percent of the capital’s conservable floodplains and water retention zones in the last five years.⁴⁰ Although twenty-one *khals*, or canals, of seventy-eight kilometers in length were to be cleaned and restored as part of the plan, 50 percent or more have already been encroached upon, and some have disappeared completely.⁴¹ The head of the DAP technical committee, Jamilur Reza Chowdhury, said that, “as a consequence, an unsustainable future is awaiting Dhaka with floods and pollution.”⁴²

Political Violence

There are also more direct human elements to Dhaka’s insecurity. One of these is polarized politics. Bangladesh had the misfortune of experiencing colonialism twice, first under the British (1757–1947), followed by the so-called “internal colonialism” under Pakistan (1947–1971). Political parties in Bangladesh resorted to violence and

became polarized during protracted campaigns to displace these colonial and semi-colonial regimes. Violence and polarization continued in the post-independence period, often due to struggles for democracy when the incumbent government turned non-democratic—tyrannical, military, or totalitarian.

Insecurity in Dhaka is further heightened by the prevalence of *hartals* (work stoppages, often enforced violently), most of which take place in Dhaka. Indeed, since the 1991 democratic transition, there have been an average of forty-six hartals per year—three times higher than during the earlier (semi-military) regime.⁴³ Loss from the *hartals* is substantial. The World Bank estimated that during the 1990s, \$50 million per day, or approximately 5 percent of GDP, was lost annually due to *hartals*.⁴⁴ The Bangladesh Garment Manufacturers and Exporters Association estimated that it lost \$20 million a day during *hartals*, while the Federation of Bangladesh Chambers of Commerce and Industry estimated in 2013 that each day of *hartals* cost the country \$1.3 billion.⁴⁵ Largely because of political violence and hartals, Bangladesh’s GDP growth rate in 2012 fell by between 0.2 and 0.9 percentage points,⁴⁶ putting further pressure on people’s economic security, including employment, salaries, and purchasing capacity.

No less critical is the issue of political killing, which also mostly takes place in Dhaka. Dhaka has been a political city ever since the first partition of Bengal in 1905. After Bangladesh’s independence, Dhaka took on new political dimensions. Bangladeshi politics have become so infected with polarization and intolerance that cadres and supporters of political parties, particularly the Awami League, Bangladesh Nationalist Party, and Jamat-e-Islami, regularly resort to violence and killing (see Table 1).

39 Nazrul Islam, “Flood Control in Bangladesh: Which Way Now?”

40 Tawfique Ali, “80pc Flood Flow Zones Filled Up,” *Daily Star*, March 12, 2014.

41 Ishrat Islam, “Deluge in Dhaka.”

42 Ali, “80pc Flood Flow Zones Filled Up.”

43 Ajoy Dasgupta, *Sangbadpatrey Hartalchitra* (Dhaka: Press Institute of Bangladesh, 2001). See also Imtiaz Ahmed, “State, Society & Democratic Futures: Challenges for Bangladesh,” paper presented at the World Conference on Building Democracy and Peace through Inclusive Growth and Development, New Delhi, India, February 24–26, 2011.

44 Cited in UN Development Programme, “Beyond Hartals: Towards Democratic Dialogue in Bangladesh,” 2005, p. 32.

45 “‘Hartal’ a Curse for the Economy,” *Bangladesh Textile Today* 6, no. 4 (April 2013), available at <http://www.textiletoday.com.bd/hartal-a-curse-for-the-economy/>.

46 Debapriya Bhattacharya, “Bangladesh 2013: Assessing Economic Implications for the Present Political Shocks,” presentation, Centre for Policy Dialogue, Dhaka, April 13, 2013, p. 14.

Table 1. Deaths from political violence in Bangladesh⁴⁷

| Year | 1997 | 1998 | 2000 | 2001 | 2002 | 2003 | 2005 | 2006 | 2009 | 2012 |
|-------|------|------|------|------|------|------|------|------|------|------|
| Total | 69 | 101 | 208 | 656 | 420 | 436 | 310 | 374 | 251 | 169 |

A breakdown of the incidents shows that the bulk of the casualties, with injuries running in the thousands, occurred in Dhaka. In 2012, for instance, forty-two of the fifty-two *hartals* called by opposition parties took place in Dhaka.⁴⁸ Many of those *hartals* were followed by violence and destruction of motor vehicles. Interestingly, during the two-year military-backed caretaker government (2007–2008), no political killing was reported, although there were cases of extrajudicial killing—184 in 2007 and 149 in 2008.⁴⁹ Extra-judicial killings have taken place even under democratic regimes—154 in 2009, 127 in 2010, 84 in 2011, and 70 in 2012—most resulting from police or military action and “crossfire” and taking place in the vicinity of the capital city.⁵⁰ As a “political city” Dhaka became not only a “city of martyrs” but also a “city of killed dissenters,” which contributed further to its trauma.

Dhaka, as a political city, could not avoid the politicization of religion, with Jamat-e-Islami and other outfits promoting the Wahhabization or Salafization of Islam. Dhaka found itself intimately connected to the Arab world through the propagation of religious discourse and the flow of petrodollars, including remittances, through both formal and informal channels. The growth of religio-patriarchal intolerance is alarming, with women often finding it difficult to move around freely, particularly when alone, without the hijab. There is also a noticeable increase in black hijabs, which reflects the importation of Saudi/Salafi/Wahhabi practices from the Arab world.⁵¹ Due to Bangladesh’s polarized politics, mainstream political parties have raced to win over religio-communal forces for reasons of electoral politics,

often reproducing rituals and discourses found in the Arab world but external to the Sufi and Hanafi traditions prevalent in South Asia. Unless contained—intellectually as well as institutionally—this is bound to lead to greater contestation, even violence, in the future.

Polarized politics also reproduce the power of the *mastans*. Motiar Rahman, a police officer, describes the *mastans* as:

thugs committing a wide range of crimes such as taking meals in restaurants without payment, forcible extraction of tolls and subscriptions, particularly from house owner[s], tenant[s], shop owners, businessmen, contractors etc., bus stands, real estate companies, owners of industries and clinics etc. Mastan[s] [also give] mercenary service[s] such as kidnapping for ransom, grabbing of property, murder, dacoity [banditry], etc., in exchange [for] cash or kind from anybody. Some of them have made [a] fortune by grabbing real estate property, shops, buses and trucks.... [They] extort huge amount[s] of money from businessmen, contractors and others [and] no one dare[s] to oppose [them] or to lodge complaint[s] with the law enforcement authorit[ies] for fear of retaliation.⁵²

The power of *mastans*, or the “mastanocracy,” mainly comes from their impunity.⁵³ Due to lack of democracy within political parties, politicians make constant use of the *mastans* to enforce conformity or obedience within parties, helping them contain those trying to challenge their leadership. Some politicians also use them to raise funds. With little or no interparty democracy, the *mastans* often play a role in containing the power of rival parties. The *mastans* reap the benefits when the leader or the party of their choice comes to power. Parties not only overlook their unlawful activities

47 For a closer exposition, see Imtiaz Ahmed, “State, Society & Democratic Futures.” See also Odhikar, “Human Rights Report 2012,” 2013, p. 40.

48 Odhikar, “Human Rights Report 2012,” 2013.

49 Odhikar, “Human Rights Concerns 2007,” 2008, p. 17; Odhikar, “Human Rights Report 2008,” 2009, p. 24.

50 Odhikar, “Human Rights Report 2012,” p. 47.

51 In the Saudi/Wahhabi tradition, women can wear only the “black veil.” In other *mazhabs* (schools of thought), particularly Hanafi, which is the predominant *mazhab* in South Asia, including Bangladesh, all colors are acceptable.

52 Md. Motiar Rahman, “Urbanization and Urban Crime in Bangladesh,” n.d., available at www.police.gov.bd/userfiles/file/UrbanizationAndUrbaCrimeInBangladesh.pdf.

53 Imtiaz Ahmed, “Violence, Mastanocracy and Chronic Poverty,” in *Chronic Poverty in Bangladesh: Tales of Ascent, Descent, Marginality and Persistence*, ed. Binayak Sen and David Hulme (Dhaka: Bangladesh Institute of Development Studies and University of Manchester Chronic Poverty Research Centre, 2004).

but also protect them from the hands of law enforcement authorities. This creates space for criminal activities, and Dhaka, as a “political city,” suffers the most. One figure indicates that among the six metropolitan cities of Bangladesh, Dhaka had 70.48 percent of the total crimes committed between 2008 and 2012,⁵⁴ including banditry, robbery, smuggling, narcotics, explosives, kidnapping, violence against women, and murder.⁵⁵

(MIS)GOVERNANCE

The Political-Business-Bureaucratic Nexus

In Bangladesh, “misgovernance” is good for politics and business. Good governance in politics would imply the institutionalization of democracy and some level of professionalism in political parties, with leadership emerging from the rank and file through an established process of regular elections. In Bangladesh, however, all major political parties, as indicated earlier, suffer from a want of democracy both within and without. Parties are run on the basis of authoritarian leadership and “familiocracy” (the predominance of family members). Both authoritarianism and “familiocracy” end up reproducing patrimonialism, sycophancy, and “mastanocracy.” The only way a person can get a position in a party or a nomination to stand in elections is through unflinching support from the party leader. Leaders are often mythicized, if not deified, with *mastans*, often in the guise of sycophants, playing a prominent role. Structures of misgovernance are so entrenched that political or party reforms to ensure good governance would reduce the power of those holding it and their beneficiaries. In a situation like this, misgovernance becomes the norm.

Poor governance also affects business. Good governance in the business sector would mean transparency not only in getting contracts and business deals from government agencies but also in disclosing income, submitting wealth statements, and paying taxes owed to the state. This would prevent businesspeople from getting contracts through unfair means and amassing wealth illegally. It is no surprise, therefore, that a

sizeable number of businesspeople join politics, because having a place in the ruling party or government helps their businesses. In the ninth parliament (2008–2014), the majority of parliamentarians had business links: 52 percent were self-declared businesspeople, and approximately 30 percent owned garment factories.⁵⁶ Of the Awami League’s 235 members of parliament, 120 were self-declared businesspeople, while of the Bangladesh Nationalist Party’s 30 members of parliament, 18 were self-declared businesspeople.⁵⁷ The figure is probably the same in the tenth parliament, despite the Bangladesh Nationalist Party’s absence due to its boycott of the January 2014 national election.

Fragmented Governance

This political-business-bureaucratic nexus is in charge of Dhaka. More than a dozen agencies service the city, and the jurisdictions of these agencies conflict with one another to the point of doing more disservice than service. However muddled this may sound, it is the main factor helping the nexus remain active and relevant. The many service providers in Dhaka include the Dhaka City Corporation, Capital Development Authority of Bangladesh (Rajdhani Unnayan Kartripakhya), Dhaka Water and Sewerage Authority, Dhaka Electric Supply Authority, Titas Gas, Housing and Settlement Directorate, Roads and Highways Department, Bangladesh Telephone and Telegraph Board, Department of Health, Department of Fisheries, and many more. But, as Mohammad Hanif described in narrating his experience as mayor of Dhaka, the various government agencies create problems in improving service delivery:

I was elected Mayor in January 1994. In 1995, Dhanmondi Walkers Club invited me one morning for tea. They fed me well and informed me about the problems of the Dhanmondi area.... They said that right now the biggest problem was the rehabilitation of Dhanmondi Lake. Was it a lake, a pond, a ditch or a slum, it was not clear. They said, please fix our lake. I said, Insha’Allah, I will work on it from tomorrow.

I began work. I sent my team of engineers to Dhanmondi Lake and they were obstructed. They were asked why they had come. They said that they

54 Md. Motiar Rahman, “Urbanization and Urban Crime in Bangladesh.”

55 For a yearly breakdown, see Bangladesh Police, Crime Statistics, available at www.police.gov.bd/Crime-Statistics-yearly.php?id=317.

56 Imtiaz Ahmed, “Bangladesh: Evolving Political Situation,” p. 3.

57 Ibid.

had been sent by the Mayor for the beautification of the lake so that the people of the area could walk by the lake to have some respite in the morning and evenings. They were told to go back. Why? Because the water[s] of the lake were of the Ministry of Fisheries. The banks of the lake were of the Ministry of Works. They said that unless they were given permission, they couldn't start work there.⁵⁸

Despite this severe lack of coordination, there is no urgency to reform the agencies and improve coordination among them. This could indicate inertia on the part of the officials of the various agencies. But the problem seems deeper—one that is related to power and the material interests of the service providers. Improved coordination or governance would dilute their power and take away sources of unlawful income. The greater the difficulty in obtaining the service, the greater the eagerness of consumers to seek other, presumably unlawful, means of getting the service delivered. These could include making use of all kinds of networks—family, village, community, and political party—as well as getting help from the *mastans* and contributing a hefty amount to the political-business-bureaucratic nexus. By encouraging corruption, misgovernance ends up benefiting the nexus.

Rahmatullah, former chairman of the Capital Development Authority of Bangladesh, the government agency responsible for coordinating urban development, identified one possible way out of this situation: “If Dhaka is to be improved there has to be coordination between all the service providing agencies. It should be under one man's control. He should be independent and responsible for the job. There should be no interference from outside.”⁵⁹

Instead, the government opted for a “two-man control” solution in 2011, when Dhaka city was divided into the Dhaka North City Corporation and the Dhaka South City Corporation. The division, however, had more to do with partisan

politics than providing better service to the residents. Dhaka city has been run by an elected mayor since 1994, but no elections have been held since 2007, mainly because the incumbent Awami League regime is not confident it could win. One way out was to divide the city in two and win at least one of the mayoral elections. But the elections in both north and south Dhaka were postponed following a stay order from the High Court in April 2012.⁶⁰ Mayoral elections in Dhaka became even less likely when the Awami League lost mayoral elections in five cities, including Gazipur, where it had a support base for many years, in June and July 2013. If anything, the division of Dhaka created more mess and ended up empowering the nexus. Government bureaucrats now run the two newly created mayoral offices, and mismanagement arising from the sudden division of the city has made service delivery even more cumbersome, with consumers having no option but to seek the support of the nexus.

Shrinking Democratic Space

Misgovernance in Dhaka is a reflection of misgovernance in national politics, which was further demonstrated during the national election on January 5, 2014. The opposition parties boycotted the election, and more than 52 percent of the members of the ruling Awami League party were elected to parliament uncontested, without a single vote being cast. Save India, none of the established democracies welcomed the election or congratulated the Awami League regime. This is hardly good news for Dhaka. Many fear it will not take long for the city to return to the political chaos of pre-election days. Dhaka, as a political city, will once again face demonstrations, *hartals*, and violent policing of dissenters. The military's support of the incumbent regime and limits of “familiocracy” in Bangladeshi politics,⁶¹ particularly in the opposition ranks, may make some difference, but how long these will be able to prop up a regime that lacks broad credibility, both

58 Cited in Nizamuddin Ahmed, *Agenda for Urban Concern 2000–2005*, p. 15.

59 Ibid., p. 13.

60 Enayetullah Khan, “From the Editor: Let Us Not Postpone Democracy,” *Dhaka Courier*, April 19, 2012.

61 “Familiocracy” incidentally gets reproduced in Bangladesh mainly because of what could be referred to as the “politics of empathy or sympathy” and cannot be extended to a second generation of family members unless they, too, suffer from tragic events. It may be pointed out that none of the great political leaders of Bangladesh, including Sheikh Mujibur Rahman, Maulana Bhashani, A. K. Fazlul Huq, Huseyn Shaheed Suhrawardy, or even Ziaur Rahman, came from political families. In fact, none of their parents were ever directly involved in politics. The sooner the major political parties, particularly the Bangladesh National Party and Awami League, recognize this, the sooner they will be able to reform and democratize and overcome the power of the nexus while attracting more noncommittal yet critical voters.

nationally and internationally, remains an open question.

In the process, Dhaka is bound to suffer the most. The democratic space of the city was squeezed following the military takeover of the country in 1975, notably under General Ziaur Rahman, who is said to have remarked that “I will make politics difficult for the politicians” and went on to change the Paltan Maidan, a large open space in the city, into a hockey stadium. Successive regimes, whether elected or not, continued squeezing the democratic space of the city. With little or no open space in Dhaka where dissenters can voice their grievances and agitate, the streets will again become the center of political rallies and protests.

Due to these factors—maldevelopment, insecurity, and misgovernance—Dhaka is highly stressed. Not surprisingly, it has earned the notorious distinction of being called “the worst city in the world to live in.”⁶²

Lessons for Resilience

Despite these manifold stresses, Dhaka is a city that never sleeps. With a majority-Muslim population and more than 700 mosques, the place of the “hidden goddess” has earned a new name—“the city of mosques.” Layers of spirituality help the city remain awake from the first light in the east when the *azan* (call for prayers) is aired over the loudspeakers in hundreds of mosques throughout the city. Five times a day when the *azan* is aired, hundreds of people congregate in the mosques, socializing and discussing things from the mundane to the serious.

The city is also alive with the hundreds of thousands of female workers employed in thousands of factories in and around the city. In the morning and evening, these workers walk to and return from the factories, often in groups, forcing mechanized vehicles to drive by slowly and, with women dominating the walkways, making the streets more secure. Although the growth of the garment industry has had negative consequences as

well, Dhaka’s residents have tended to join hands and face these consequences collectively. This is precisely what happened when the Rana Plaza, a garment factory in the periphery of Dhaka, collapsed on April 24, 2013, due to unlawfully built structures, killing 1,129 people. Hundreds of fellow workers and volunteers came forward to rescue the victims, reaching the scene long before the government machinery, including the military, was put into operation. This is just one of the many crises Dhaka’s sense of collective resilience has helped it bounce back from over the years.

The economic dividends from such collective resilience are no less striking. In November 2012, for instance, a fire in one garment factory killed 190 workers, heavily tarnishing the reputation of the apparel sector, yet apparel exports rose more than 20 percent compared with the year before.⁶³ Similarly, despite the Rana Plaza tragedy, woven garment exports went up by 17.32 percent from July 2013 to January 2014, while knitwear garment exports rose by 18.13 percent compared to the previous fiscal period.⁶⁴ There are critics who see such growth in exports of ready-made garments as the result of Bangladeshi capacity to provide cheap labor, as Mohammad Faras Uddin, the former Bangladesh Bank governor, remarked: “Our export[s] will go up regardless of all problems because no countries in the world can export garments so cheaply.”⁶⁵ Still, this argument should not miss the tenacity of the workers.

Modern technology, too, has mobilized and socialized Dhaka and kept the city alive. Anyone who knows a Bengali knows it is *adda*—informal conversation among a group of people—that keeps a Bengali going. *Adda* can relieve stress and foster a more open society. As a group of researchers studying Dhaka said:

Dhaka city, despite its growing stratification, still offers some kind of an open society, where, beyond a level, which is not very high, everyone either knows or knows of everyone else through birth, marriage, association and evening *adda*.... Consequently, it is said that nothing can be kept secret in Dhaka city for

62 This is according to the Economist Intelligence Unit’s Global Livability Survey 2014, which looks at how “tolerable” it is to live in a particular place given its crime levels, threat of conflict, quality of medical care, level of censorship, temperature, schools, and transportation links. Cited in “The World’s 10 Worst Cities to Live in,” *The Telegraph*, March 22, 2014, available at www.telegraph.co.uk/property/propertypicturegalleries/9478023/The-worlds-10-worst-cities-to-live-in.html.

63 Imtiaz Ahmed, “Bangladesh: Evolving Political Situation.”

64 Abdur Rahim Harmachi, “Export Up Despite Turmoil,” *bdnews24.com*, February 17, 2014.

65 Ibid.

long. Rumours spread quickly, and often many rumours turn out to be true.⁶⁶

Adda has taken on new forms with new technologies. More than a dozen television channels in Dhaka have come to help Bengalis see, listen, and even contribute to *addas* through talk shows that start running throughout the evening and end past midnight.

Life in Dhaka continued even during the big floods, such as the flood of 1998. The city was completely submerged under the water, yet people continued trading, traveling, profiting, and innovating without giving up on life. Syed Imtiaz Ahmed, a professor and researcher, describes this well:

The devastating flood of 1998 shattered the [lives] of millions throughout the country. Living has been particularly difficult for the city-dwellers in Dhaka, as the entire infrastructure of this “modern” city is not equipped to face such a huge surge of water.... But life did not stop. People devised their own methods, tactics and measures to cope with this extreme situation. People were seen working round the clock to protect the [Dhaka-Narayanganj-Demra] embankment.... Hundreds of boats plying over, what once were metalled roads, became a common scene.... The flood has also turned boat manufacturing into a profitable sector.... The submersion of regular market places did not stop buying and selling in flood affected areas. Many shopkeepers have rearranged their shops on platforms high above the water level.... To paddle through the floodwater safely, a new style of trouser became popular. It has chains along the knee-side and it can be pulled up over the knee. This saves the trouser from getting wet.... The city lacks proper flood protection mechanisms. Yet, the people have demonstrated tremendous resilience in facing such disasters and in their own innovative ways have kept the life in the city going.⁶⁷

Maybe time has come for the city to return to its roots—to being a hydrological city. This could provide a basis for addressing the city’s many stresses. The reconstruction of Hatir Jheel (Elephant’s Pool), an area consisting of 302 acres of wetlands where elephants used to come and bathe, supports this idea. The area, located at the heart of

Dhaka city, was lost to land grabbers due to misgovernance but then was reconstructed during the military-backed caretaker government of 2007–2008. Now people from all over Bangladesh come to visit, indicating that political will and the right kind of policies can bring drastic changes to make the city a better place.

