The Challenge of an Urban World

An Opportunity for U.S. Foreign Assistance

International Housing Coalition

Housing for All
This White Paper describes the challenges and opportunities that urbanization is posing for countries in the developing world and argues that greater attention and resources need to be focused on urban areas. It highlights successful urban interventions and makes the case that now is time for the U.S. to play a leadership role in redirecting some foreign aid investments to urban areas, particularly to address the issue of slums. The White Paper was prepared based on a comprehensive review of secondary sources, project documents, and interviews with international development experts, policy makers, and program implementers.

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The IHC is a non-profit advocacy organization based in Washington D.C. that supports “Housing for All” and seeks to raise the priority of improving the living conditions of slum dwellers on the international development agenda. Basic housing (shelter) and increased access to water and sanitation, education and health services are critical to effective urban development and slum improvement. In order to improve basic housing everywhere, including in slums, the IHC supports the basic principles of private property rights, secure tenure, effective title systems, and efficient and equitable housing finance systems—all essential elements to economic growth, civic stability, and democratic values.

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I hope that you find this Paper informative. The IHC welcomes your comments on this Paper and your support for our future work.

Peter Kimm
Chairman of the Board
International Housing Coalition
For the first time in history, more people now live in cities than in the countryside. Virtually all world population growth for at least the next fifty years will be in cities, and the cities of the developing world will absorb most of this increase. This phenomenon should be viewed positively because there is general agreement that urbanization is fundamental to sustained national economic growth — indeed no country has achieved higher income status without greater urbanization. However, rapid urbanization is often an overwhelming management and financial challenge for developing country governments.

The increasingly concentrated poverty in urban slums is a consequence of urbanization. One billion people now live in slums in the developing world and that number is sure to increase. The promise and challenges of 21st century urbanization combine to offer an unprecedented opportunity to leverage U.S. foreign assistance in order to alleviate poverty and generate economic growth. To do so adequately, the U.S. will need a better foreign assistance structure with an increased urban development focus. Urban programs are a proven, effective, and efficient use of limited foreign assistance resources.

Urbanization: Opportunities and Challenges

U.S. foreign aid can help the developing world cope with the challenges and take advantage of the opportunities presented by urbanization.

■ Economic Growth. Cities can be engines of economic growth for developing countries. The population density and economies of scale characteristic of urban areas attract entrepreneurs, facilitate business and investment, and provide markets. In slums, vibrant informal economies offer a springboard for future development. Urban growth, in turn, drives rural development by way of remittances and demand for rural products.

■ Urban Poverty and Slums. Slum dwellers contend with horrifically crowded and sub-standard housing, unsafe drinking water, a lack of basic sanitation, insecure tenure, and a lack of access to education and health services. Targeted, comprehensive urban assistance programs can greatly improve these conditions and help the urban poor lift themselves out of poverty.

■ Urban Investment. The rapid growth of cities is overwhelming urban infrastructure and service systems, undermining potential for efficiency and growth to the jeopardy of inhabitants both poor and otherwise. Better development planning and urban management, increased infrastructure investment, and improved service provision are needed to make cities more efficient for businesses and better places to live.

■ Global Threats. Improving slum conditions is in the U.S. national interest because it can help prevent and control the spread of disease and lower the probability of social instability. Urban investments and effective planning can mitigate the effects of climate change on developing country cities and prevent a dramatic future increase in their greenhouse gas emissions.
Successful Urban Assistance

Comprehensive urban programs are urgently needed. They can build on current, successful programs and the roots of a new U.S. foreign assistance direction that is already emerging.

- **Urgently Needed.** Now is the time to shape urbanization while it is occurring and before existing conditions deteriorate and new slums are established. Further, the impact of a global recession combined with the global youth bulge, has the power to generate huge numbers of disaffected, unemployed urban youth. Urban development programs can mitigate these risks.

- **Tested Best Practices.** Assistance programs are most successful when they address the challenges of urbanization through a carefully coordinated, multi-sector approach. Many of the most successful programs share three essential characteristics, they: involve citizens substantively; utilize economic incentives to shape behavior effectively; and tackle urban challenges comprehensively.

- **Increased Recognition.** The U.S. Congress, the