Strength and resilience in Dhaka city can come from four interrelated drivers:

1. Political drive

The time has come for the city to have its own legislative body and greater autonomy. At the same time, the city must be made free of “uncivil” elements, such as the *mastans*, and be run by professionals. Only good governance can ensure security, and with security the city can attract investment, which is critical to building new infrastructure, including a mass transit system.

2. Economic drive

The city must be able to raise its own funds, internally as well externally, and not be at the mercy of partisan politics and government prejudices. Financial autonomy can raise the status of the city, and this could help it transform into a global city.

3. Health drive

The health of Dhaka’s residents is intrinsically connected to the health of Dhaka city. There must be additional drive to address issues related to public health and urban health, including a better drainage system, greater access to drinking water in public spaces, and useable public toilets.

4. Aesthetic drive

A resilient city requires an aesthetic mind. The “aestheticization” of the city will take time, but a beginning has to be made, or newer investments and structures will only make the city worse. Aesthetic improvements could include recovering wetlands and adding green spaces and gardens to the city.

⁶⁶ Siddiqui et al., *Social Formation in Dhaka City*, p. 19.

⁶⁷ Syed Imtiaz Ahmed, “The Dhakaites: Battling the Deluge,” in *Living with Floods: An Exercise in Alternatives*, ed. Imtiaz Ahmed (Dhaka: University Press Limited, 1999), pp. 25–28.

Mumbai: The City that Never Sleeps

*Chandrani Sarma and Amitendu Palit**

Introduction

Mumbai is one of the biggest manifestations of urban fragility in the modern world. Its various fragilities are compounded by characteristics stemming from its geography and history. Covering an area of 480.24 square kilometers and built out of seven islands merged into one, Mumbai is the largest and second most populous city in India and the sixth most populous in the world.¹ It is estimated that by 2020, Mumbai's population will swell to 28 million people, making it the world's largest city.²

Since it was the flourishing commercial capital of an undivided India during the colonial era, Mumbai has captured the attention of businesses and attracted migrants. Its significance in Indian history can be gauged from the fact that India's first rail link was built between Mumbai and Thane, a suburb, in 1853. The first port in the Indian subcontinent, built under British rule, was also in Mumbai. It was in Mumbai that the Indian National Congress was born in 1885. Today, around 40 percent of Indian corporations have their head offices registered in Mumbai.³ The city also has charm and glamor due to the presence of Bollywood, the heart of India's entertainment industry. This history paved the way to what Mumbai is today: a place of rich heritage, a diverse population, and "unlimited opportunities." Mumbai is the "city that never sleeps."

Sources of Stress and Fragility

In the past, several metropolitan cities have succeeded in overcoming fragility. New York and London had colossal slums in the nineteenth and

twentieth centuries, and in the 1960s Singapore suffered from riots among different racial groups and extreme housing shortages, forcing many to live in squatter camps. However, these cities undertook local-level government measures that significantly reduced their fragility.

Urban fragility results from an intricate mix of factors connected to city governance, development, and security, which manifest themselves with characteristics distinct to each city. Mumbai is no exception. It faces complex challenges that need to be addressed holistically.

GOVERNANCE

Local government in the state of Maharashtra follows the same general structure as the rest of the country. Large urban areas in India are governed by municipal corporations, and there are twenty-six such corporations in Maharashtra. Greater Mumbai is governed by the Municipal Corporation of Greater Mumbai, also known as the Brihanmumbai Municipal Corporation (BMC), headed by a municipal commissioner, usually an officer of the Indian Administrative Service. The mayor is the chief of the BMC and from the majority party (the party that wins the most seats in the state legislative assembly elects the mayor through an internal vote). Most real power lies with the municipal commissioner, while the mayor plays a more ceremonial role. For administrative purposes, Greater Mumbai is divided into seven zones, each consisting of three to five alphabetically-named wards, for a total of twenty-four wards (see Table 3 in the Appendix).

The BMC's areas of governance include water, public health, and the environment. It also looks after improvement and upgrading of slums, welfare of "backward classes," and creation of recreational facilities. The BMC has 227 elected councilors, 30

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1 UN Department of Economic and Social Affairs, "World Urbanization Prospects," 2014, available at <http://esa.un.org/unpd/wup/highlights/wup2014-highlights.pdf>.

2 "Facts on Mumbai," National Geographic Channel, March 26, 2011, available at www.natgeotv.com.au/people/facts-on-mumbai.aspx.

3 Dezan Shira and Associates, "New Delhi and Mumbai Comparison," India Briefing, October 29, 2013, available at www.india-briefing.com/news/delhi-mumbai-comparison-7076.html/.

percent of whom are women. Its main sources of revenue are octroi⁴ (60 percent) and property taxes (19 percent). Revenue expenditure is largely on salaries and pensions, operations and maintenance, and debt servicing, while capital expenditure is on water supply, roads and bridges, and sewage.⁵

Overlapping Jurisdictions

The division of responsibilities in the city is a major source of inefficiency in governance and development. The BMC's mandate runs parallel to the mandates of some other Maharashtra State agencies. For example, in addition to the BMC, several other agencies have overlapping jurisdiction over the city's infrastructure: the Mumbai Metropolitan Region Development Authority (MMRDA) plans and coordinates various development activities, the Mumbai Housing and Area Development Authority is in charge of urban housing, and the Slum Rehabilitation Authority is in charge of the slums.

The MMRDA and BMC have had many conflicts with each other while leaving issues such as garbage and potholes unaddressed. The MMRDA, as an agency of the government of Maharashtra, is not directly accountable to Mumbai residents and thus enjoys political immunity. As a result, it is high-handed in dealing with the BMC, and rivalry between the different political parties controlling the two institutions worsens the conflict. For instance, in the past, the MMRDA has asked the BMC to pay for land acquisition and resettlement of people affected by a World Bank-funded project it was implementing, abruptly transferred infrastructure projects it had undertaken to the BMC for completion, and not paid property taxes it owed to the BMC.⁶

Corruption

The Anti-Corruption Bureau of Maharashtra State has reported more successful sting operations against officials demanding bribes in Mumbai than in any other city in the state, indicating the high level of corruption in the city. About 80 percent of

the corruption is said to be in lower-ranking public offices.⁷ However, high-rank corruption occasionally comes to the fore. For example, in the Adarsh Housing Society, which was built on high-value land in south Mumbai, supposedly for families of soldiers who lost their lives in the Kargil War, it was later found that most houses were owned by relatives of prominent politicians and bureaucrats.

SECURITY

Insecurity, in the form of crime, communal violence, and terrorism, has long been a part of Mumbai's history. Today, Mumbai's residents live in relative harmony, but there is underlying distrust among people of various religions, creating a potential for communal violence. In addition, being surrounded by sea on three sides makes Mumbai's borders highly porous. This, along with a history of organized crime and crime syndicates, has made Mumbai a soft target for terrorism.

Crime and the Underworld

Most crimes in Mumbai fall under the Narcotic Drugs and Psychotropic Substances Act, Immoral Traffic Prevention Act, and Essential Commodities Act, pointing to the prevalence of drugs, prostitution, and trafficking in the city. The importance of Mumbai as a port city, its strong connections with Middle Eastern countries, its success in luring migrants, and the ease of traveling into and out of the city facilitate drug and human trafficking. These activities are mainly carried out by the "underworld," or Mumbai mafia.

Mumbai's underworld began in gambling and liquor dens and, over time, took to gold smuggling, drug dealing, kidnapping, extortion, prostitution, contract killing, and human trafficking. Mumbai's booming real estate and lucrative business transactions have also involved the underworld. The underworld has never been short of willing participants, with migrants flocking to the lure of quick money. Many migrants who enter the city looking for a job but failing to attain one end up pursuing crime or other antisocial activities. Underworld

4 Octroi is a type of entry tax levied by the BMC on all goods and commodities imported into its territorial jurisdiction.

5 Brihanmumbai Municipal Corporation, "Mumbai City Development Plan 2005–2025," available at [www.mcgm.gov.in/irj/go/km/docs/documents/MCGM%20Department%20List/City%20Engineer/Deputy%20City%20Engineer%20\(Planning%20and%20Design\)/City%20Development%20Plan/Financial%20profile.pdf](http://www.mcgm.gov.in/irj/go/km/docs/documents/MCGM%20Department%20List/City%20Engineer/Deputy%20City%20Engineer%20(Planning%20and%20Design)/City%20Development%20Plan/Financial%20profile.pdf).

6 Abhay Pethe, Vaidehi Tandel, and Sahil Gandhi, "Understanding Issues Related to Polycentric Governance in the Mumbai Metropolitan Region," *Public Finance and Management* 12, no. 3 (2012).

7 Nitin Yeshwantrao, "Mumbai Tops Maha Corruption Chart," *Times of India*, August 30, 2011, available at <http://timesofindia.indiatimes.com/city/mumbai/Mumbai-tops-Maha-corruption-chart/articleshow/9792435.cms>.

activities have led to a number of casualties, and even Bollywood has not been able to escape brushes with the organized crime syndicates.

Mumbai is a hub of drug smuggling due to its geographical location in India and easy port access. India is located between three of the largest opium and heroin producers in the world—Pakistan, Afghanistan, and Myanmar—whose drug trade is estimated to be worth \$200 billion. Due to its strategic location, Mumbai is a major transit point for illicit trade between the Golden Triangle and the Golden Crescent.⁸ It is also a hub for diamond smuggling (via South Africa), and diamonds are sometimes used to disguise shipments of heroin. The relationship between insurgent groups, arms dealers, and narco-terrorists who deal in these trades has acquired ominous proportions, with Mumbai at its center.⁹

Another important source of profit for Mumbai's criminal underworld is prostitution, which has given the city the notorious record of being home to the largest brothel area in the world (in terms of number of sex workers), infamously known as "The Cages." Most of the prostitutes are trafficked with false promises of a job or marriage, sold to pimps, and policed by criminal gangs. Young girls are reportedly lured from different parts of the country and forced into prostitution.¹⁰ There is a well-organized system for transporting girls abducted from elsewhere in the country to the brothels in Mumbai and then eventually to the Gulf countries.

In almost all instances where organized crime syndicates manage prostitution, the flesh trade survives with covert but active support from sections of the administrative and political establishments. Lately, however, sharp vigil seems to be producing dividends, and Mumbai might be losing significance as an easy route for trafficking to the Middle East. Mumbai's anti-trafficking court was recently lauded by US officials for ordering the

closure of eleven brothels and convicting eighty-one traffickers.¹¹ The transfer of many trafficking cases in Mumbai to a single court helped the government identify trafficking patterns and serial offenders and respond effectively.

The murder rate is relatively low in Mumbai compared to other state capitals in India. Some crimes against women common elsewhere in India, such as dowry deaths and kidnapping, are also relatively low in the city. However, rape and crimes related to human trafficking are among the highest in India (see Table 4 in the Appendix). Mumbai also ranks worst in terms of stolen property, which police have a poor record in recovering.¹²

According to the National Crime Records Bureau, Maharashtra State has more police per capita than any other state, including the national capital (an average of 162 police per 100,000 people). However, the annual cost per policeman is the third lowest, reflecting the state's lower expenditure on maintenance of police. Because the Mumbai police are part of the Maharashtra State police, the city cannot escape the inefficiencies that arise from this lower expenditure.

Terrorism

Mumbai has been the target of a large number of major terrorist attacks, beginning with the 1993 serial bomb blasts linked to the underworld. High population density and porous borders make Mumbai a soft target for terrorist attacks. Attacks usually target busy marketplaces, crowded local trains, packed cafés, public thoroughfares, and prominent hotels, where panic-driven stampedes multiply casualties from explosives and bullets (see Table 1).

Communal Violence and Discriminatory Politics

Mumbai has also suffered from communal violence.¹³ The 1992–1993 riots that followed the

8 The Golden Triangle refers to a roughly triangular zone in the highlands of Southeast Asia that overlaps Burma, Thailand, and Laos. The Golden Crescent consists of Afghanistan, Pakistan, and Iran.

9 Aparajita Biswas, "Small Arms and Drug Trafficking in the Indian Ocean Region," University of Mumbai, 2014, available at http://archive.mu.ac.in/arts/social_science/african_studies/biswaswp.pdf.

10 Rebecca Everly, "Preventing and Combating the Trafficking of Girls in India Using Legal Empowerment Strategies," International Development Law Organization, 2011.

11 "Anti-Trafficking Court Lauded," *Free Press Journal*, September 7, 2011, available at www.freepressjournal.in/anti-trafficking-court-lauded.

12 National Crime Records Bureau, 2012.

13 Hindus are the majority in the city, constituting 67 percent of the population. The Muslim population is also sizeable, accounting for 18.5 percent. There are smaller populations of Buddhists (5.2 percent), Jains (4 percent), Christians (4.2 percent), and Sikhs (0.6 percent), with Parsis and Jews making up the rest. In terms of ethnicity, 42 percent are Maharashtrian (natives of the state of Maharashtra, of which Mumbai is the capital), 19 percent are Gujarati, and the rest are from all over the country.

Table 1. Major terrorist attacks in Mumbai¹⁴

| Date | Description | Killed | Injured |
|-------------------|---|--------|---------|
| March 12, 1993 | Thirteen blasts went off across the city, including a vehicle bomb targeting the Bombay Stock Exchange building. These coordinated attacks were the most destructive bomb explosions in Indian history and marked the beginning of a series of terrorist attacks in the city. The alleged mastermind was Dawood Ibrahim, who was financially assisted by Pakistani and expatriate Indian smugglers. | 257 | 713 |
| August 25, 2003 | Twin bombs placed in taxis went off during lunchtime at Gateway of India and Zaveri Bazaar. The force of the explosion is reported to have thrown several people into the sea. It was considered retaliation to the 2002 violence in Gujarat state, where 790 Muslims were killed. Lashkar-e-Taiba is blamed for the attack. | 52 | 160 |
| July 11, 2006 | Seven pressure cooker bombs went off in different local trains during evening rush hour. This was similar to both the 2004 Madrid and 2005 London train bombings, which were also directed against rush-hour commuters on mass transit systems. | 181 | 890 |
| November 26, 2008 | Twelve coordinated shooting and bomb attacks lasted four days in multiple prominent locations, including the Taj Mahal Hotel, Leopold Café, Shivaji Terminus, and Cama Hospital. The attackers came into Mumbai via the sea route from Pakistan. | 166 | 300 |
| July 13, 2011 | Three bomb blasts targeted the Opera House, Zaveri Bazaar, and Dadar West. | 26 | 131 |

demolition of the Babri Masjid in the north Indian state of Uttar Pradesh on December 6, 1992, were probably the worst in Mumbai and post-independence India. According to official estimates, these riots claimed about 900 lives and destroyed a billion rupees worth of public and private property. Hundreds were reported missing and presumed dead, with mainly Muslims targeted throughout the city, including in core urban areas. These riots were closely followed by the 1993 blasts that were the first home-bred terror attack perpetrated by the underworld.

The riots left deep scars on the psyche and character of the city, with the biggest injury inflicted on Mumbai's cosmopolitan and secular credentials. The riots also left their mark on the spatial concentrations of ethnic and religious groups in the city and the attitude of communities toward political parties. One of the gradual but inescapable outcomes of the riots has been

“ghettoization,” with Muslims moving out of localities where they were minorities and clustering in specific areas, like central Mumbai. Though such riots have not taken place since, the deep-rooted feeling of religious insecurity produced by the incidents continues to linger.

Communal tensions in the city have been aggravated by local politics, which acquired a distinctly religious character with divisive undertones following the 1992–1993 riots. The Hindu nationalist regional party Shiv Sena swept to prominence on an unabashed communal agenda. Years later, the Maharashtra Navnirman Sena (MNS), which broke away from Shiv Sena following internal splits, picked up anti-migrant propaganda as its main political weapon. A hate campaign swept the city in 2008 when MNS, headed by Raj Thackeray, attacked north Indians and their property in numerous incidents. The tendency has been to blame all the city's ills, partic-

14 South Asian Terrorism Portal, “Terrorist Attacks in Mumbai since 1993,” available at www.satp.org/satporgtp/countries/india/database/mumbai_blast.htm.

ularly deteriorating law and order, on unchecked migration from the poorer states of Bihar and Uttar Pradesh. On October 19, 2008, MNS activists beat up north Indians appearing for the all-India Railway Recruitment Board entrance exam in Mumbai, insisting that local Maharashtrians should be given priority. On October 28, 2008, a laborer from Uttar Pradesh was lynched in a Mumbai commuter train. These incidents led to a panicked exodus of workers from the city, resulting in acute labor shortages and curtailment of economic activity, with financial losses estimated at 5–7 billion rupees (\$80–112 million).¹⁵

DEVELOPMENT

Mumbai is fairly socioeconomically robust, with a large economy, high per capita income, and child sex ratios and literacy rates higher than the national average, even in the slums. Mumbai is responsible for 25 percent of India's industrial output, 70 percent of its maritime trade, and 70 percent of its capital transactions.¹⁶ Mumbai also hosts some of the country's key financial institutions, like the National Stock Exchange, Reserve Bank of India, and Bombay Stock Exchange.

While contributing to the economic growth of the city, these factors have also contributed to

socioeconomic disparities. Mumbai's economic lure fuels migration from all over the country, particularly India's hinterland and the relatively undeveloped states of northern India, as well as the neighboring states of Gujarat and Tamil Nadu. Migrants made up 43.7 percent of Mumbai's population in 2001 (the most recent credible figure), with the bulk engaged in low-skill and informal-sector jobs.¹⁷ Greater numbers of low-earning migrants contribute to low human development and put pressure on civic facilities in some parts of the city, particularly in the east, while southern Mumbai houses the city's more affluent and well-entrenched households (see Table 2).

Secondary Education

The 2011 census found Mumbai to have a literacy rate of 89.1 percent, higher than the national average of 86.7 percent. It also has the most literate slum population in the country (69 percent of slum dwellers are literate).¹⁸ The ratio of total population to municipal schools is fairly uniform among the wards (see Table 5 in the Appendix). However, out of the 1,162 municipal schools, 248 are lower primary schools (up to Standard IV), 914 are upper primary schools (Standards IV–VII), and only 49 are secondary schools (Standards VIII–X).¹⁹

Table 2. Human development indicators by ward²⁰

| Ward | Infant mortality rate (2006) | Average age of death (2004–2006) | Human Development Index (HDI) | Rank |
|------|------------------------------|----------------------------------|-------------------------------|------|
| D | 9.42 | 60.73 | 0.96 | 1 |
| C | 35.88 | 60.49 | 0.89 | 2 |
| R/C | 16.35 | 58.58 | 0.84 | 3 |
| B | 31.56 | 53.81 | 0.71 | 5 |
| F/N | 50.27 | 47.52 | 0.41 | 21 |
| M/W | 57.93 | 51.47 | 0.33 | 22 |
| L | 54.56 | 45.88 | 0.29 | 23 |
| M/E | 66.47 | 39.30 | 0.05 | 24 |

15 "MNS Violence: North Indians Flee Nashik, Industries Hit," Rediff India Abroad, February 13, 2008, available at <http://web.archive.org/web/20080420154507/http://www.rediff.com/news/2008/feb/13nasik1.htm>.

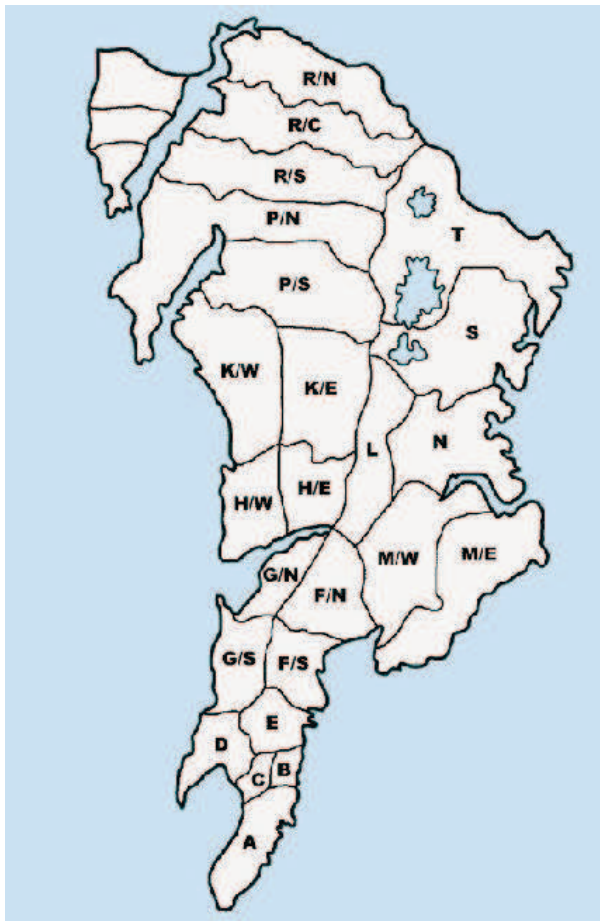
16 Indian Institute of Technology Bombay, Industrial Research and Consultancy Centre, "Mumbai," available at www.ircc.iitb.ac.in/IRCC-Webpage/mumbai.html.

17 Brihanmumbai Municipal Corporation, *Mumbai Human Development Report* (New Delhi: Oxford University Press, 2010).

18 Office of the Registrar General and Census Commissioner, Census of India, 2011, available at www.censusindia.gov.in/2011census/population_enumeration.html.

19 Brihanmumbai Municipal Corporation, *Mumbai Human Development Report*, 2009.

20 Brihanmumbai Municipal Corporation, *Mumbai Human Development Report* (New Delhi: Oxford University Press, 2010).

Figure 1. Wards of Mumbai²¹

Since there are not enough secondary schools to absorb those who graduate from primary schools, there is a huge supply-and-demand problem, blocking students' progress to higher education. Many students have two choices: seeking admission to a private school, which might not be affordable, particularly for the slum population, or dropping out. As a result, many girls drop out after primary school, and many male dropouts get involved in antisocial activities.

Moreover, despite a high official literacy rate, a 2005 survey conducted by the Maharashtra State Primary Education Council (Maharashtra Prathamik Shikshan Parishad) indicated that 48,000 children between Standards II and VII were

virtually illiterate.²² Regular attendance and retention are major issues in most schools. Therefore, the source of fragility is not an absence of education but the lack of options for or access to secondary education, as well as the poor quality of primary education. The focus should be on increasing access to education by increasing the supply of affordable secondary schools in the wards. Improved education would also increase the livelihood prospects of migrants.

Real Estate, Housing, and Slums

Tenancy in Mumbai is a thorny issue due to the chronic shortage and high cost of housing. Rapid economic growth has increased the demand for both basic and luxurious residences, while the demand for commercial real estate has extended to the suburbs. The city's limited geographical space has led to a dramatic increase in prices, giving rise to a nexus between builders and the mafia that acquires, demolishes, and rebuilds old properties in prime downtown locations. An average apartment in Mumbai costs 30 million rupees (\$440,000), forcing most to pay escalating rents or live in suburbs where rents are lower.²³ Even where rents are low, however, landlords ask for huge deposits to secure any damage or nonpayment of bills by the tenants. Numerous cases of tenants refusing to vacate their houses are still in court. Recently, a Mumbai court ruled in favor of the landlord after a forty-two-year court battle in a case where the tenants sought to stay in their house, arguing that they could not find alternate accommodation while the landlord was rich enough to do so.

This shortage and cost of housing explains why 41.3 percent of Mumbai's population lived in slums in 2011,²⁴ a decrease from 57.6 percent in 2006 but still a huge number in actual terms.²⁵ Slums of varying size and population are present in all wards except Ward C; slums make up almost 86 percent of the population of Ward S, and Dharavi, one of the largest slums in the world, has an area of more than 200 hectares (see Table 6 in the Appendix).²⁶ Of the estimated 100 to 300 families that migrate to

21 Brihanmumbai Municipal Corporation, available at www.mcgm.gov.in/irj/portal/anonymous?NavigationTarget=navurl://745be63a8c86ec6b74ccad4690ad4100.

22 Ibid.

23 Sunaina Chadha, "Average Cost of a Mumbai Flat Is Rs 3.03 Cr. Affordable Housing Remains a Myth in India," *First Post*, February 5, 2015, available at www.firstpost.com/business/average-cost-of-a-mumbai-flat-is-rs-3-03-cr-affordable-housing-remains-a-myth-in-india-2080551.html.

24 Office of the Registrar General and Census Commissioner, Census of India, 2011.

25 "54% of Mumbai Lives in Slums: World Bank," *InfoChange India*, Jan 9, 2006, available at <http://infochangeindia.org/poverty/news/54-of-mumbai-lives-in-slums-world-bank.html>.

26 Brihanmumbai Municipal Corporation, *Mumbai Human Development Report*, 2009.

Mumbai daily, most end up in slum colonies or shanties.²⁷

Slums are highly politically significant, and governments have been elected on the strength of their promises to rehabilitate slums. The Shiv Sena government envisaged free housing for 400,000 of Mumbai's slum dwellers, a goal it failed to meet. It is yet to be seen if the government of the Bharatiya Janata Party, which came to power in 2014, speeds up implementation of projects undertaken by the Slum Rehabilitation Authority, as many as 117 of which are still pending with the BMC.²⁸

Rehabilitating slums is a major challenge. Some of the slums are located on highly expensive real estate. Removing the slums and relocating the residents would not be accepted by the slum dwellers, and no government will risk doing this, given the slum dwellers' voting power. Governments have backed off from demolishing illegal shanties or slums to retain vote banks in these areas. Moreover, former slum dwellers often sell, rent, or abandon the new housing blocks built for them and move back to the slums.²⁹

Slums also survive due to the informal economic activity they generate, which creates economic incentives for their continuation. Dharavi, for example, has a population of 1 million and an annual economic output of about \$0.6–1 billion. Leather, tailoring, and pottery are some of the many low-skill industries thriving across the 240-hectare slum.³⁰ Dharavi is also a tourist destination, with around 18,000 tourists paying for tours of the slums in 2013.³¹ Located in central Mumbai on expensive land, a 200-square-foot shanty in Dharavi can fetch more than 1 million rupees.³² Some professionals, including doctors, lawyers, and accountants, are found living in the cramped

slums due to lack of housing.

The living conditions in most slums in Mumbai remain appalling. Slums are ecologically hazardous and disaster-prone. Sanitation is the most difficult and unhygienic aspect of slum life. Three in four slums in Mumbai depend on public toilets. The condition of these toilets is appalling; they are almost never cleaned, lack running water and electricity, and are infested with mosquitoes, dogs, or antisocial elements, making them major threats to individual and human security. As a result, roughly 6 percent of slum dwellers (420,000 people) defecate in the open.³³

The Slum Sanitation Program, supported by the World Bank, has aimed to provide high-quality sanitation services to the slum population in Mumbai. Toilets built under this program, which are supposed to have electricity and running water and to be cleaned three times a day, have replaced some toilets. For many, however, these toilets are nowhere near their colonies, and the conditions remain deplorable; by midafternoon, the toilets become unusable, forcing many to defecate in the open.³⁴ Many slums now have paid toilet services run by nongovernmental organizations (NGOs), where the water, electricity, and sanitation facilities are much better. Slum dwellers prefer to use these toilets, which come at a small fee. They also reduce the pressure on existing toilet blocks built by the government.

Toilets are unevenly distributed among the different wards. The number of people per toilet ranges from 399 to 56, with an average of 81 persons per toilet in the slums (see Table 7 in the Appendix). The BMC estimates that around 64,157 new toilet seats need to be built in the city. However, construction of only 6,050 is in progress.³⁵

27 "54% of Mumbai Lives in Slums: World Bank," *InfoChange India*.

28 "BJP Government Will Expedite Implementation of SRA Projects: Maharashtra CM Devendra Fadnavis," *Economic Times*, December 1, 2014, available at http://articles.economictimes.indiatimes.com/2014-12-01/news/56614813_1_slum-rehabilitation-authority-sra-maharashtra-housing.

29 Sanjeev Sanyal, "Slums Defy a 'Concrete' Answer," *Business Standard*, December 9, 2009, available at www.business-standard.com/article/opinion/sanjeev-sanyal-slums-defy-a-concrete-answer-10912090002_1.html.

30 Jim Yardley, "Dharavi: Self-Created Special Economic Zone for the Poor," *Deccan Herald*, available at www.deccanherald.com/content/216254/dharavi-self-created-special-economic.html.

31 Labonita Ghosh, "Tour Companies Cash in on Rising Tourist Interest in Dharavi," January 4, 2014, *Economic Times*, available at http://articles.economictimes.indiatimes.com/2014-01-04/news/45860640_1_dharavi-slum-thomas-cook-india.

32 Raksha Kumar, "In Mumbai, the \$50,000 Slum Shack," *New York Times*, November 15, 2011, available at http://india.blogs.nytimes.com/2011/11/15/in-mumbai-the-50000-slum-shack/?_r=0.

33 Shyamal Sarkar, Soma Ghosh Moulik, and Somnath Sen, "The Mumbai Slum Sanitation Program: Partnering with Slum Communities for Sustainable Sanitation in a Megalopolis," World Bank, 2006, available at <http://documents.worldbank.org/curated/en/2006/09/7346175/mumbai-slum-sanitation-program-partnering-slum-communities-sustainable-sanitation-megalopolis>.

34 Samuel Loewenberg, "Mapping Toilets in a Mumbai Slum Yields Unexpected Results," July 22, 2012, *New York Times*, available at <http://india.blogs.nytimes.com/2012/07/22/mapping-toilets-in-a-mumbai-slum-yields-unexpected-results/>.

35 Brihanmumbai Municipal Corporation, *Mumbai Human Development Report*, 2009.

Transportation

Despite the lowest car ownership of India's four largest metropolitan areas (around 40 cars per 1,000 people), Mumbai had around 2 million vehicles in 2013–2014, and it is said that in many parts of the city, walking in peak hours is faster than driving due to heavy traffic congestion.³⁶ Eighty-eight percent of commuters in Mumbai use public transportation. The Mumbai suburban rail network is the world's densest urban railway transit system. The World Bank estimates that Mumbai local trains carry passengers at densities of up to sixteen people per square meter in nine-car trains on a daily basis.³⁷ The trains mostly run north-south between the suburbs and the central business district. More than 200 trains make over 2,000 trips along more than 300 kilometers of track each day, carrying a daily total of 6 million passengers.³⁸ Because they are crowded, these trains have been unflinching targets of terrorist attacks, including in 1993, 2003, 2006, and 2008.

With a view to improving the transportation infrastructure of Mumbai, two new rapid transit system projects—the Navi Mumbai Metro and Mumbai Monorail—started operations in 2014. The Mumbai Metro has twenty stations across three lines, with a total length of 23.4 kilometers. The trains each have a capacity of around 1,500 passengers and connect airports and various suburban areas with the central business district. There are seven stations in the first phase of the Mumbai Monorail, mainly connecting south Mumbai with Chembur and Wadala Depot.

The Bandra-Worli Sea Link is another example of the authorities responding to the strained public transportation system. A new bridge was opened in 2009 linking Bandra and other western suburbs of Mumbai with the central parts of the city, reducing the travel time during peak hours from 60–90 minutes to 20–30 minutes. Immediately after its inauguration, the bridge had average daily traffic of 37,500 vehicles. Two new highways—the Eastern

Freeway connecting the eastern suburbs to south Mumbai, and the Santa Cruz-Chembur Link Road—have also considerably improved road traffic.

Pollution and Waste Mismanagement

Deonar, a neighborhood in Govandi in Ward M, has gained prominence for being the location of the largest dumping ground in Mumbai. Mulund is another big dumping ground that has been used for forty-five years. These dumping grounds have crossed their limit of intake and are now brimming with solid waste. A new site is being proposed at Kanjur Village to accommodate the growing waste. Work on this new site stalled when many NGOs filed public interest litigation against it, but in December 2014, the Mumbai High Court gave the go-ahead to the BMC to begin dumping garbage there.

The main issue with municipal solid waste in Mumbai is poor implementation of regulations. The BMC lacks the infrastructure to enforce segregation of waste, which should start in residential colonies. Even when colonies undertook initiatives to segregate wet and dry waste, BMC trucks would dump both together. Garbage disposal and management needs to be looked at with a more sustainable and long-term view, given limited land and the almost explosive increase of waste generation. Equally important is urgently reducing the extensive use of plastics for household and commercial purposes.

In terms of air pollution, levels of suspended particulate matter in Mumbai were much higher than Central Pollution Control Board standards in 2007 and 2008, according to BMC reports.³⁹ This is hardly surprising, given the number of vehicles, trains, and buses, most of which are old. Studies by the National Environmental Engineering Research Institute found that Mumbai air contains a high level of carbon monoxide and particulate matter, which come mainly from vehicle emissions.⁴⁰ These are particularly bad for patients with heart

36 The Energy and Resources Institute, "Proliferation of Cars in Indian Cities: Let Us Not Ape the West," June 2014, available at www.teriin.org/policybrief/docs/cars.pdf; Somit Sen, "Vehicles in Mumbai Increase by More than Half in Seven Years," *Times of India*, April 10, 2014, available at <http://timesofindia.indiatimes.com/city/mumbai/Vehicles-in-Mumbai-increase-by-more-than-half-in-seven-years/articleshow/33570794.cms>; "Facts on Mumbai," National Geographic Channel.

37 "Loan to Relieve World's Most Overcrowded Trains," *Railway Gazette*, July 6, 2010, available at www.railwaygazette.com/news/urban/single-view/view/loan-to-relieve-worlds-most-overcrowded-trains.html.

38 "Facts on Mumbai," National Geographic Channel.

39 Central Pollution Control Board, National Ambient Air Quality Status, 2008.

40 Ibid.

problems and can cause dyspnea and other ailments. Nonetheless, air in Mumbai is cleaner than in other metropolitan areas such as Delhi, Chennai, and Shanghai. The proposed new rapid transit system, in addition to reducing the strain on the existing train system, would also contribute to reducing vehicle pollution.

Natural and Manmade Hazards

Floods occur regularly during the peak monsoon season, mainly due to overflowing of the Mithi River running through Mumbai. The floods of July 26, 2005, in particular, caused huge loss of life and property, with about 5,000 deaths. Mumbai came to a standstill as public transportation stopped working, stranding people and leaving many to walk home along the highways and railway tracks. Several roads also became unnavigable due to uprooted trees. The impact of floods on the city is especially severe due to the antiquated drainage system, which gets clogged by storm water, leading to the mixing of sewage and water. During the 2005 floods, as well as on later occasions, leptospirosis arising from treading in knee-deep water for long hours was widely reported to have caused illness and death. Floods are a major source of damage to health and property and of displacement in slums along rivers and in low-lying areas. After the 2005 floods, the BMC took many steps to mitigate floods, such as widening and deepening water channels and upgrading the drainage system. These measures have made Mumbai better able to cope during the monsoon.

Building collapse and accidental fires are on the rise in Mumbai and are among the highest in the country. Such incidents in slums or crowded residential areas can be catastrophic and lead to great loss of life and property. Between 2008 and 2012, about 100 buildings collapsed in Mumbai. In 2013, a residential building in Thane housing more than 100 residents collapsed, as it was built without permission and was structurally unsound. In another incident, a sixty-three-year-old woman lost her entire eight-member family when the building they were living in collapsed due to heavy rains. People continue to live in unsafe environ-

ments and put their lives at risk, since these housing options are the most affordable in Mumbai. More than 14,000 buildings in the city are more than seventy years old, but due to an archaic law that limits raising rents, landlords are left with little money to invest in repairs and maintenance.⁴¹ Corruption also exacerbates the situation, with builders and government workers colluding to build poor-quality housing. Authorities say they have set up special squads to identify dilapidated buildings and evacuate the residents immediately, but the lack of plans for accommodating the evacuated residents raises questions about the sincerity of the move.⁴²

Lessons for Resilience

The “city that never sleeps” is fighting many sources of fragility that threaten its stability. A combination of complex factors emanating from Mumbai’s sociocultural history, demographic conditions, geographical positioning, and unbalanced development have produced conditions that require city authorities to act urgently to preserve its economic and social fabric.

The BMC and other public institutions of Mumbai understand the city’s fragility, as well as its strategic importance. They have tried to respond to the sources of fragility and to address them in city development plans. The 2014 BMC development plan addresses many existing concerns regarding urban planning and growth, including environmental issues. Nonetheless, further action is needed, particularly in the following areas:

1. Clarify governance structures

The multiple functions and overlapping mandates of civic agencies complicate the city’s administrative challenges. Slum rehabilitation should be a top priority for civic authorities, with strong support from the state government. The governance hierarchy needs to be clearly defined, with a clear vision for implementation. Mumbai needs to be treated as a charter city: a mini-state within a state—like Dubai, Hong Kong, or even Shanghai—that runs on different rules than the rest of the country.

41 “Why People Live in Mumbai’s Dangerous Buildings,” BBC News, July 26, 2013, available at www.bbc.com/news/world-asia-india-23415760.

42 Chetana Yerunkar, “Mumbai: BMC Asks Residents to Evacuate Dangerous Buildings,” August 3, 2015, *Hindustan Times*, available at www.hindustantimes.com/mumbai/mumbai-bmc-asks-residents-to-evacuate-dangerous-buildings/story-UFTqcAg0khWM76yMY9FRPM.html.

2. Address human trafficking

Human trafficking remains a major challenge in Mumbai. Despite some encouraging progress, much more needs to be done to reduce trafficking from current levels. Path-breaking solutions, like formalizing sex work as an occupation, need to be contemplated to break the nexus between crime syndicates and illegal trade.

3. Increase support to police

Mumbai police need to be given the necessary funding and resources and be better trained, with multiple specializations to tackle a variety of crimes. Given the city's strategic significance and the particular security threats this poses, Mumbai police must be treated specially.

4. Improve civic infrastructure

Despite some recent improvements in transportation infrastructure, the city's civic infrastructure has become insufficient for providing effective services to the large population. This is evident from the burgeoning traffic on roads and trains, large volumes of waste generation and opening of new landfills, the high cost of housing, and other problems. Some of these problems will need innovative, "out-of-the-box" solutions. As Mumbai is an aging city facing geographical constraints, it is difficult to build and create new road arteries. Using the sea to improve commuting connections between different parts of the city is a possibility that needs to be explored. Mumbai's geography also constrains its horizontal expansion, so the focus has to be on vertical development and high-rise construction.

5. Focus on equitable development

Vertical development needs to proceed along with effective rehabilitation of slums. As long as slums continue to exist and expand horizontally across the city, the scope for effective vertical development will be limited. Mumbai's main development challenges lie in making it more hospitable and equitable for all inhabitants, particularly migrants. Development should focus on wards and sections of the city with low human development, where conditions need to be substantially improved.

While it is encouraging that civic authorities are seized of the imperative of taking action and are responding to some of Mumbai's fragilities, the scale and complexity of the city's problems require efforts that might be beyond the capacity of municipal authorities and civic agencies. Local authorities, businesses, political parties, the state and national governments, regulatory agencies, civil society organizations, and the people can all play a role in addressing fragility. Mumbai has a vibrant civil society that takes initiative on all kinds of issues. An NGO Council was formed in response to the floods in July 2005, comprising sixty-nine civil society organizations working toward better governance in the city. Through corporate social responsibility and charities, many companies support large-scale public works, in addition to being directly involved in infrastructure, education, and other projects. Given its enormous significance, not only for India but for South Asia and other parts of Asia it is connected to and identifies with, Mumbai requires larger-scale interventions with coordinated efforts from multiple stakeholders. Barring an exhaustive, near-term intervention, time might run out for Mumbai.

Appendix: Demographic Data on Mumbai

Table 3. Wards in Mumbai⁴³

| No. | Ward | Areas included in wards |
|-----|-------------|--|
| 1 | A | Upper Colaba, Middle and Lower Colaba, Fort South, Fort North, and Esplanade |
| 2 | B | Mandvi, Chakala, Umarkhadi, and Dongri |
| 3 | C | Khara Talao, Kumbharwada, Bhuleshwar, Market, Dhobi Talao, and Fanaswadi |
| 4 | D | Khetwadi, Tardeo, Girgaon, Chaupaty, Walkeshwar, and Mahalaxmi |
| 5 | E | Mazgaon, Tadwadi, Nagpada 1, Nagpada 2, Kamathipura, and Byculla |
| 6 | F (North) | Matunga and Sion |
| 7 | F (South) | Parel, Sewri, and Naigaum |
| 8 | G (North) | Dadar, Mahim, and Prabhadevi |
| 9 | G (South) | Prabhadevi, Worli, Chinchpokli, and Lovegrove |
| 10 | H (East) | Khar Scheme, Hill Road and Turner Road, and Santacruz East |
| 11 | H (West) | Slaughter House, Colwada and Bandra Hill, Pali Hill, Danda, Khar Scheme, Khar and Pali, Hill Road and Turner Road, Santacruz West, Santacruz Central, and Juhu |
| 12 | K (East) | Vile Parle East, Andheri East, Jogeshwari East, Goregaon, and Village Maroshi |
| 13 | K (West) | Vile Parle West, Juhu, Andheri West, Versova, Madh, and Jogeshwari West |
| 14 | L | New Mills Kurla, Station Takia Kurla, Swadeshi Mills, Chunabhatti, Khajuribhatti and Kasaiwada, Bazar Church Hall, Naupada, and Seven Villages |
| 15 | M (East) | Chembur Proper, Mahul, Trombay, Govandi, Vadavali, Borla, and Mankhurd |
| 16 | M (West) | Chembur Proper, Mahul, Trombay, Govandi, Vadavali, Borla, and Mankhurd |
| 17 | N | Ghatkopar, Kirol Ghatkopar, Panjrapol, and Vikhroli |
| 18 | P (North) | Erangal and Daroli, Malad West, Malad East, Kurar, Dindoshi, Chincholi, Vadhwan, Valnai, Malvani, Akse and Marve, and Manori Island |
| 19 | P (South) | Goregaon and Village Maroshi, Aarey, Eksar Pakhadi, and Malad East |
| 20 | R (Central) | Borivali and Shimpoli, Eksar and Mandapeshwar, Gorai and Kulvem, Kanheri, and Magathane |
| 21 | R (North) | Eksar and Mandapeshwar, Magathane, and Dahisar |
| 22 | R (South) | Kandivli and Charkop, Poisar, and Akurli |
| 23 | S | Vikhroli and Bhandup |
| 24 | T | Mulund East, Mulund West, Nahur, Tulsi, Gundgaon, Vihar, Sai, and Klerobadi |

Table 4. Incidence of crimes committed against women in India in 2012⁴⁴

| City | Female population (100,000) ⁴⁵ | Rape | | Kidnapping/ abduction | | Dowry deaths | | “Immoral trafficking” | |
|-----------|--|------|-------|--------------------------|-------|--------------|-------|--------------------------|-------|
| | | #* | %** | # | % | # | % | # | % |
| Bengaluru | 40.58 | 90 | 2.98 | 433 | 7.78 | 51 | 7.47 | 160 | 13.68 |
| Chennai | 43.07 | 94 | 3.11 | 65 | 1.17 | 12 | 1.76 | 193 | 16.50 |
| Delhi | 75.76 | 585 | 19.34 | 1,787 | 32.12 | 100 | 14.64 | 19 | 1.62 |
| Kolkata | 67.93 | 68 | 2.25 | 210 | 3.77 | 19 | 2.78 | 39 | 3.33 |
| Mumbai | 85.20 | 232 | 7.67 | 141 | 2.53 | 11 | 1.61 | 160 | 13.68 |

* Number of incidents

** Percentage of incidents of all Indian cities

⁴³ Brihanmumbai Municipal Corporation, *Mumbai Human Development Report*, 2009.

⁴⁴ National Crime Records Bureau, 2012.

⁴⁵ 2011 Female population used due to non-availability of 2012 estimates. Census of India, 2011.

Table 5. Schools by type and enrollment in Mumbai wards in 2007⁴⁶

| Ward | Total schools | Municipal schools | Total enrollment | Population | Number of persons per municipal school |
|--------------|---------------|-------------------|------------------|-------------------|--|
| A | 39 | 15 | 17,980 | 210,847 | 14,056 |
| B | 32 | 11 | 8,305 | 140,633 | 12,785 |
| C | 24 | 10 | 4,518 | 202,922 | 20,292 |
| D | 76 | 22 | 16,881 | 382,841 | 17,402 |
| E | 87 | 46 | 24,463 | 440,335 | 9,573 |
| F/S | 69 | 42 | 24,198 | 396,122 | 9,432 |
| F/N | 122 | 65 | 62,405 | 524,393 | 8,068 |
| G/S | 74 | 62 | 19,198 | 457,931 | 7,386 |
| G/N | 93 | 54 | 41,560 | 582,007 | 10,778 |
| H/W | 81 | 37 | 28,706 | 337,391 | 9,119 |
| H/E | 86 | 58 | 40,631 | 580,835 | 10,014 |
| K/E | 141 | 75 | 58,040 | 810,002 | 10,800 |
| K/W | 127 | 58 | 56,632 | 700,680 | 12,081 |
| P/S | 80 | 37 | 34,453 | 437,849 | 11,834 |
| P/N | 158 | 78 | 68,643 | 798,775 | 10,241 |
| R/S | 94 | 31 | 44,710 | 589,887 | 19,029 |
| R/C | 98 | 46 | 38,940 | 513,077 | 11,154 |
| R/N | 63 | 22 | 27,664 | 363,827 | 16,538 |
| L | 164 | 88 | 69,947 | 778,218 | 8,843 |
| M/W | 90 | 47 | 38,363 | 414,050 | 8,809 |
| M/E | 106 | 73 | 61,632 | 674,850 | 9,245 |
| N | 122 | 77 | 51,055 | 619,556 | 8,046 |
| S | 144 | 63 | 53,597 | 691,227 | 10,972 |
| T | 84 | 45 | 26,050 | 330,195 | 7,338 |
| Total | 2,254 | 1,162 | 918,571 | 11,978,450 | 10,309 |

46 Brihanmumbai Municipal Corporation, *Mumbai Human Development Report*, 2009.

Table 6. Slum population and child sex ratio in Mumbai wards in 2001⁴⁷

| Ward | Total population | Slum population | Ration of slum population to total population | Sex ratio | |
|--------------|-------------------|------------------|---|------------|------------|
| | | | | Slum | Non-slum |
| A | 210,847 | 60,893 | 28.88018 | 787 | 712 |
| B | 140,633 | 18,746 | 13.32973 | 638 | 751 |
| C | 202,922 | 0 | 0 | - | 587 |
| D | 382,841 | 38,077 | 9.945904 | 740 | 878 |
| E | 440,335 | 52,230 | 11.86142 | 631 | 773 |
| F/S | 396,122 | 141,653 | 35.75994 | 788 | 855 |
| F/N | 524,393 | 304,500 | 58.06714 | 731 | 882 |
| G/N | 582,007 | 324,886 | 55.82167 | 735 | 908 |
| G/S | 457,931 | 151,506 | 33.0849 | 732 | 774 |
| H/E | 580,835 | 457,622 | 78.78692 | 777 | 893 |
| H/W | 337,391 | 138,541 | 41.06245 | 797 | 968 |
| K/W | 700,680 | 316,065 | 45.10832 | 761 | 925 |
| K/E | 810,002 | 472,226 | 58.29936 | 817 | 866 |
| P/S | 437,849 | 210,591 | 48.09672 | 707 | 877 |
| P/N | 798,775 | 508,435 | 63.65184 | 775 | 901 |
| R/S | 589,887 | 326,235 | 55.30466 | 687 | 860 |
| R/C | 513,077 | 173,160 | 33.74932 | 800 | 943 |
| R/N | 363,827 | 169,662 | 46.6326 | 745 | 893 |
| L | 778,218 | 658,972 | 84.67704 | 741 | 876 |
| M/E | 674,850 | 523,324 | 77.54671 | 785 | 859 |
| M/W | 414,050 | 283,557 | 68.48376 | 790 | 919 |
| N | 619,556 | 435,009 | 70.21302 | 826 | 928 |
| S | 691,227 | 593,300 | 85.83287 | 811 | 887 |
| T | 330,195 | 116,250 | 35.20647 | 830 | 930 |
| Total | 11,978,450 | 6,475,440 | 54.05908 | 770 | 859 |

⁴⁷ Ibid.

Table 7. Sanitation services in slums in Mumbai wards in 2009⁴⁸

| Ward | Slum population | Number of toilet blocks | Number of toilet seats | Number of persons per seat |
|--------------|------------------|-------------------------|------------------------|----------------------------|
| A | 85,735 | 20 | 215 | 399 |
| D | 39,965 | 73 | 695 | 57 |
| E | 154,365 | 143 | 966 | 160 |
| F/N | 205,100 | 259 | 2,349 | 87 |
| F/S | 148,220 | 376 | 2,631 | 56 |
| G/N | 326,255 | 430 | 3,985 | 82 |
| G/S | 127,950 | 275 | 2,154 | 59 |
| H/E | 478,480 | 434 | 4,945 | 97 |
| H/W | 152,330 | 211 | 1,660 | 92 |
| K/E | 463,260 | 1,193 | 7,850 | 59 |
| K/W | 306,385 | 276 | 2,474 | 124 |
| P/N | 548,670 | 721 | 6,378 | 86 |
| P/S | 205,225 | 322 | 2,371 | 87 |
| R/C | 166,645 | 449 | 2,712 | 61 |
| R/N | 173,220 | 462 | 2,750 | 63 |
| R/S | 346,575 | 498 | 3,727 | 93 |
| L | 595,385 | 618 | 5,402 | 110 |
| M/E | 477,670 | 426 | 5,461 | 87 |
| M/W | 260,210 | 289 | 3,172 | 82 |
| N | 431,600 | 532 | 5,537 | 78 |
| S | 471,860 | 1,464 | 8,380 | 56 |
| T | 109,775 | 194 | 1,712 | 64 |
| Total | 6,247,880 | 9,665 | 77,526 | 81 |

48 Ibid.

Impossible Possibilities: The Fragility and Resilience of Lagos

Jane Lumumba*

Introduction

Urban fragility is a form of state fragility defined as deteriorating governance and prolonged political crisis or conflict in an urban context.¹ The fragility of governments contributes to their lack of capacity or will to provide services to their citizens. This, coupled with a multitude of economic, political, social, and environmental urban development crises, aggravates urban violence.

The fragility of Lagos is multidimensional. At the macro-level, Lagos's fragility is a consequence of urban governance and management challenges, as well as structural economic and social conditions that contribute to urban poverty. These factors create an "anarchic" environment that further deteriorates the social, political, economic, spatial, and environmental order of the city. At the micro-level, Lagos's fragility results from competitive micro-negotiations among residents for physical, economic, and social space, governed by the dynamism of harsh informal and coded rules.

Broadly speaking, the city's challenges can be collapsed into two broad categories. The first is urban governance and management. Unlike most major African cities, which are administered by a city council, Lagos is not a single municipality and thus lacks an overall city administration.² The urban area of Greater Lagos comprises sixteen of the twenty separate municipalities that together comprise Lagos State. Therefore, the Lagos State

government provides overall governance and administration for the Lagos metropolitan region.³ The second set of challenges relates to inequality and socio-spatial segregation. As a postcolonial city, Lagos has a strong legacy of spatial segregation, which was intentionally designed to keep the European settlers away from the "Africans." There has been little attempt to deconstruct this separation, which now segregates the poor from the elite and wealthy.

The Lagos State government has received rave reviews, both locally and internationally, for its commendable job in managing one of the world's largest and most complex cities.⁴ Nonetheless, alleged corruption, a bloated government, and the city's increasing population cripple the effective governance and management of Lagos. But notwithstanding its growth rate, which has outstripped the capabilities of its governance frameworks, the emerging concerns of this megacity are related more to politics and non-governance than to urban growth.⁵

The state government in charge of the day-to-day running of the city is comprised of forty-two ministries and eighty-two parastatals, which contributes to inefficiencies and bottlenecks in decision making. Local governments have limited capacity to deal with the growing population and increasing demands of citizens, posing a fundamental challenge to service delivery, urban planning, and development. Moreover, although

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1 Steven Livingston, *Africa's Information Revolution: Implications for Crime, Policing and Citizen Security* (Washington, DC: African Center for Strategic Studies, 2013).

2 UN-Habitat, *Cities and Citizens Series: Urban Iniquities in Three Cities: Addis Ababa, Casablanca, Lagos*, 2008.

3 The Municipality of Lagos, which covers Lagos Island, Ikoyi, and Victoria Island, as well as some mainland territory, was managed by the Lagos City Council until it was disbanded in 1976 and divided into several local government areas (LGAs), most notably Lagos Island LGA, Lagos Mainland LGA, and Eti-Osa LGA.

4 For example, the World Health Organization commended former Governor Babatunde Fashola for excellent leadership in containing the Ebola virus. "WHO Praises Fashola's Effort on Ebola Management," 360nobs.com, September 13, 2014, available at www.360nobs.com/2014/09/who-praises-fasholas-effort-on-ebola-management. In 2015, former Governor Fashola received the International Crisis Group's Stephen J. Solarz Award for his "dedication to resolving social, economic and security challenges in one of the world's most challenging urban environments." International Crisis Group, "Crisis Group Honours Seven for Acting to Stop Conflicts," April 23, 2015, available at www.crisisgroup.org/en/publication-type/media-releases/2015/crisis-group-honours-seven-for-acting-to-stop-conflicts.aspx. Seth Kaplan, an expert on fragile states, governance, and development, noted in 2014 that the Lagos State government has "enhanced public transportation, cleaned up streets, upgraded the business environment and bettered the lives of its inhabitants." Seth Kaplan, "What Makes Lagos a Model City," *New York Times*, January 7, 2014, available at www.nytimes.com/2014/01/08/opinion/what-makes-lagos-a-model-city.html.

5 David Rubens, "Chaos and Complexity: Lagos and Lessons for Megacity Management in the 21st Century," Project for the Study of the 21st Century, June 23, 2015, available at projects21.com/2015/06/23/chaos-and-complexity-lagos-and-lessons-for-megacity-management-in-the-21st-century/.

Lagos is the commercial capital of Nigeria and has the highest concentration of millionaires in Africa, its economy is unable to provide enough jobs and opportunities for its residents. As a result, large pockets of urban poor are left to fend for themselves, generating a thriving informal economy and underemployment. A visible socio-economic divide manifests itself spatially and may play a role in aggravating urban violence and crime.

Despite the city's low unemployment rate, which the National Bureau of Statistics estimated at about 7.6 percent in 2012,⁶ finding meaningful employment is a great concern, particularly for youth. The formal sector is unable to absorb the growing number of college graduates and migrants from Nigeria and neighboring countries. At the same time, migrants from northern Nigeria are moving south to Lagos due to desertification in the Sahara. This puts further pressure on the city's job market and the sociocultural fabric of Lagos.⁷ The threat is manifested in ethnic militia groups, criminal gangs, and rowdy unemployed youth that compromise safety and security in the city. Criminal activities, including robberies, kidnapping, rape, murders, and arson, are widespread.

Poor city planning has led to inadequate and overburdened infrastructure, socioeconomic exclusion, flooding, urban sprawl, and increased crime. Weak transportation planning and lack of integrated urban planning have undermined urban mobility and contributed to perpetual traffic, a source of frustration that chokes the city's major highways and roads. An acute shortage of low- and middle-income housing has led to an increasing number of informal settlements and overcrowding of slums in high-risk areas, such as the Lagos Lagoon. The housing shortage has also led to the proliferation of gated communities, where the rich can enjoy an oversupply of luxury housing fully serviced by the private sector.

Access to and provision of basic services such as clean drinking water, healthcare services, and education facilities are inadequate, particularly in informal settlements. Electricity in Lagos is

irregular, and almost all businesses and homes rely on expensive generators. Inadequate solid waste management systems leave parts of Lagos covered in waste and filth, leading to environmental and health problems. The effects of climate change, such as changes in temperature and rising sea levels, have led to more flooding, increasing the city's vulnerability to natural hazards and environmental degradation. The large number of cars on the roads and industries in the periphery of the city contribute to high levels of air and water pollution, which has adverse environmental and health effects.

This picture suggests the enormity of the challenges that Lagos's administrators and citizens face. In the following sections, this paper analyzes in more detail the sources of Lagos's fragility. It then considers several initiatives different actors have undertaken to respond to those stresses. It concludes by providing a set of recommendations for enhancing resilience in Lagos. As Lagos is one of the largest and most complex urban systems on the continent, some lessons may be relevant for other African cities facing similar challenges.

Sources of Stress and Fragility

KEEPING PEOPLE SAFE: SECURITY CHALLENGES

The security issues in Lagos are multifold. Urban violence and criminal activities are linked to political struggles, the city's complex economic hierarchy, and acute urban poverty. Insecurity and crime have risen over the last couple of years despite various state initiatives to curb lawlessness. According to the National Crime Victimization and Safety Survey of 2013, 62 percent of Lagos residents fear falling victim to some sort of crime. Further analysis by the Cleen Foundation found that the percentage of residents perceiving an increase in crime rose from 12 to 21 percent from 2010 to 2013.⁸

However, evidence on the level of crime in Lagos is contradictory. Despite both empirical and

6 Household and Micro Enterprise Sector," 2010.

7 Chukwuedozie Ajaero and Patience Onokala, "The Effects of Rural-Urban Migration on Rural Communities of Southeastern Nigeria," *International Journal of Population Research* (2013).

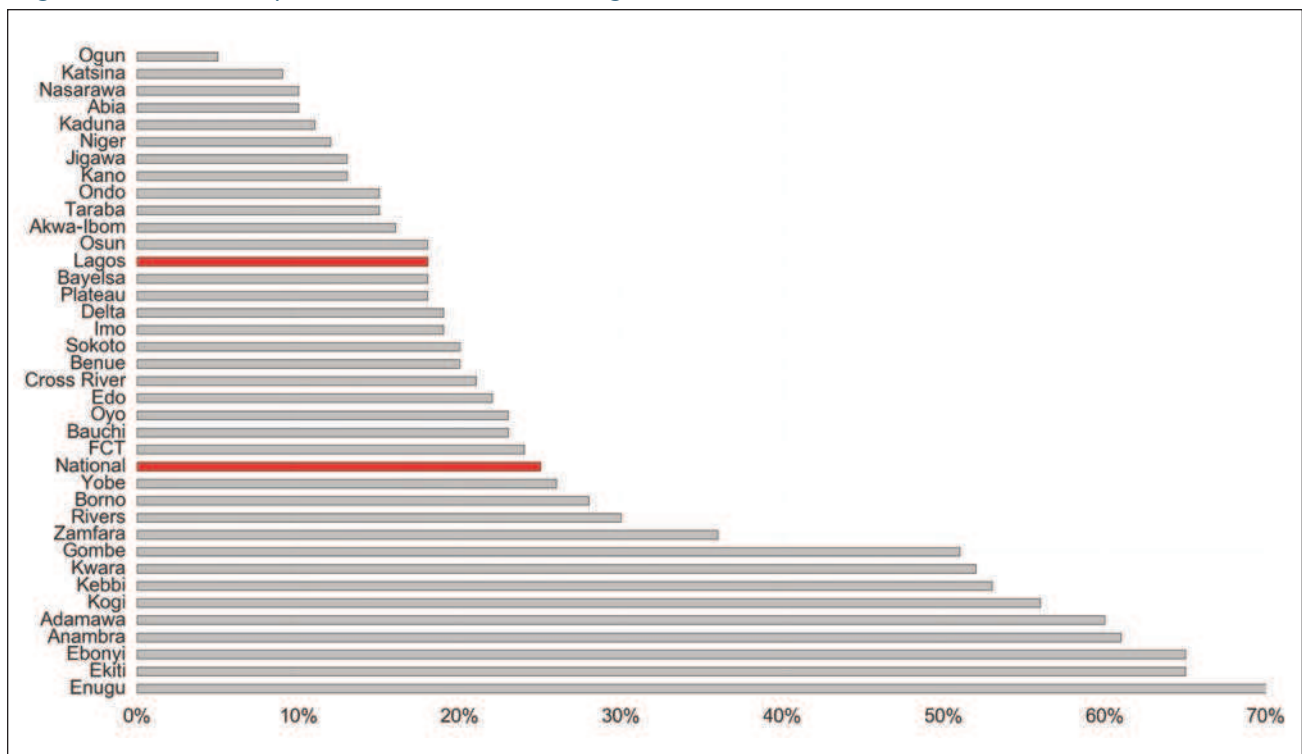
8 Cleen Foundation, "Public Presentation of Findings of the National Crime Victimization and Safety Survey," 2013, available at www.cleen.org/Text%20Report%20of%202013%20NCVS%20Findings.pdf.

anecdotal evidence that security and safety are deep concerns for city residents, the National Crime Victimization and Safety Survey found that only 18 percent of people in Lagos State actually experienced crime in 2013, compared to 70 percent in Enugu State. Lagos seems to be among the safest cities in the country. When juxtaposed with the national state of security, Lagos appears to be a safe haven in comparison to cities in northern Nigeria experiencing the Boko Haram insurgency.

Lagos's large youth population further contributes to violence in the city. Despite economic growth in Nigeria, unemployment and underemployment remain major concerns, partic-

ularly for youth. Nigeria has a youth population of about 80 million, representing 60 percent of the total population, and the reported unemployment rate among urban youth aged 20–24 was 40 percent in 2011⁹ (a rate that contradicts the officially reported national unemployment rate of 7.6 percent). This large unemployed youth population has led to acute urban poverty, which ultimately contributes to violence and unrest in the city. Criminal and gang activities are carried out by what are locally referred to as “area boys,” who engage in illegal sale of drugs, robberies, and petty thefts and perform odd jobs for compensation and protection by their *ogas*.¹⁰

Figure 1. Actual experience of crime in Nigeria¹¹



9 Christopher Ehinomen and Babatunde Afolabi, “Rising Youth Unemployment and Its Social Economic Implications for the Growth and Development of the Nigerian Economy,” 2015.

10 *Oga* is a Yoruba word meaning “man in charge,” “boss,” “leader,” or “powerful man.” It is used to refer to people who carry some form of power.

11 Cleen Foundation, “Public Presentation of Findings of the National Crime Victimization and Safety Survey, 2013.

Box 1. Space and crime

Lagos's spatial configuration may play a role in how urban violence manifests itself in the city. A study by the World Bank found that the built environment has an important, albeit complex, relationship with urban violence, affecting social behavior through four channels:¹²

1. Inadequate infrastructure means that there may be no safe spaces for public gathering.
2. Narrow alleyways and lack of street lighting may create opportunities for violent crimes.
3. Limited infrastructure and services may cause frustration and a sense of exclusion, leading to violent outbursts.
4. Inadequate infrastructure makes residents vulnerable as they try to meet basic needs such as fetching water.

Lagos Mainland is one of the most highly populated areas of the city, and a bridge separates it from Victoria Island and Ikoyi, where most of the city's elite reside. The wealthy residents of Lagos can provide security services for themselves, limiting their exposure to criminal activity. On the mainland, where urban poverty prevails, the rate of crime is higher. Residents in these parts of Lagos are not able to protect themselves from crime due to inadequate infrastructure, lack of security services, and other factors. Therefore, the city's spatial setup may influence criminal patterns and frequency, which this paper will not delve into. Further empirical study is needed to explore the relationship between the city's spatial setup and urban violence.

Organized crime in Lagos is also a concern and is compounded by its ethnic nature. An example is the Oodua People's Congress (OPC), an organized gang comprised mostly of the Yoruba people whose mission is to promote and defend Yoruba interests. The gang has existed for over a decade and continues to threaten Lagos residents through both minor and major criminal activities across the city. In a recent example, on January 10, 2014, the Lagos State government reported that a group of women was murdered and raped in Ejigbo, a suburb of Lagos, which led to a public outcry demanding that the Lagos State government intervene.¹³

The potency of OPC's criminal escapades has overpowered state security forces. Local residents say that members of OPC and other gangs are untouchable because they use what are locally referred to as "charms" and witchcraft practices. A specific form of witchcraft used to evade the police is called *ayeta*, or "bulletproof." Members of the gang consult witchdoctors, who perform rituals to make sure gang members evade bullets fired at them by police. According to eyewitnesses, the charms are successful and have contributed to

minimal police presence in areas where members of OPC and other gangs reside. This speaks to the broader state of rule of law in the country, where the effectiveness of justice and court systems suffers from corruption and lack of transparency. Furthermore, the witchcraft industry is said to benefit economically from criminals and gang members who pay hefty fees to seek protection and immunity from the justice system.

The political elite also protect gangs and ethnic militia members, making it difficult for the police to effectively enforce the law. Ethnic militia groups are usually influenced by national-level political struggles.¹⁴ Elites use the gangs to exercise political violence and competition through brutal assassinations and armed clashes. Political violence in Nigeria stems in part from the "politicization of culture," whereby colonial-era laws make cultural identity, and hence ethnicity, the basis for political identity. As a result, ethnic conflict from the past remains a dimension of contemporary political life. This is exacerbated by economic growth tied to extractive industries, which results in movement that disrupts traditional settlement patterns.¹⁵ This

12 World Bank Social Development Department, "Violence in the City: Understanding and Supporting Community Responses to Urban Violence," 2011.

13 "Seeking Justice for Ejigbo Sodomy Victims," *This Day Live*, January 13, 2014.

14 Adrienne LeBas, "Violence and Urban Order in Nairobi, Kenya and Lagos, Nigeria," *Studies in Comparative International Development* 48, no. 3 (2013).

15 Mahmood Mamdani, *Political Violence and State Formation in Post-Colonial Africa*, International Development Centre, 2007.

phenomenon has repercussions well beyond Lagos city, shedding light on the connection between the fragility of the city, the state, and oil revenues.

Over the last five years, Lagos has absorbed numerous migrants from northern Nigeria. Some are leaving areas where the terrorist organization Boko Haram operates. Others are so-called “climate migrants” leaving their native land due to deforestation, food insecurity, lost farmland, and other effects of climate change. These new migrants end up in the bustling informal settlements of Lagos, living in extreme poverty, resorting to crime, and suffering from social isolation due to cultural and religious differences. In 2001, for example, intense riots between the Muslim Hausa people from the North and the Christian Yoruba people brought such social tensions to light.

Women are particular targets of urban violence.

The Lagos State Parks and Gardens Agency reports that, in the morning, their workers find torn clothes in the parks as testament to the large number of women raped during the night.¹⁶ This crime particularly affects women whose livelihoods depend on the use of public spaces.

Kidnapping is also a great cause for concern, especially for women and wealthy residents. Kidnappers usually target the relatives of well-known citizens in the hope of profiting from ransom fees. The Lagos State government has recognized that it needs to put adequate structures in place to deal with the rising number of kidnappings in the city. However, widespread corruption within the police force nullifies any efforts. Police rely on bribes and sometimes are the perpetrators of crime, further compounding efforts to curb violence.

Box 2. ICT and cybercrime

The increase in mobile phone and Internet penetration in Africa has increased access to information and communication technology (ICT), leading to ingenuity with regards to cybercrime. Cybercrime consists of a variety of criminal acts perpetrated through the Internet, including e-mail scams, hacking, data theft, and extortion.

According to the Norton Cybercrime Reports, this phenomenon is driven by unemployment.¹⁷ Young men can be found in the city’s Internet cafés sending e-mail scams to unsuspecting victims all over the world. The use of ICT and mobile phones provides anonymity for the criminals, making it difficult to track and penalize them. The increase in cybercrime in sub-Saharan Africa also results from inadequate resources for local law enforcement and government security services to combat the threat.¹⁸ Although studies find that ICT can also facilitate the reporting of crimes, this is not common in Lagos. Instead, lack of resources and the general unpreparedness of public officials for rapid urban expansion have led communities to cooperate with informal or criminal actors who have effective and durable control of urban territories.¹⁹

In response to cybercrime, the federal government of Nigeria has set up a cybercrime working group, which developed the Nigeria Cyber-Security Project in 2005. This working group is an interagency body made up of all key government law enforcement, security, intelligence, and ICT agencies, as well as some major private organizations in the ICT sector. Today, the status of this working group is unclear.

16 Interview with employee of Lagos State Parks and Gardens Agency, February 12, 2014.

17 Norton by Symantec, *2012 Norton Cyber Crime Report*, (Mountain View, CA: Symantec, 2012).

18 Dustin Bessette, Jane LeClair, and Randall Sylvertooth, “Communication, Technology, and Cybercrime in Sub-Saharan Africa,” in *New Threats and Countermeasures in Digital Crime and Cyber Terrorism*, edited by Maurice Dawson and Marwan Omar (Hershey, PA: IGI Global, 2015).

19 Agnese Macaluso and Ivan Briscoe, “Trapped in the City: Communities, Insecurity and Urban Life in Fragile States,” Knowledge Platform on Security & Rule of Law, May 28, 2015.

PROVIDING SERVICES: DEVELOPMENT CHALLENGES

The UN Human Settlements Programme (UN-Habitat) and UN Population Fund (UNFPA) have identified Lagos's population growth as a key development challenge for the city. According to a UN-Habitat report, growth is mainly due to rural migrants, who are said to account for 75 percent of the population increase.²⁰ This large population contributes greatly to the city's economy. In 2013, the city's internally generated revenue stood at 23 billion naira (\$115 million) per month, and this figure is set to increase in the coming years.²¹ At the same time, however, the increasing population adds pressure to the city's crippled infrastructure and capacity to provide basic public services.²²

A powerful example of the city's incapacity to deliver public services is the irregular provision of power and electricity. This affects not only Lagos residents but also the attractiveness of Lagos as an investment destination. Community leaders in various local government areas have raised concerns to the state government over the deteriorating electricity supply. The Power Holding Company of Nigeria is regularly ridiculed for its inability to provide constant electricity. As a result, companies and households alike have to rely on generators to power buildings, which raises the cost of doing business in Lagos. Small business owners normally lack the funds to purchase generators, which affects the growth of their businesses.

Water is another resource in short supply. Lagos city has a total water production capacity of 210 million gallons per day, leaving a deficit of 330 million gallons per day. This shortfall in supply is due to the increase in population and inadequate power supply. It has led to the proliferation of boreholes, as only 10 percent of the city receives water from the Lagos Water Corporation.²³ Digging

these "unofficial" wells of up to sixty feet is a booming yet contentious sub-industry in Lagos's wealthy neighborhoods, where a large tank of water can sell for \$500. This practice has adverse environmental effects, such as saltwater intrusion from the Atlantic Ocean and land collapse due to the depletion of groundwater.²⁴ These effects are raising concerns among environmentalists and public health professionals.

Slum dwellers resort to alternative ways of accessing drinking water. For example, residents of Makoko, an informal settlement built on stilts in Lagos Lagoon, boil black water from the lagoon for both drinking and domestic consumption. Illegal cartels provide cleaner water, but this is a more expensive option for residents. Reforms in the water sector, including privatization, have been suggested as a way to improve water provision in the city.

Access to and provision of healthcare services and education within informal settlements is minimal. The maternal mortality rate in Lagos is higher than in other states in the country, at 650 per 100,000 live births.²⁵ The high demand for maternal health is not met due to inadequate facilities in public hospitals. Another problem is that rural migrants in the city rely on traditional methods of treatment, putting them and their children at risk. The alternative of private hospitals is too expensive for most residents, and the quality of service at these hospitals is at times compromised. Most wealthy people opt to travel outside the country to Europe and America for medical treatment and care.

Despite strong economic growth, Lagos suffers from a high level of inequality (its Gini coefficient is more than 0.6),²⁶ and its reported unemployment rate is 7.6 percent.²⁷ For slum dwellers, the main economic activities include fishing and selling

20 UN-Habitat, *The Challenge of Slums: Global Report on Human Settlements*, 2003.

21 "Learning from Lagos," *The Economist*, July 4, 2015.

22 Olaoluwa Akinwale et al., "Living Conditions and Public Health Status in Three Urban Slums of Lagos, Nigeria," *South East Asia Journal of Public Health* 3, no. 1 (2013).

23 Judith Afooma Jideonwo, "Ensuring Sustainable Water Supply in Lagos, Nigeria" (master's thesis, University of Pennsylvania, 2014), available at http://repository.upenn.edu/cgi/viewcontent.cgi?article=1056&context=mes_capstones.

24 Bennett Oghifo, "Population, Power Reduce Potable Water Supply in Lagos to a Trickle," *This Day Live*, January 20, 2015, available at <http://allafrica.com/stories/201501201348.html>.

25 Cited in Idowu Senbajo et al., "Maternal and Child Under-Nutrition in Rural and Urban Communities of Lagos State, Nigeria: The Relationship and Risk Factors," *BioMed Central*, 2013.

26 UN-Habitat, *State of the World's Cities 2012/2013: Prosperity of Cities*, 2012, available at <https://sustainabledevelopment.un.org/content/documents/745habitat.pdf>.

27 Nigerian National Bureau of Statistics, "National Manpower Stock and Employment Generation Survey: Household and Micro Enterprise Sector," 2010.

wood and scrap metal from landfills. Women often find alternative livelihoods, such as sex work, that pose great health risks. These women lack access to adequate healthcare and money to take care of themselves.

Still, the city has a thriving and vibrant informal economy. In this informal economy, no one works for themselves; instead, people labor for their *oga*,²⁸ who also reports to other *ogas*. This complex economic hierarchy, with *ogas* reporting to *ogas*, benefits workers in the informal economy by providing them with cash, protection, and financial support. This patronage system also helps the city absorb the influx of migrants who have no chance in the formal economy.

Providing adequate housing in Lagos has been a challenge. An acute housing shortage has resulted in a deficit of 5 million houses, accounting for 31 percent of the national deficit of 18 million houses.²⁹ This deficit is both quantitative and qualitative, as existing houses have deficient structures, exhibited by the proliferation of slums in the city. Land accessibility, the high cost of building materials, weak financial and mortgage systems, and lack of capacity in the building and construction sector contribute to the shortage. These conditions discourage both the public and private sectors from investing in housing.

At the same time, urban transformation and renewal in the city have resulted in the building of attractive hotels, extravagant office buildings, and shopping malls that cater to the rich, at the cost of the urban poor. Slum dwellers are frequently evicted and slums demolished to provide land to build malls and roads. Women and children are worst hit by demolitions, as their homelessness renders them insecure and vulnerable. Weak land tenure puts the urban poor at constant risk of demolitions and evictions, leading to further impoverishment.

Urban mobility is another major development challenge.³⁰ The Bus Rapid Transit (BRT) system introduced in Lagos in 2008 was meant to improve public transportation and ease chronic traffic. Despite major challenges in the implementation of

the BRT system, there were some immediate improvement and benefits for commuters.

Over the last five years, however, Lagos residents seem to have lost hope in the BRT system. The road network, which is insufficiently extensive, considering the population of Lagos, cripples the functionality of the BRT system. The inadequate number of multilane arterial roads and poor maintenance of buses exacerbate traffic congestion. Reckless driving and the inconvenience of bus stop locations discourage users. The link between social class and use of the BRT system is pronounced, as the middle class prefers car ownership, and the rich do not use public transportation because of status concerns. Many in the middle and lower classes opt for cheaper alternatives, such as the ubiquitous yellow minivans known as *danfos* and motorcycles called *okada*. However, recent reports of criminal activities by *okada* operators are threatening the once thriving business and causing panic and alarm among Lagos residents.

MANAGING THE CITY: GOVERNANCE CHALLENGES

The consequences of rapid urbanization in Lagos have put to test the state government's management and governance responses. As the city expands and its population increases, the pressures on management and effective service delivery have become visible. Because they are connected to the informal economy, informal organizations and social networks in most Nigerian cities have been found to undermine the political empowerment of communities rather than increasing their agency in urban governance.³¹ At the same time, local governments in the city do not effectively support the state government in delivering urban governance.

The role of local government is crucial in ensuring governance and service delivery down to the level of the lowest administrative unit. The city is divided into a total of fifty-seven local government areas: twenty local government areas (LGAs) and thirty-seven newly created local council development areas (LCDAs). The Nigerian constitution recognizes LGAs but not LCDAs. The Lagos

28 *Oga* is an Igbo word literally meaning "man in charge."

29 Enisan Olugbenga and Ogundiran Adekemi, "Challenges of Housing Delivery in Metropolitan Lagos," *Research on Humanities and Social Science* 3, no. 20 (2013).

30 See Cooperation for Urban Mobility in the Development World, "The Role of Urban Mobility in (Re-)Shaping Cities," Addis Ababa, October 22–26, 2012.

31 Kate Meagher, "Informal Economies and Urban Governance in Nigeria: Popular Empowerment or Political Exclusion?" *African Studies Review* 54, no. 2 (2011).

State government uses the LCDAs to allocate budgets based on the principle of federalism and to promote grassroots development.³² Local governments are democratically elected. However, the relationship between functions of the state ministries, state parastatals, and local governments is not clear, making it difficult to effectively provide services. Moreover, systems for accountability and transparency of local governments are weak, encouraging high levels of corruption.

The administration of former Governor Bola Ahmed Tinubu (1999–2007) confronted the challenges facing the then deteriorating situation in Lagos by establishing over eighty parastatals to provide effective service delivery.^c The administration of former Governor Babatunde Raji Fashola (2007–2015) continued this setup. Unfortunately, these parallel agencies work in silos, leading to duplication and inefficiencies. Furthermore, through its parastatals and ministries, the Lagos State government has taken over most services that local governments are best placed to deliver due to their proximity to the people. The lack of adequate fiscal transfers further undermines the ability of local governments to undertake the functions assigned to them.

Former Governor Fashola has been hailed for transforming the chaotic city into a somewhat livable space. Many Lagos residents have been supportive of the former Fashola administration and believe it has done a commendable job, despite the city's challenges. The administration's achievements include improved public transportation, traffic management, cleaned up streets, and a broadened tax base. Nigeria's 2015 elections saw the departure of Governor Fashola and his replacement by Akinwunmi Ambode. It is hoped that Governor Ambode will build upon Fashola's legacy to ensure continuity in the transformation of Lagos State.

However, there is still a large democratic deficit between elected local government officials and the electorate in Lagos. Elected councilors rarely fulfill their promises after obtaining their positions, leaving the electorate frustrated. Furthermore, lack

of accountability and transparency add to the frustration of residents. Routine procedures, such as obtaining licenses and building permits, usually require hefty bribes.

Governance and planning are interlinked processes that affect the spatial, economic, and social success of a particular space. Lack of a clear planning philosophy for Lagos has led to the unequal physical development of the city and increasing socio-spatial polarization. The city has a multi-nuclei structure, with several businesses districts, including the Lagos Island business district. In the past, the state government paid little attention to land-use planning, infrastructure development, and provision of public services, resulting in the relocation of Nigeria's political capital to Abuja in the early 1990s. The city's growth has outpaced the capacity of Lagos State to deal with the increasing population, infrastructure networks, economic diversification, housing, and provision of public services. The consequences of poor urban planning have included the formation and proliferation of slums, socioeconomic exclusion, poor sanitation and solid waste management, environmental degradation, traffic, overburdened infrastructure, crime, and insecurity.

Lessons for Resilience

Lagos's capacity to adapt has been lauded by Western architects such as Rem Koolhaas, who have found that the city is self-organizing and able to reinvent itself.³⁴ Despite the challenges facing Lagos, it has been able to build and achieve resilience. Public-private partnerships have aimed to improve service delivery. Policies and legislative and institutional reforms over the last ten years have led to a restructuring of state agencies. E-governance systems, such as the Lagos State Government Electronic Banking System of Revenue Cycle Management project, have successfully enhanced revenue performance. Programmatic interventions, such as the comprehensive World Bank–assisted Lagos Metropolitan Development and Governance Project, have

32 Michael Filani, *The Changing Face of Lagos: From Vision to Reform and Transformation* (Ibadan, Nigeria: Cities Alliance, 2012).

33 In the case of the Lagos State government, parastatals are specialized government agencies that undertake functions for the city. Examples of parastatals include the Lagos State Electricity Board and Lagos Water Corporation. These specialized agencies are either associated with a ministry or are independent institutions headed by permanent secretaries.

34 Rem Koolhaas et al., *Mutations* (Cambridge, MA: Harvard Project on the City, 2001).

successfully addressed sources of fragility related to governance. The complexity of urban dynamics in Lagos actually contributes to the city's resilience. This speaks to the possibilities for resilience of other conurbations in Nigeria.

The Lagos State government revealed that it spent up to 12 billion naira (approximately \$60 million) between 2007 and 2014 to fight crime and sustain order in the city.³⁵ Lagos State has increased the security presence by putting in place mobile police patrol areas in strategic points across the city. A joint military patrol service comprising state police and the Nigerian army (Operation Mesa) has also been set up to complement state police efforts. Many Lagos residents claim that the presence of Operation Mesa makes them feel safer. Furthermore, the state government has a dedicated and working emergency call line, the first of its kind in the country. In collaboration with the federal government, the city began an initiative to install 10,000 closed-circuit television (CCTV) security cameras. Lagos State is planning to activate the 1,000 cameras already installed in the city to help fight crime and monitor traffic.³⁶ In the city's informal settlements, however, insecurity, low trust in government, and absence of police officers have left residents with no choice but to use mob justice and community policing methods to protect themselves.

Despite public sector inefficiencies, the privatization of public goods and services partly fills the service provision gap. In the case of security, private security companies provide services such as personal bodyguards, sophisticated home and car alarm systems, and private guards for houses and buildings—contributions that Governor Ambode lauded.³⁷ Neighborhood associations also play a critical role in ensuring the provision of services and security. Neighbors pool their money to jointly pay for private security, centralized boreholes for water, generators, and private companies to take care of their neighborhoods. In the wealthier neighborhoods of Lagos, private developers and wealthy businessmen have introduced the concept

of fully serviced estates. These estates have private water, electricity, and drainage infrastructure, providing quality and efficient basic services without relying on the public sector. This has resulted in the duality of Lagos and raises questions about equity and access, as public goods provided by the private sector become “club goods” accessible only to those who can afford them.

Engagement in public-private partnerships has bridged funding gaps and provided technical capacity to improve provision and quality of services. A key example was Lagos State's launching of the Bus Rapid Transit system in 2008 with support from the World Bank—the first such system in sub-Saharan Africa. Despite the challenges that have faced the overall management of the BRT system, it demonstrated how private sector involvement can complement state services, which could also be carried over into other sectors. Other recent responses to traffic in Lagos have included refurbishment of traffic lights in the city. The state also monitors and manages traffic using CCTV cameras, and the Fashola administration set up a dedicated twenty-four-hour traffic radio station. This is the only traffic station of its kind in Nigeria, providing listeners with real-time traffic updates, accident news, and route options during peak hours.

The government announced in early 2014 that it would build a fourth mainland bridge—the Lekki-Ikoyi link bridge. This bridge would reduce the travel time between Ikorodu, located along the Lagos Lagoon, and Lekki, a local government area of Lagos. The Lagos State Waterways Authority has begun offering limited jetty services from Lagos Island and Lagos Mainland to Ikorodu. The Waterways Authority has also engaged in a public-private partnership with Eko Water Buses Limited to offer transport services using the waterways. In addition, the Lagos Metropolitan Area Transport Authority planned to launch the first phase of the Okokomaiko-Marina (Blue Line) light-rail mass transit system, which was to be ready for operation in mid-2014. However, the project has been stalled

35 Gboyega Akinsanmi, “Lagos Spends N12bn on Crime Fighting in 7 Years,” *This Day Live*, August 8, 2015.

36 Bola Badmus, “Lagos Government to Install 10,000 CCTV Cameras, Budgets N23.5bn for Security,” *Nigerian Tribune*, January 4, 2016, available at www.tribuneonlineng.com/lagos-government-to-install-10000-cctv-cameras-budgets-n235bn-for-security.

37 Akinsanmi, “Lagos Spends N12bn on Crime Fighting in 7 Years.”

38 Onyedimmakachukwu Obiukwu, “Eyebrows Raised over Stalled \$1BN Light Rail Project in Lagos,” *Ventures Africa*, September 11, 2014, available at <http://venturesafrica.com/eyebrows-raised-over-stalled-1bn-light-rail-project-in-lagos/>.

Box 3. The Eko Atlantic development

In search of a permanent solution to protect part of the city from coastal erosion and Victoria Island from the threat of flooding, the Lagos State government came up with the idea of reclaiming land and building a new city. Already under construction and sold out, Eko Atlantic is an addition to Victoria Island and has reclaimed 2 million square meters of land. The objective of this development is to transform Lagos into the largest financial center in Africa. However, there is a significant risk that Eko Atlantic could become an exclusive hub for the wealthy, providing them solace from the chaos of Lagos while ignoring the rest of the city.

due to lack of financing and will not be in operation until 2017, at the earliest.³⁸

The city's response to climate change has been hailed as one of the most successful on the continent. In 2012, the Lagos State Climate Change Adaptation Strategy was adopted to guide the state on climate change matters. The relatively new Department of Climate Change at the State Ministry of the Environment has been aggressively involved in mitigating and adapting to the effects of climate change on the city. Examples have included the planting of trees and rehabilitation of green spaces and climate change activism through the public school system. Communities that live on the lagoon and next to the lagoon, such as Makoko and Ebute Metta, have responded to extreme flooding by building houses that rest on wooden stilts. An initiative by the UN Development Programme (UNDP), these communities, and the Lagos State government will aim to supplement these measures by developing sustainable floating houses using durable material in the informal settlements of the lagoon.

In a bid to address rising unemployment since 1999, the government has introduced programs such as vocational training for youth. In addition, the state has implemented a major science and technology program, 7,000 graduates of which have been employed in the formal sector since the early 2000s. The state also uses microfinance institutions to drive job creation. The Lagos State Microfinance Institution provides free loans to women and youth to start their own businesses. E-commerce companies are trying to overcome the challenges of inadequate infrastructure and chronic traffic in the city. For example, online grocery stores like Gloo.ng and Supermart.ng offer delivery services,

such as through skater boys who deliver letters, food, and other goods and services to residential and commercial clients. Based on anecdotal evidence, such initiatives have majorly contributed to job creation.

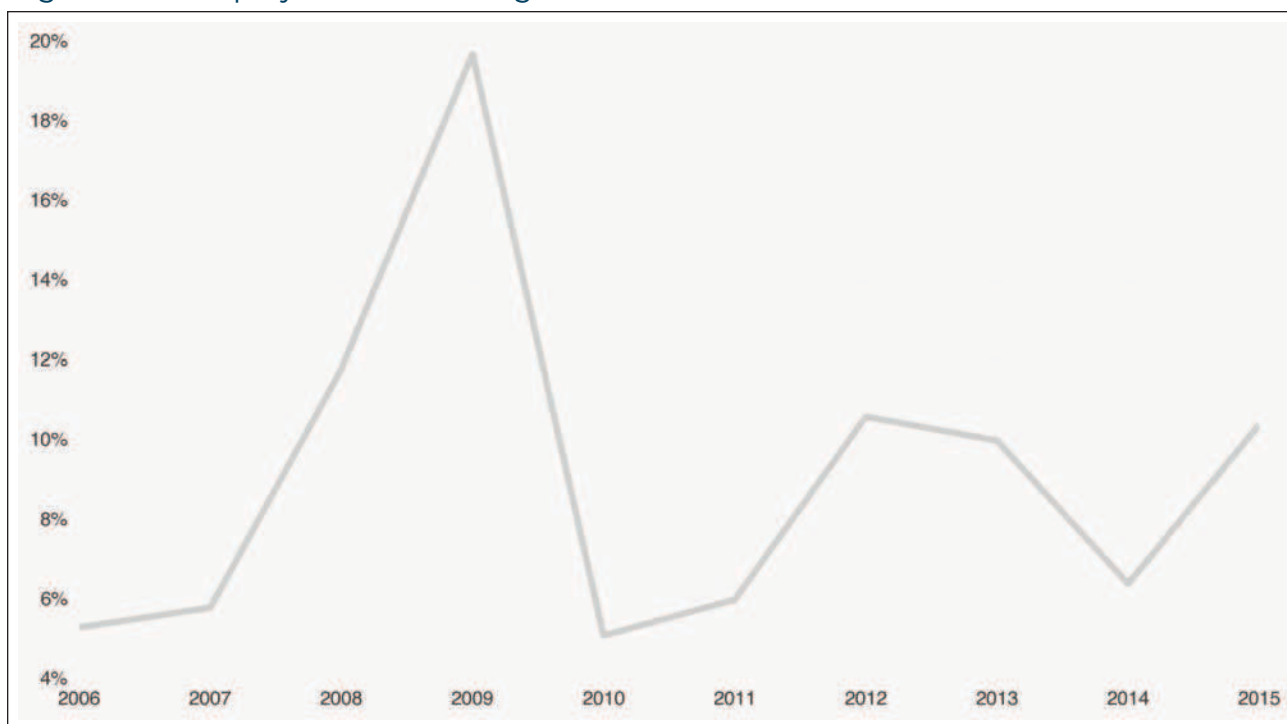
However, employment statistics in Nigeria are contested. For example, in 2014, the Nigerian National Bureau of Statistics reported that the national unemployment rate was 6.4 percent; just two years earlier, in 2012, it had reported a rate of 23.9 percent (see Figure 2). The National Bureau of Statistics justified this figure by claiming it revised its methodology, but many Nigerians contested its validity.³⁹ In reality, unemployment remains high, and job creation is a priority, both for the Lagos State and national governments.

Recommendations for Building Strength and Resilience in Lagos

Set to be the world's third largest city, Lagos can provide lessons for cities not only in Africa but around the world. Despite the city's multifaceted and dynamic fragility, its evolving nature and character present a model case for urban resilience in the twenty-first century. The recommendations here focus on urban governance as the factor underpinning the city's political, socioeconomic, and environmental success. The Lagos State government has made positive strides by relying on internally generated revenue, improving public transportation, and other achievements.

Two main actions could improve the resilience of Lagos. First, a more resilient Lagos requires a reworking of the current governance system, with

39 Bassey Udo, "Outraged Nigerians Blast Government Over 6.4% Unemployment Claim," Premium Times, May 15, 2015, available at www.premiumtimesng.com/news/headlines/183054-outraged-nigerians-blast-govt-over-6-4-unemployment-claim.html.

Figure 2. Unemployment rate in Nigeria⁴⁰

more power for local government areas (LGAs) and better service delivery by well-governed and adequately resourced institutions and agencies. Second, there is a need to rethink the planning of Lagos. As the city continues to grow, pressure on its physical, socioeconomic, and environmental infrastructure has increased. A resilient, dynamic planning philosophy could be one solution to this pressure by fostering sound spatial design to enhance socioeconomic development and environmental stability.

LEAN GOVERNMENT AND STRONGER INSTITUTIONAL FRAMEWORKS FOR SERVICE DELIVERY

A leaner state government could better manage the development and growth of Lagos and avoid duplication of functions and mandates between multiple agencies.⁴¹ The number of ministries and parastatals should be collapsed to ensure efficiency, decrease the state's public wage bill, and redirect

funds to programmatic interventions. Priority should also be placed on building the capacity of LGA councils and local council development areas (LCDAs) to implement their responsibility of urban governance for local development.⁴²

Municipal finances should be earmarked for the improvement of service delivery. Effective participatory mechanisms should be put in place to allow various stakeholders to contribute to the decision-making process. Strengthening institutional frameworks to improve service delivery through multi-level governance platforms could ensure that local governments implement their mandate at both the state and local levels.⁴³ The following key areas should be strengthened:

- Legal policy and administrative framework for LGAs
- Capacity of the state government and LGA councils for service delivery and public-private partnerships

40 Nigerian National Bureau of Statistics, Unemployment Statistics.

41 Lean government is defined as the application of lean business principles in order to identify the most effective methods of providing government services.

42 Local government areas are local government units within the Lagos metropolitan area and are administered by a local government council. Local council development areas are lower-tier administrative units.

43 Multi-level governance can be defined as "a situation where public authorities in charge of a given policy domain belong to various levels of authority and policy competences, and budgetary resources are distributed across these levels of government. This increases the number of actors, organizations, agendas and policies to be coordinated in order to achieve coherent policies." Innovation Policy Platform, "Multi-level Governance," available at www.innovationpolicyplatform.org/content/multi-level-governance.

- Institutionalization of pro-poor service delivery
- Legislative provisions that allow local governments to generate endogenous revenues

The importance of local governance for a better Lagos is in line with the new global development framework—the 2030 Agenda for Sustainable Development—which has recognized local governments as key agents of change and development. The localization of the Sustainable Development Goals (SDGs) will see local governance units playing a major role in meeting development targets and indicators. Furthermore, local governments' proximity to their constituents makes it easier for them to identify and target the needs and concerns of the city and its inhabitants.

URBAN PLANNING FOR SOCIO-ECONOMIC AND ENVIRONMENTAL RESILIENCE

Nigerian architect Adetokunbo Ilesanmi suggests that, to be sustainable, Lagos has to reduce social polarization and spatial fragmentation. These have resulted in a situation where inhabitants can no longer depend on the city administration (the state government) to provide basic services and must therefore rely on diverse strategies to survive.⁴⁴ Addressing the increasing vulnerabilities of urban systems in the wake of rising socioeconomic and environmental insecurities requires a paradigm shift in the planning philosophy of Lagos.

A new planning philosophy could remedy the challenges facing the city. This approach should be informed by resilience thinking that takes into account external dynamics that accelerate urban economic, social, and spatial vulnerabilities. A resilient planning practice is defined by two main features: (1) its ability to absorb change and disturbance and (2) the persistence of systems while retaining basic functions and structures.⁴⁵

Implementing a resilient planning practice is a dynamic process that enables both the hardware (physical infrastructure, environmental features) and the software (governance structures, socioeconomic profile) of the city to deal with internal and external shocks, such as increasing population, rising sea level, economic shock, and change in government. Adaptive capacity, self-organization, and transformability are part and parcel of a resilience-planning paradigm. This approach requires an integrative framework for making collective decisions based on technical knowledge and the unique social characteristics of the city.

This system would result in a long-term approach for dealing with immediate problems, defined priorities, and preparedness for both major shocks and changes, such as increased crime, unemployment, and housing shortages. It would produce flexible solutions that take into account spatial, socioeconomic, and environmental heterogeneity.

44 Adetokunbo Oluwole Ilesanmi, "Urban Sustainability in the Context of Lagos Mega-City," *Journal of Geography and Regional Planning* 3, no. 10 (2010).

45 Ayda Eraydin, "Resilience Thinking for Planning," in *Resilience Thinking in Urban Planning*, edited by Ayda Eraydin and Tuna Tasan-Kok (New York, NY: Springer Dordrecht Heidelberg, 2013).

Community-Based Resilience to Security and Development Challenges in Medellín

*Heidy Cristina Gómez Ramírez**

Introduction

For the past few years, the city of Medellín has experienced urban armed conflict, with the proliferation of illegal armed groups fighting over neighborhoods and comunas in a struggle for territorial control. While Medellín is often regarded internationally as a success story and a model for urban transformation, diverse and changing forms of violence persist—from physical violence linked to illegal armed groups, to structural violence evidenced by social inequality. Both physical and structural violence have major impacts on vulnerable populations in the city. Yet at the same time, violence-affected communities have managed to resist insecurity and build resilience.

In the context of the municipal government’s “social urbanism” policy, which is credited with drastically decreasing homicide and advancing economic development, community-driven initiatives to build resilience have often been overlooked. Yet violence in Medellín is far from over; in the last five years, violent crime, including homicides, forced displacement, disappearances, and forced recruitment of children and teenagers into armed groups, remains a constant for some residents. Key to the ongoing armed struggle is competition for microtrafficking and extortion markets as important sources of income.

Still, to interpret the violence in Medellín as linked exclusively to the existence and activity of armed groups is to take a reductionist perspective, ignoring other important factors, including extreme social inequality. Medellín currently has among the highest levels of inequality in Colombia, and there is a wide gap between the quality of life in its marginalized and more affluent sectors. This

inequality contradicts the narrative of development and innovation presented by the city.

This case study includes analysis from the research project “Citizen-Based Strategies to Improve Community Security: Working with Vulnerable Populations to Address Urban Violence in Medellín,” led by the Observatory of Human Security of Medellín at the Institute of Regional Studies at the University of Antioquia.¹ This project has brought into the public arena the need to understand and propose alternatives to the existing model of security using a wider approach, including through the paradigm of human security—a “people-centered,” multidisciplinary understanding of security—as well as dialogue between academia and the community.²

The research concludes that the current dominant approach to security, which views it through a restricted and militaristic lens, overlooks the multiple kinds of violence communities face by focusing only on criminal and delinquent acts. The perspective taken by the Observatory of Human Security of Medellín does not exclude these acts but rather understands them as part of the structural conditions that reproduce inequality, exclusion, and violence. Alternative approaches, generated “from below” in areas with community safety agendas, aim to contribute to public policy and significantly transform the city’s social order. These proposals do not seek to replace the responsibility of the state to provide security to its citizens. Instead, they aim to recognize the agency of the urban community in resolving complex problems and building a safer and more prosperous society.

After presenting the demographics and recent urban policies in Medellín, this case study will examine the current sources of stress and fragility in the areas of security, development, and

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1 This research project was funded by the International Development Research Centre (IDRC). The research was conducted in 2012 and 2013 with a team of academic and community researchers.

2 UN Development Programme, Human Development Report 1994 (New York, NY: Oxford University Press, 1994), p. 23, available at http://hdr.undp.org/sites/default/files/reports/255/hdr_1994_en_complete_nostats.pdf.

governance. It will assess institutional responses to Medellín's challenges to date and offer key lessons from community-based initiatives that resist insecurity and build resilience.

DEMOGRAPHICS AND CITY ORGANIZATION

Medellín is the second most populous city in Colombia, after Bogotá and before Cali. The population of Medellín is approximately 2,417,325 people.³ It is the capital of the Department of Antioquia and part of the metropolitan area of the Aburrá Valley, which consists of ten municipalities crossed by the Medellín River from south to north.

The city of Medellín is divided into six major zones along the river and further subdivided into sixteen *comunas* and five rural areas.⁴ The municipality is made up of 249 neighborhoods legally recognized in the Plan de Ordenamiento Territorial (Land Use Plan), and the greater municipal area includes five townships or districts. Neighborhood renewal processes have resulted in the legalization of many unauthorized settlements, or *barrios*, built on the hillsides surrounding the city.⁵ Indeed, in recent planning exercises conducted by each of the *comunas* and districts of the city, communities identified new neighborhoods that are not yet included in the land use plan but that they expect to be certified as part of a process of including and recognizing those who inhabit them.

EXAMINING MEDELLÍN'S TRANSFORMATION

Just two decades ago, Medellín was known as one of the world's most violent cities; today, it is often hailed as one of the world's most innovative. As the headquarters of Pablo Escobar's violent drug cartel

in the 1990s, Medellín had 6,349 murders in 1991, a rate of 380 per 100,000 people.⁶ Since then, the murder rate has fallen by more than 80 percent, and the city is seen as a compelling case for tackling high crime rates through its "social urbanism" policy. Embraced by several successive mayors, this policy is centered on integrating violent and underdeveloped hillside settlements into the city center.

Mayor Sergio Fajardo first outlined the idea of social urbanism during his 2003–2007 administration, declaring that the city's most beautiful buildings should be in its poorest areas.⁷ Moving beyond law-enforcement-only approaches to crime, the city made public investments—from a cable car network and often-pictured hillside escalator in Comuna 13 to libraries and parks.⁸ This approach has been praised internationally as a new model for urban development and crime reduction. In 2013, Medellín was selected as the "City of the Year" in an urban innovation competition sponsored by the *Wall Street Journal* and Citi Bank.⁹

But while organized criminal violence seems to have declined, armed groups have splintered, with gangs and paramilitary groups competing for territorial control. The organized crime of the 1980s and 1990s—when a few very powerful drug organizations dominated—has become the disorganized violence of today. This leaves some residents of the city in constant contact with violence and crime, including homicide, forced displacement, and forced disappearance (see Table 1). These security challenges and other sources of anxiety are explored further in the following section.

3 Alcaldía de Medellín, "Encuesta de Calidad de Vida," 2013 [in Spanish], available at www.medellin.gov.co/irj/go/km/docs/pccdesign/SubportaldelCiudadano_2/PlandeDesarrollo_0_17/IndicadoresyEstadisticas/Shared%20Content/Encuesta%20Calidad%20de%20Vida/ECV2013/PDFs/01Poblaci%C3%B3n.pdf. This instrument was designed to monitor and measure the socioeconomic conditions of the inhabitants of the sixteen *comunas* and five rural areas that form the municipality of Medellín. According to Colombia's National Administrative Department of Statistics (DANE), the city's annual average population growth rate is 1.14 percent.

4 The zones are not officially defined territories but are used to describe the location of *comunas* in the city.

5 Ivan Turok, "The Seventh World Urban Forum in Medellín: Lessons for City Transformation," *Local Economy* 29, nos. 6–7 (2014), p. 2.

6 Sibylla Brodzinsky, "From Murder Capital to Model City: Is Medellín's Miracle Show or Substance?" *The Guardian*, April 17, 2014, available at www.theguardian.com/cities/2014/apr/17/Medellin-murder-capital-to-model-city-miracle-un-world-urban-forum.

7 Turok, "The Seventh World Urban Forum in Medellín," p. 2.

8 Robert Muggah, "Fixing Fragile Cities: Solutions for Urban Violence and Poverty," *Foreign Affairs*, January 15, 2015, available at www.foreignaffairs.com/articles/africa/2015-01-15/fixing-fragile-cities.

9 "Colombia's Medellín Named 'Most Innovative City,'" BBC News, March 1, 2013, available at www.bbc.com/news/world-latin-america-21638308.

Table 1. Crime rates in Medellín¹⁰

| | 2012 | 2013 | 2014 | 2015 |
|-----------------------|-------|-------|-------|-------|
| Homicides | 1,251 | 921 | 653 | 495 |
| Forced displacements | 2,546 | 1,853 | 1,774 | 1,752 |
| Forced disappearances | 521 | 654 | 644 | 505 |

Sources of Stress and Fragility

SECURITY

In spite of Medellín's remarkable progress in safety over the last decade, violence remains a problem. For the last forty years, Medellín has been marked by cycles of violence linked to factors such as drug trafficking and the consolidation of illegal armed groups—from urban militias to gangs to paramilitary organizations. These groups now form large and significant criminal networks. The Clan Usuga (or Los Urabeños) is a criminal gang that consolidated after the demobilization and reintegration process that occurred in the city in 2003. It conducts drug and arms trafficking with a transnational scope and remains active as a “neo-paramilitary” group.¹¹ The Oficina de Envigado (or Valle de Aburrá), a network formed in the 1980s that long controlled criminal gangs and the drug trade in Medellín, is one of the earliest criminal organizations linked to drug trafficking. Yet in recent years, a proliferation of criminal groups has disputed its hegemony in the city, fragmenting its control and membership.

One 2012 study of violence in Medellín identified at least 300 distinct violent groups, pointing to an intense level of disorganized violence in the city.¹²

These armed groups often confront each other, clash with public security forces, and threaten citizens' security. Yet their control of territory and populations is weaker than the dominant drug cartels that preceded them. Medellín's homicide rate remains one of the highest in all of Latin America, and while it does not come near the levels of homicide experienced in the 1990s, “the situation meets the threshold of war according to most interpretations of international law.”¹³ The police force's lack of legitimacy compounds insecurity and makes citizens doubt their safety and protection. Without a functioning institutional framework for protection, community members face potential human rights violations.

In 2014 and 2015 human rights groups have reported a significant decrease in homicide, although rates of forced disappearances and forced displacement remain constant (see Table 1).¹⁴ The recorded decrease in homicides and other crimes cannot, however, be directly attributed to police action, as pacts or alliances between illegal armed groups have also influenced the level of violence.¹⁵ Security experts confirm that a “criminal truce” exists between rival drug trafficking organizations in the city. Territory and drug business is divided among the gangs, and neighborhoods within gang territory continue to suffer from the resulting threats and violence.¹⁶

10 Personería de Medellín, *Informe sobre la Situación de Derechos Humanos en la Ciudad de Medellín 2015* [in Spanish], (Medellín: Universidad de Medellín, 2015).

11 “Neo-paramilitary” groups are the remnants of paramilitary groups, which reproduce those groups' violent elimination of all opposition and use of atrocities to generate terror. For example, the Urabeños include former lieutenants and survivors of the Medellín cartel, while the Rastrojos paramilitary organization includes former lieutenants from the Norte del Valle cartel. The Colombian government refers to neo-paramilitary groups as *bandas criminales* (BACRIM). Lilia Bernal Franco and Claudia Navas Caputo, “Urban Violence and Humanitarian Action in Medellín,” *Humanitarian Action in Situations Other than War*, discussion paper no. 5, June 2013, available at [http://cerac.org.co/assets/pdf/Other%20publications/Hasow_6_Urban%20violence%20and%20humanitarian%20action%20in%20Medellin_\(6jun\)_CN.pdf](http://cerac.org.co/assets/pdf/Other%20publications/Hasow_6_Urban%20violence%20and%20humanitarian%20action%20in%20Medellin_(6jun)_CN.pdf).

12 Ibid.

13 Robert Muggah and Claudia Navas Caputo, “The Future of Humanitarian Action to Be Decided in Medellín,” *OpenDemocracy*, July 13, 2013, available at www.opendemocracy.net/robert-muggah-claudia-navas-caputo/future-of-humanitarian-action-to-be-decided-in-medellin.

14 According to data from the government of Medellín's Information System for Safety and Coexistence (SISC), homicides decreased an average of 30 percent per year between 2012 and 2015. Inter-city forced displacement, however, has increased in recent years, with people forced to leave their homes due to direct threats from armed groups.

15 In July 2013, it was reported that a meeting was held in a municipality near Medellín between the leaders of the most important criminal organizations in the city—Clan Usuga and Oficina de Envigado—in order to agree on a “criminal truce.” Since then, there has been a marked decrease in the number of homicides, although recently some situations seem to indicate the breaking of the pact.

16 Brodzinsky, “From Murder Capital to Model City.”

DEVELOPMENT

Trying to understand the violence in Medellín exclusively through the existence and activity of these armed groups is reductionist and ignores other factors, including economic inequality and social inequity, which significantly affect communities in the city. Medellín has seen overall improvements in well-being. Its score in the Human Development Index (HDI) has improved due to economic growth and increases in income and education levels.¹⁷ Between 2004 and 2011, Medellín's HDI score increased from 80.21 to 86.44.¹⁸ Nonetheless, with a Gini coefficient of 0.526 in 2014, Medellín ranks as one of the most unequal places in Latin America and among the most unequal cities in Colombia.¹⁹ This inequality contradicts dominant narratives about Medellín as a successful model for urban development and innovation and demonstrates that the concept of development must be broadened to include income, goods, proficiencies, and opportunities, as well as standard human development indicators.

Colombia's National Administrative Department of Statistics (DANE)²⁰ classifies each area of the country according to socioeconomic stratification criteria that represent the income and quality of life of residents, as determined by the physical condition and location of houses. For Medellín, 12 percent of residents (86,000 households) are classified as lower class, 36 percent (255,000 households) as lower-middle class, and 29 percent (206,650 households) as middle class. Only 13 percent of households in Medellín are classified as upper or upper-middle class.²¹ The number of residents living below the poverty line decreased 8.9 percentage points between 2008 and 2013, and

extreme poverty decreased from 6.1 to 3.0 percent in the same period.²²

Marginalized communities that inhabit the hillsides of the city, many of them victims of forced displacement from rural to urban areas, are most affected by security deficits and high levels of poverty. According to the Multidimensional Quality of Life Index (IMCV), which ranges from a low of 0 to a high of 100, the difference between the upper and lower classes in Medellín exceeds 40 points. Medellín's El Poblado sector had a score of 76.6, while the Popular sector had a score of 32.9, reflecting severe levels of inequality.²³ Indeed, more than 26,000 people in Medellín still live without electricity, running water, or sewage facilities.²⁴

Despite national and international recognition of the urban planning models the city has developed, these models have not been enough to reduce the levels of inequality and inequity. Furthermore, problems of inequality, social exclusion, and poverty have side effects on other dimensions of human security, including access to employment and decent housing.²⁵ These public services are particularly important in a city that has such high levels of development and promotes a discourse of social urbanism and transformation.

GOVERNANCE

As noted above, social urbanism centers on improving access to public spaces for all citizens by constructing spaces such as libraries, parks and green areas, and community centers. While Medellín has seen advances in infrastructure and public spaces, the improvements are concentrated in particular areas of the city and inside the *comunas*. In planning these interventions, local

17 The Human Development Index (HDI) rates countries not only based on economic variables, such as income or how households or individuals spend their money, but also on variables related to education and health. Medellín's HDI was calculated based on the criteria used by the United Nations until 2009.

18 Administrative Department of Planning, "Pobreza y Condiciones de Vida de los Habitantes de Medellín, 2011" [in Spanish], 2012, p. 34.

19 Medellín Cómo Vamos, "Informe de Calidad de Vida de Medellín 2014: Desigualdad, Pobreza y Demografía" [in Spanish], 2014, available at www.medellincomovamos.org/informe-de-indicadores-objetivos-sobre-c-mo-vamos-en-desigualdad-pobreza-y-demograf-a-2014.

20 The National Administrative Department of Statistics (DANE) is the public authority responsible for planning, collecting, processing, analyzing, and disseminating official statistics in Colombia.

21 This instrument was designed to track and measure the socioeconomic conditions of the inhabitants of Medellín's sixteen *comunas* and five districts. Administrative Department of Planning, "Encuesta de Calidad de Vida" [in Spanish], 2011, available at www.medellin.gov.co/irj/go/km/docs/wpcontent/Sites/Subportal%20del%20Ciudadano/Planeaci%C3%B3n%20Municipal/Secciones/Publicaciones/Documentos/Encuesta%20Calidad%20de%20Vida/ECV_2011APROBADA/ECV_2011_Presentaci%C3%B3n.pdf.

22 Medellín Cómo Vamos, "Pobreza y Desigualdad" [in Spanish], March 11, 2015, available at www.medellincomovamos.org/pobreza-y-desigualdad.

23 The Multidimensional Quality of Life Index (IMCV) takes into account a wide range of economic, physical, and social dimensions, including poverty, education, health, access to housing, the environment, income, and public safety. Administrative Department of Planning, "Pobreza Monetaria y Condiciones de Vida de los Hogares de Medellín" [in Spanish], August 2013, available at www.medellin.gov.co/irj/go/km/docs/pccdesign/SubportaldelCiudadano_2/PlandeDesarrollo/ObservatoriodePoliticPublicas/Shared%20Content/Pobreza%20y%20condiciones%20de%20vida%20en%20la%20ciudad%20de%20Medell%C3%ADn,%202012.pdf.

24 Personería de Medellín, "Informe sobre la Situación de Derechos Humanos en la Ciudad de Medellín" [in Spanish], 2013, p. 65.

25 In recent years, the unemployment rate in Medellín has been stable, between 12 and 13 percent.

authorities' social analysis was limited, leading to the marginalization and continued segregation of populations living in informal settlements, principally on the city periphery. Medellín's informal settlements have a high population density, reaching up to 700 inhabitants per hectare and with an average of only 1.35 square meters of public space per inhabitant.²⁶ UN-Habitat, in its agenda for developing countries, proposed that green areas should be equivalent to nine square meters per inhabitant.²⁷

Progressive urbanization processes should promote social and political conditions that allow inclusive cities to consolidate, with the well-being of the people as their main axis. This people-centered approach to urban development places citizens above a “stones and cement” approach.²⁸ The debate between these two approaches is currently playing out in relation to the approval of the Land Use Plan of Medellín,²⁹ which proposes the construction of large-scale infrastructure in high-risk hillside settlements, where approximately 280,000 people are currently living.³⁰ These projects, some already in development, are oriented toward expansion, redevelopment and consolidation, and overall improvement of neighborhoods.³¹

Responses to Fragility

THE FAILURE OF THE SECURITIZED MODEL

Violence, crime, and urban conflict have turned Medellín into a laboratory of political and institutional actions. The need for an overarching security strategy has been recognized only in recent years, after violence began expanding socially and

spatially, and it became clear it would affect not only marginalized communities but the city's entire population.³² Investment in security has thus been significant and is increasing. The security budget grew from \$17 million in 2012 to \$86 million in 2014. The Ministry of Security was created in 2012 to strengthen security and justice agencies and create specialized forces on crime and the use of information technology to improve safety. This ministry now has responsibility for the personal safety of those who inhabit the city.

Interventions in areas experiencing intensified conflict demonstrate the failure of this securitized model, as social issues and other root causes remain, and the violence has not decreased. In cases like Comuna 13 (San Javier) and Comuna 8 (Villa Hermosa),³³ interventions brought in a greater police presence in 2012, but although the police secured high-value targets, they also violated the rights of the inhabitants through cruel and degrading treatment.

Such strategies create environments conducive to continuation of the violent conflict rather than promoting community-based resilience and ongoing citizen initiatives to prevent and resolve violence. From the perspective of human security, the larger challenge is to promote higher levels of participation in security responses—to genuinely hear and engage communities in designing responses rather than conditioning or manipulating them in order to legitimize political and often partisan decisions.

COMMUNITY INITIATIVES: PATHS TO RESILIENCE IN THE MIDST OF VIOLENCE

People adopt numerous and disparate approaches to dealing with violence, from self-censorship,

26 The average public space in the city fluctuates between 3.50 and 3.53 square meters per inhabitant. The World Health Organization (WHO) established a standard of 10 square meters per inhabitant, while Decree 1504 (1998) from the president of Colombia established 15 square meters per inhabitant as the national standard. Alcaldía de Medellín, “Plan de Desarrollo 2008–2011: Medellín Es Solidaria y Competitiva” [in Spanish]; Medellín Cómo Vamos, “Movilidad y Espacio Público” [in Spanish], March 11, 2015, available at www.medellincomovamos.org/movilidad-y-espacio-p-blico.

27 UN-Habitat, “Issue Paper on Public Space,” May 2015, available at http://unhabitat.org/wp-content/uploads/2015/04/Habitat-III-Issue-Paper-11_Public-Space-2.0.compressed.pdf.

28 Joan Clos, speech at National Urban Forum, Medellín, June 14–15, 2012.

29 The Land Management Plan (POT) is a tool for local development planning that includes environmental, economic, and social objectives. It orients the organization of municipal and departmental territories and is regulated by Law 388 of 1997.

30 These population estimates are taken from data used in Medellín Cómo Vamos, “Cinturón Verde Metropolitano: ‘El Buen Detalle’” [in Spanish], n.d., available at www.medellincomovamos.org/editoriales/cinturon-verde-metropolitano-el-buen-dios-esta-en-el-detalle; and the Center for Urban and Environmental Studies at Universidad EAFIT.

31 Projects already in development include the Path of Life, which is part of the Jardín Circunvalar (\$260 million); Articulated Life Units (\$3 million); the Ayacucho Tram (\$42.2 million); the Naranjal Partial Urban Renewal Plan (\$285 million); and the River Park.

32 Gerard Martin, *Medellín Tragedia y Resurrección: Mafia, Ciudad y Estado, 1975–2012* [in Spanish] (Bogotá: Editorial Planeta, 2012), p. 241.

33 In recent years these two comunas have had the highest insecurity and violence in the city, including two important events: in Comuna 13 (San Javier), the peacekeeping Operation Orion was implemented in 2002, and in Comuna 8 (Villa Hermosa), the first paramilitary demobilization was held in 2003 with the Bloque Cacique Nutibara.

coexistence, and acceptance of the control exercised by illegal armed groups to resistance against this control. The history of Colombia is marked not only by decades of sociopolitical violence, but also by resilience and the capacity to act and respond to this violence.³⁴ In Medellín, community-based initiatives of resistance and resilience aim to influence government development models and public security policies. Citizens have called for a more inclusive approach that embraces human development and recognizes the social impact of narrow, militaristic security interventions. The challenge in Medellín lies mainly in reconciling the proposals made by communities “from below,” such as agendas for community safety, with existing public policies. These community proposals advocate a deep transformation of the city’s social order.

At an institutional level, when the conflict was most intense in the early 1980s, the Presidential Council for Medellín was established and worked hand in hand with some local nongovernmental organizations. Council members visited the barrios to open academic and community dialogues.³⁵ The council worked in *comunas* and districts of the city affected by armed groups. As its support for these communities slowly grew, community-based initiatives that sought to resist violence and benefit the public formed.³⁶ In the midst of violence in the intervening decades, these groups established communal, social, and institutional processes aimed at building resilience, including local peace agreements, commitments to nonviolence and conflict resolution, and demobilization of armed groups. In the same way, spontaneous planning exercises made the process of recognizing neighborhoods and formalizing districts of the city more participatory. These contributed to the development of plans for land use, cultural development, and local safety and coexistence, resulting in more inclusive models for city planning.³⁷

Community-based initiatives aim to separate

their approaches not only from the physical violence of armed groups but also from the structural violence sustained by exclusive development models. Citizen responses to violence are built over time, through processes that are consultative across the neighborhood, mobilize particular groups, and establish social and community organizations. These responses range from reconfiguring neighborhoods to gain legal recognition and improving infrastructure to directly facing and addressing violence, insecurity, and fear. These community initiatives develop from residents’ individual or collective actions targeting human security in its many dimensions, including social, physical, cultural, and economic. Generating higher levels of popular participation in solving complex problems is not to replace the state’s responsibility as a guarantor of its citizens’ safety but to recognize the ability of community members to build safe and prosperous urban environments.

Lessons for Resilience

In Medellín, Comuna 13 (San Javier) has become one of the most emblematic cases of urban resilience. This resilience was shown by research on Comuna 13 after peace walks and demonstrations in 2002 in the midst of armed confrontations resulting from Operation Orion.³⁸ Operation Orion left a large number of people missing, dead, or displaced, but it also left a community that grew stronger in the face of so much adversity, including physical violence from armed agents and symbolic violence from societal exclusion and stigmatization. Comuna 13’s resilience is shared with other neighborhoods and *comunas* of the city affected by violence.

But the violent example of Comuna 13 is not the only case that can or should be acknowledged, as this would further the invisibility of community initiatives, such as those undertaken by women in Comuna 1 (Popular); boys, girls, and teenagers in Comuna 6 (Doce de Octubre); the lesbian, gay,

34 Jaime Rafael Nieto López et al., “Resistencia Civil No Armada al Conflicto Armado y la Exclusión Social, Casos Comunas 8, 9 y 13 de Medellín, 2002–2006” [in Spanish], Universidad de Antioquia, 2008.

35 Martin, *Medellín Tragedia y Resurrección*.

36 Among the better known that still exist in the community are the Convivamos Corporation in Comuna 1, the Popular Picacho con Futuro Corporation in Comuna 6, and the Nuestra Gente Corporation in Comuna 2.

37 Heidy Cristina Gómez Ramírez et al., “Control Territorial y Resistencias: Una Lectura desde la Seguridad Humana” [in Spanish], 2012, p. 127.

38 Pablo Emilio Angarita Cañas et al., “Dinámicas de Guerra y Construcción de Paz: Estudios Interdisciplinario del Conflicto Armado en la Comuna 13 de Medellín” [in Spanish], Universidad de Antioquia, 2008; Heidy Cristina Gómez Ramírez et al., *Nuestras Voces sobre Seguridad Humana: Diálogos sobre Seguridad* [in Spanish], Observatorio de Seguridad Humana de Medellín (Medellín: Imprenta Universidad de Antioquia, 2014).

bisexual, and transgender (LGBT) population and the displaced population in Comuna 8 (Villa Hermosa); and youth in Comuna 13 (San Javier). In each of these *comunas*, we found positive examples of resilience, with a great diversity of community initiatives.

While these initiatives featured different sectors of the community and a diverse set of objectives, they had several characteristics in common. The following emerged as lessons for community-based initiatives seeking to address urban fragility and promote resilience:

1. Offer alternatives to young people in contexts of urban conflict

Artistic and cultural forms such as hip hop use language that allows young people to express their expectations and disagreements related to conflicts in their communities and the violence faced by those who live there in the absence of the state. Initiatives could also focus on generating political, academic, and professional educational opportunities to open new paths to a decent life.

2. Dignify people who are marginalized or excluded by chronic poverty and insecurity

In these communities, local population groups often organize, hoping to reestablish their rights and improve their security at a personal level. Women, for example, have established mechanisms to strengthen their autonomy and security in their neighborhoods. Displaced people have consolidated work spaces, such as in the Garden School (Huerta Escuela), where they enhance food security by drawing on customs of working the land. And the LGBT community has succeeded in establishing important processes in their neighborhoods to recognize the right to a different sexual choice, using concrete political actions that target their immediate social environment, including educational institutions.

3. Restore community values

This is an important objective, given that conflict has damaged the social fabric and diminished hope in communities. Community initiatives aim to counteract these phenomena by creating meeting opportunities and spaces for residents of the community, as well as by providing recreational activities. In this way,

these initiatives provide other forms of interaction that have continued in the face of adversity and sometimes even diminished the influence of control measures imposed by violent groups.

4. Shed light on problems, initiatives, and responses at the community level

Community-based initiatives serve as mechanisms not only to denounce problems but also to cope with violence. Projects of local development, security, and coexistence can both diagnose the *comunas*' situation and promote an understanding of the *comunas* that takes into account community responses through "work groups" in different sectors.

Through a human security lens, it is possible to determine three aspects of the above initiatives that underpin their effectiveness. First, they have an impact on the realities and situations that create human insecurity. Rather than being passive participants, the communities directly influence their level of vulnerability through concrete actions and specific goals. Second, these initiatives transform the citizens' and the government's notions of security by fostering a broader understanding of the problems that contribute to this insecurity. Therefore, they question the traditional approach to security and highlight the rights of displaced people, young people, women, and the LGBT population. Third, these community initiatives have the capacity to transform the conditions that affect certain dimensions of human security, such as personal security, community security, political and food security, and, in the case of Medellín, security for women.

In examining community-based resilience in Medellín, it is important to highlight the progress already made by groups of women and young people whose project designs and aims have become reference points for other community groups. The constant work of these groups for rights and peace, and their perseverance through the threats and risks they face as victims of armed conflict, serve as real-time examples of resilience in the midst of urban conflict. The "bottom-up" approach to building resilience outlined above recognizes the agency of the communities affected by violence and fragility. Through this human security approach, it is possible to build and support initiatives that address the multiple forms of violence that citizens continue to face in Medellín.

Conclusion

Francesco Mancini*

The cases presented in this report give the overarching impression that fragility is not a term that can be meaningfully generalized. As with states, all cities are fragile in different ways. Urban fragility is created by an intricate mix of factors connected to a city's geographical features, historical heritage, and current political and socioeconomic dynamics. Still, the cases in this report—Bangkok, Dhaka, Mumbai, Lagos, and Medellín—confirm that urban fragility can generally be seen as the extent to which urban systems—including not only infrastructure and ecological systems but also social, economic, and political systems—are susceptible to damage incurred by shocks.

Within the diverse spectrum of fragility, three common features emerge from the five cities examined in this report: socioeconomic and spatial segregation, rapid population growth, and suboptimal governance systems.

Regarding the first feature, while some shocks affect whole metropolitan areas regardless of the affluence of inhabitants, such as floods in Dhaka and Mumbai, others have a greater impact on poor and disadvantaged populations, such as lack of public services in Lagos and Bangkok. In fact, security, development, and governance capacity are rarely distributed uniformly across urban areas. Urban fragility, therefore, has a spatial dimension, as socioeconomic and political conditions determine the degree of fragility that each urban dweller experiences.

This hardly new phenomenon has been called “dual or divided cities,” where income inequality and the unequal distribution of economic opportunities across groups become key drivers of fragility.¹ This socioeconomic and spatial segregation leads to the erosion of formal urban governance and the breakdown of the “social contract” between public authorities and disadvantaged citizens, increasing the likelihood of criminal

violence and social unrest. This first feature of fragility is clearly described in all the cases under consideration in this report.

Second, the authors agree that the pace of urban population growth, more than the actual size of the city, is an indicator of fragility. This is consistent with past research suggesting that the unprecedented pace of urbanization has stressed urban institutions in many developing countries to their breaking point.² All the cities examined here have to cope with an increasing flow of migrants, mainly from rural areas, in search of better livelihood opportunities.

The third common feature of fragility is cumbersome governance systems composed of multiple agencies with competing and overlapping jurisdictions, without defined lines of authority and accountability, and permeated by the local rent-seeking strategies of national political parties. The politicization of local authorities in Dhaka, the fragmentation of governance in Lagos, and the overlapping jurisdictions of institutions in Mumbai, aggravated by widespread corruption, are all sources of fragility that highlight the centrality of governance, including city management and urban planning, in building resilience.

Lessons from the Cases

Before identifying cross-cutting recommendations for building resilience in cities under stress, it is worth highlighting the lessons from each of the five cases.

BANGKOK

The Bangkok case study by Apiwat Ratanawaraha reminds us of the unequal distribution of fragility across the different socioeconomic groups of the Thai capital. Although Bangkok has experienced a string of crises in recent years, ranging from severe flooding and economic downturns to political

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1 Peter Marcuse, “What’s so New about Divided Cities?” *International Journal of Urban and Regional Research* 17, no. 3 (1993).

2 Robert Muggah, *Researching the Urban Dilemma: Urbanization, Poverty and Violence* (Ottawa: International Development Research Centre, 2012), p. 40.

unrest, mass looting, and shooting, the city seems to bounce back repeatedly. This picture, however, hides the individual fragility and hardship that the poor and vulnerable segments of the population face. “While the upper and middle classes may be able to avoid the shocks altogether and recover quickly, poor and vulnerable populations invariably take more time to recover, if they recover at all,” writes Ratanawaraha. And every time a new shock strikes, it becomes harder for the continuously larger and more complex urban system to cope.

In addition to this socioeconomic dimension, the unequal distribution of fragility in Bangkok has a spatial dimension across different areas and neighborhoods. For example, those living in the informal settlements along the Chao Phraya River and its canals are overexposed to daily health hazards from waste, pollution, and periodic flooding.

In Bangkok, as in the other cases, inequality, in both its socioeconomic and spatial dimensions, is “the most pressing source of stress that makes the city fragile and vulnerable to environmental, economic, and political shocks.” Increasing inequality in Bangkok is manifested “in physical segregation of urban space through exclusive urban development projects,... [making] it difficult for social cohesion to develop at the local level.” This lack of social cohesion undermines the city’s capacity to build collective resilience, such as by developing institutions that can address the challenges faced by people of different socioeconomic backgrounds.

The author points out that “spatial segregation also makes it difficult to provide adequate and efficient public services, making the poor even more vulnerable.” As the richest segments of society opt for “club goods within their walls in suburban locations instead of supporting provision of public goods,” the city’s administration struggles to find resources to build collective resilience via adequate public services for everyone in the city. The property tax system, based on the real estate value as assessed in 1978, is a perfect example of how today’s laws benefit the few; as a result of this law, the wealthy contribute very little to local government revenue.

In addition to inequality, Ratanawaraha explores other sources of fragility, including rapid

demographic changes (e.g., aging, rural migration, and the influx of foreign workers) and uncontrolled urban development. He also explores the “virtual” segregation of digital politics; more people in Bangkok now live not only in gated communities and exclusive condos but also in “self-reinforcing information cocoons” in which they only talk and listen to people with the same political views.

Ratanawaraha concludes that reducing socioeconomic and spatial inequalities should be at the heart of efforts to build resilience. He suggests a set of principles to inform transformative policies in Bangkok. These include recognizing spatial inequality in urban planning, shifting urban planning toward a scenario-based approach, implementing regional-level policies that reach beyond the city administration, developing a better system to capture the value of land ownership, passing legislation that supports more inclusive land use, and building community-level institutions that encourage civic participation regardless of socioeconomic background.

DHAKA

Inequality also emerges as a key source of fragility in the Dhaka case study by Imtiaz Ahmed. The state of public toilets and waste management are just two examples that show the skewed development of the city in favor of the elite. Another is the transportation system. Every day more than 100 new, mostly private cars worsen the city’s already abysmal traffic, while the road system remains largely the same. Moreover, these private cars take up 39 percent of the road space but transport less than 9 percent of the passengers. For the author, these dysfunctions are the product of what he labels “developmentality,” which, in pushing for relentless growth, contributes to “maldevelopment” and chaos.

Maldevelopment has also affected the physical security of Dhaka’s inhabitants. For example, the ill-conceived policy of using embankments to control floods and the commercially-motivated encroachment into flood flow zones and river foreshores have destroyed 80 percent of the capital’s conservable floodplains and water retention zones, making it more vulnerable to flooding. Political violence, extrajudicial killings, and the politicization of religion, with growing “religio-patriarchal intolerance,” affect the daily life

of the city. The power of mastans, organized groups of thugs who live off of extortion, ransoms, and contract killing, is not challenged due to widespread impunity and corruption. Violence against women is a particular scourge of the city.

Dhaka's fragility is aggravated by a highly dysfunctional governance system, with a proliferation of agencies that have overlapping jurisdictions and do not coordinate. This is similar to Bangkok, where inefficiency in governance and urban planning stems in large part from the division of authority and responsibility to manage the city among multiple agencies. What is more worrisome, writes Ahmed, is that Dhaka's political leadership does not feel the urgency of reform. To accommodate partisan politics, the city administration has been divided in two, making the provision of services more cumbersome and increasing opportunities for corruption and political patronage.

According to Ahmed, resilience in Dhaka can be built only by addressing four interrelated drivers: political, economic, health, and aesthetic. Politically, the city needs to have greater autonomy from national politics and have its own legislative body. Connected to the first driver, economic reform is needed to guarantee Dhaka's financial autonomy from partisan politics. Third, investments are needed to improve public and urban health, including a better drainage system, greater access to drinking water, and public toilets. Finally, the author advocates for the "beautification" of the city, beginning with enhancing public toilets, recovering wetlands, and adding green spaces and gardens. "A resilient city requires an aesthetic mind," he writes.

MUMBAI

The Mumbai case study by Chandrani Sarma and Amitendu Palit explores one of the most complex manifestations of urban fragility in the modern world. With an estimated 21 million people, Mumbai is the sixth largest metropolitan area in the world. Mumbai's geography and history compound its various sources of fragility; surrounded by water on three sides, which makes its border porous, Mumbai has a history of organized crime, communal violence, and terrorism. The "underworld" of Mumbai, the authors write, adds a dimension of physical insecurity to the city, which remains a hub for drug and

human trafficking and prostitution. Rates of rape and property crime are among the highest in India.

One of Mumbai's main sources of fragility is its continually growing population; more than 43 percent of inhabitants are migrants. This growth strains the city's capacity to provide public services. Education is a case in point: while Mumbai has a relatively high literacy rate, it does not have enough secondary schools to absorb children exiting primary schools. This shortage of secondary schools impedes students' progress to higher education, and many of the resulting dropouts become involved in illegal activities.

Slums of varying size and population are present in all but one of Mumbai's twenty-four wards. Housing is a massive challenge in Mumbai; the city's limited geographical space has led to the highest real estate prices in the developing world. Rising prices have perpetuated the growth of slums, where about 40 percent of Mumbai's population lives. The living conditions in most of these slums remain appalling. An estimated one in twenty people (about 420,000 in total) are compelled to defecate in open areas. Garbage disposal and waste management are almost nonexistent, and insufficient drainage systems lead to the mixing of sewage and water flows during seasonal flooding. The rates of building collapse and accidental fires are among the highest in the country, leading to huge losses of life and property.

However, the rehabilitation of slums remains a major challenge. Many residents do not want to move, and forced relocation is too politically costly. Slum dwellers hold considerable voting and economic power; Dharavi, the largest slum, with a population of 1 million, has an annual economic output of about \$0.6-1 billion.

The structure of government in Mumbai constitutes another source of fragility. Administration of the city is split between the Municipal Corporation of Greater Mumbai and several state-level agencies, whose overlapping jurisdictions generate institutional conflicts and rivalries between competing political parties. Corruption, particularly among lower-ranking public officials, adds to the problem.

Authorities are not oblivious to these challenges and have worked to address some of them. Two new rapid transit systems, a new network of roads and bridges, and flood mitigation initiatives are among the projects mentioned by the authors.

However, while it is encouraging that the local authorities are taking action, “the scale and complexity of the city’s problems require efforts that might be beyond the capacity of municipal authorities and civic agencies.” To build resilience in Mumbai, the authors advocate large-scale interventions, with coordinated efforts from multiple stakeholders: local authorities, businesses, political parties, the state and national governments, regulatory agencies, and civil society organizations. According to the authors, Mumbai “needs to be treated as a charter city: a mini-state within a state...that runs on different rules than the rest of the country.”

LAGOS

Almost as populous as Mumbai, Lagos is another example of the complexity of managing megacities. The Lagos State government administers the greater Lagos metropolitan area, which comprises sixteen municipalities and fifty-seven local government areas. For Jane Lumumba, the author of the Lagos case study, this governance system is a major source of fragility in Nigeria’s economic capital. Despite Nigeria’s federal system, the state government has taken over most services that local governments are best placed to deliver and does not provide adequate fiscal transfers for local governments to fulfill the functions they retain. In addition, state-level parastatals work in silos, leading to duplication and inefficiencies.

Lagos’s dysfunctional governance system has weakened the city’s capacity to respond to its booming population, another source of fragility. Migrants to the city, mostly from rural areas, add pressure to its crippled infrastructure and its capacity to provide basic public services. Electricity is irregular, forcing households and small business to rely on expensive generators, and the government only provides water to 10 percent of the city. Access to health services and education in informal settlements is minimal. According to one estimate, Lagos faces a housing shortage of 5 million units.

A third source of fragility that Lumumba highlights is the socio-spatial segregation of Lagos, an issue shared with every city in this study. Lagos’s spatial segregation is a legacy of the colonial period, when the city was designed to keep the European settlers away from the local population. This has contributed to large pockets of urban poor left to

fend for themselves, generating an informal economy and underemployment.

This spatial socioeconomic divide may also aggravate violence and crime. Although lower than other cities in Nigeria, 18 percent of Lagos’s inhabitants reported being the victim of a crime in 2013. Criminal activities are mainly carried out by so-called “area boys,” unemployed youth engaged in petty crime and often serving local gang bosses, or *ogas*. Kidnapping for ransom is still a cause of concern, especially for women and wealthy residents. Ethnic and political violence are also sources of insecurity, with elites using gangs “to exercise political violence and competition through brutal assassinations and armed clashes.”

Lumumba acknowledges the commendable work of former state Governor Babatunde Fashola in managing one of the world’s largest and most complex cities. Improved public transportation and traffic management, cleaner streets, and a broadened tax base are among the administration’s achievements. Public-private partnerships have bridged funding gaps and provided the technical capacity to improve service delivery. A key example was the launching in 2008 of the Bus Rapid Transit system, the first of its type in sub-Saharan Africa.

At the same time, those who can afford to do so have resorted to club goods, as in the other cities examined. Neighborhood associations pool money to pay for private security, centralized boreholes for water, generators, and garbage removal services. In the wealthier neighborhoods of Lagos, private developers have built fully serviced estates with private water, electricity, and drainage infrastructure. The Eko Atlantic Development, a new city being constructed on reclaimed land, is another example of a public-private partnership. While it could address coastal erosion and flooding and transform Lagos into the largest financial center in Africa, this development could also emerge as an exclusive hub for the wealthy, exacerbating socio-spatial segregation in the long term.

Lumumba concludes that, despite its multifaceted fragility, Lagos presents a model case for urban resilience in the twenty-first century. Development of public-private partnerships, movement toward locally-generated revenue, and improved basic services are among the recent achievements of Lagos. Two broad recommenda-

tions to build the city's resilience emerge from the author's analysis. First, governance reforms need to bring about a leaner, more decentralized administrative system. Second, the city government needs to adopt a more dynamic approach to urban planning that focuses on predicting upcoming trends, reducing socio-spatial segregation, and addressing the environmental, economic, and security vulnerabilities of all the city's inhabitants.

MEDELLÍN

In describing the cycles of violence that have periodically affected Medellín, Colombia's second largest city, over the past forty years, Heidi Gómez suggests that linking violence exclusively to drug trafficking and illegal armed groups is to take a reductionist perspective that ignores other factors, including social and economic inequality. Inequality thus emerges again as a source of fragility that "contradicts dominant narratives about Medellín as a successful model for urban development and innovation." Physical insecurity and extreme poverty mainly affect the marginalized communities inhabiting the hillsides of the city, some of them victims of forced displacement from rural areas. More than 26,000 people in Medellín still live without electricity, running water, or sewage facilities.

Medellín has been recognized as a service-oriented city and pioneer of "social urbanism," a policy centered on integrating marginalized communities into the city center. Security policies and coexistence have become benchmarks for crime control in Medellín, as is common in other countries and cities facing similar problems. These, combined with a set of institutional practices, have brought major changes in the quality of life over the past decade.

Gómez notes, however, that these improvements are concentrated in particular areas of the city. "Local authorities' social analysis was limited, leading to the marginalization and continued segregation of populations living in informal settlements, principally on the city's periphery." She points to the need to build upon the existing resilience of communities by engaging local knowledge and experience in designing and implementing solutions. "Generating higher levels

of popular participation in solving complex problems is not to replace the state's responsibility as a guarantor of its citizens' safety but to recognize the ability of community members to build safe and prosperous urban environments," writes Gómez. This suggests the importance of "collective resilience," as raised in the Bangkok case, where fast-paced urbanization, socioeconomic diversity, and spatial segregation make it difficult to build resilience across communities and spread the benefits of collective action equally.

In Medellín, neighborhoods that experienced high levels of violence and continue to experience marginalization and poverty have become interesting laboratories to study local resilience. Gómez mentions initiatives to restore community values, establish public meeting spaces, guarantee safety for women, and offer alternatives to youth affected by urban conflict. She emphasizes community engagement as a way to transform those conditions that create fragility in Medellín, including inequality and marginalization.

Building Resilient Urban Environments

This study of five cities on three continents cannot compete with large-sample analysis of urban fragility, but it seeks to add qualitative inputs to the vast existing literature on how to build resilient cities. It is reassuring that what emerges from these cases is consistent with much of the research undertaken so far. For example, the Rockefeller Foundation's 100 Resilient Cities initiative identified seven features of resilient cities: reflectiveness, resourcefulness, robustness, redundancy, flexibility, inclusiveness, and integration.³ The authors of this report, explicitly or implicitly, highlight the relevance of many of these features in their cases, particularly resourcefulness, flexibility, inclusiveness, and integration.

These cases also support recent understandings of urban resilience as a nonlinear concept. When it comes to urban socio-ecological systems, bouncing back to the original state might not always be welcome, for example if this would simply perpetuate spatial segregation. The emphasis, therefore, is on the capacity of a system "to reorganize while

3 Rockefeller Foundation, "City Resilience Framework," November 2014, available at www.rockefellerfoundation.org/report/city-resilience-framework-2/.

undergoing change.”⁴ The contributions in this report make clear that urban resilience is about not just the ability to withstand exposure to shocks but also, as Ratanawaraha says, “about transforming from one state to another that is more efficient, equitable, and sustainable.” Resilience is the desired outcome of a transition out of fragility. That said, some of the authors provide a less enthusiastic assessment of recent improvements in cities like Lagos and Medellín. To the authors, the segregation at the root of these cities’ fragility has not yet been addressed.

The lessons emerging from these five cases and the analyses of the authors suggest a number of considerations that can help guide policymakers in developing multifaceted approaches to strengthen urban resilience in the areas of planning, governance, decision making, and policy development.

ADOPT DYNAMIC AND SCENARIO-BASED URBAN PLANNING

To make cities adaptable and agile, city planners should take into account internal and external dynamics affecting a city’s vulnerability and develop scenarios to prepare for different potential futures. As Ratanawaraha notes in the Bangkok case study, this planning practice increases the ability of cities to absorb change and disturbance while continuing to perform basic functions.⁵ Through this dynamic approach, city planners can prepare the urban system to deal with internal and external shocks, such as a rapid increase in population, rise in sea level, economic shock, increase in crime, housing shortage, or unemployment. This approach requires an integrative framework for decision making based on both technical knowledge and collective social value. Scenario-based planning also allows for a long-term perspective, independent from changes in government leadership.

OPTIMIZE URBAN GOVERNANCE

This dynamic planning capacity needs to be matched by adequate urban governance. All the authors focus on the need for leaner government structures and clearer lines of authority and

responsibility. They identify five mutually reinforcing trends that complicate urban governance: (1) urban areas are expanding across administrative boundaries, which fragments government management and revenue sources; (2) governing bodies are proliferating, which causes their jurisdictions to overlap; (3) bureaucratic turf and national politics create institutional competition and incentives to operate in silos; (4) central authorities do not match the tasks they delegate to local authorities with adequate resources; and (5) wealthy segments of the population prefer club goods, investing within their walls instead of supporting public goods.

New models of metropolitan governance are required to address administrative fragmentation. For example, Sarma and Palit advocate treating Mumbai as a charter city, like Dubai or Hong Kong, with different rules than the rest of the country. They also advocate engaging multiple stakeholders in urban governance, including local authorities, businesses, political parties, state and national governments, regulatory agencies, and civil society organizations. Other strategies could include consolidating authorities or strengthening local municipalities via decentralization. Ahmed suggests a dedicated legislative body for Dhaka to free the city from national political rivalries. Other authors suggest improving service delivery by focusing on providing collective services rather than club goods, passing new laws to enlarge the tax base of local authorities, and linking national-to-local resource transfers to the improvement of local service delivery.

ADD VOICES TO DECISION MAKING

Even in cities where recent improvements have been praised, such as Lagos and Medellín, more can be learned from the livelihood strategies and experiences of residents of fragile neighborhoods, who often show extraordinary resilience. There is a pattern of solidarity in these fragile communities that has not been sufficiently explored. Any policy attempting to build collective resilience should capitalize on this existing solidarity.

Gómez urges Medellín’s administration to include more community-based voices in decision

⁴ A broadly accepted definition describes resilience as “the capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks.” See Brian Walker, C. S. Holling, Stephen R. Carpenter, and Ann Kinzig, “Resilience, Adaptability and Transformability in Social-Ecological Systems,” *Ecology and Society* 9 no. 2 (2004), p. 5.

⁵ Ayda Eyardin, “Resilience Thinking for Planning,” in *Resilience Thinking in Urban Planning*, edited by Ayda Eyardin and Tuna Tasan-Kok (Springer, 2013).

making to respond to the challenges of urban governance. More effective urban governance requires a more sophisticated relationship between authorities and citizens. As she reminds us, greater community participation in addressing complex problems should not be a substitute for the state's responsibility as ultimate provider of safety and public services but should aim to recognize communities' existing knowledge and capacity to build resilience.

This suggests, for example, a gender-sensitive approach to empowering women in local leadership within and beyond their communities. Globally, less than 15 percent of mayors are women.⁶ Effective governance should also include the voices of youth and minorities. In some cities, like Bangkok, social media can be a powerful tool to include these voices, but it also risks replicating spatial segregation online. Nonetheless, social media and urban youth activism can help strengthen the “social contract” by promoting better social policies, citizen participation, and accountability in neighborhoods where formal mechanisms, such as elections, have failed.

FOCUS ON SPATIAL SEGREGATION

Urban fragility and resilience are not uniformly distributed across socioeconomic groups. Because socioeconomic factors are often correlated with physical location, there is a spatial dimension to urban fragility. The unequal distribution of fragility across a city amplifies the social cleavages that emerge when urbanization brings together people with different background.⁷

Some critics are justly concerned with the tendency to build safe and fully serviced neighborhoods for the wealthy few at the expense of the urban poor. The authors in this report are no exception. Inclusiveness must extend beyond the decision-making processes described above; it should be viewed as a central principle to urban resilience.

The most far-reaching and sustainable policies to promote safer and more prosperous cities involve investing in the elimination of physical barriers to social cohesion in order to overcome spatial segregation and enhance mobility. This could include investing in public goods like reliable public transportation; open public spaces, such as parks and community meeting areas; pro-poor social policies, such as conditional cash transfer programs; infrastructure, like public toilets; and what Ahmed describes in the Dhaka case as “beautification.” Urban environments also have an important, albeit complex, relationship with crime and violence. Safe spaces for public gathering, street lights, and public transportation can all increase both actual and perceived physical security in marginalized communities.

Conclusion

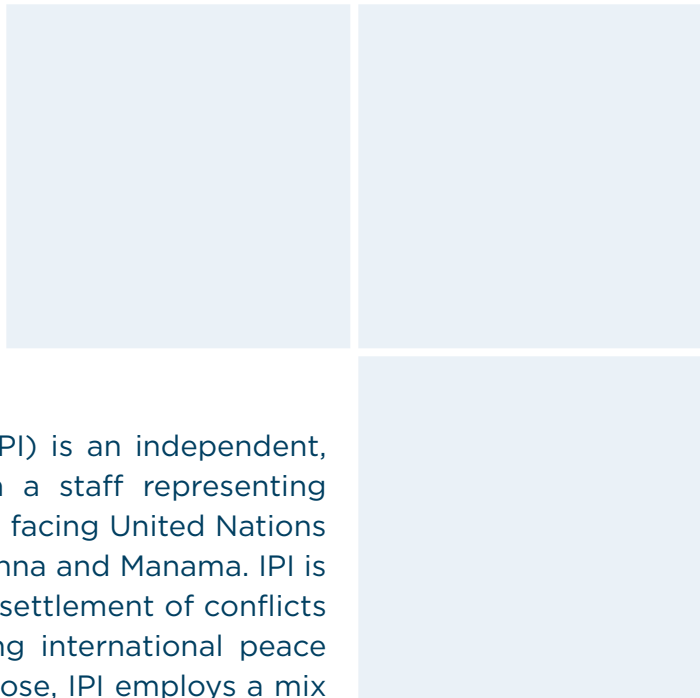
Cities are not destined to be fragile. As Sarma and Palit remind us in the Mumbai case, “Several metropolitan cities have succeeded in overcoming fragility. New York and London had colossal slums in the nineteenth and twentieth centuries, and in the 1960s Singapore suffered from riots among different racial groups and extreme housing shortages, forcing many to live in squatter camps.” There is nothing preordained about urban fragility.

Urban environments are being recast as sites of engagement whose fast-paced change, density, vulnerability, and unpredictability demand new paradigms of intervention.⁸ If, individually, human beings are inherently resourceful and resilient, the real stress test for urban resilience is whether the poor and the marginalized have access to the key features of resilient systems. Because shocks are increasingly large, fast, and complex, no wall will be high enough to keep them out. In today's hyper-connected societies, collective resilience is the prerequisite for individual resilience.

6 UN Statistics Division, *The World's Women 2010: Trends and Statistics* (United Nations, 2010).

7 Dennis Rodgers and Bruce O'Neill called this phenomenon “infrastructural violence.” See Dennis Rodgers and Bruce O'Neill, “Infrastructural Violence: Introduction to the Special Issue,” *Ethnography* 13, no. 4 (2012).

8 Stephen Graham, ed., *Cities, War and Terrorism: Towards an Urban Geopolitics* (Oxford: Wiley-Blackwell Publishing, 2004).



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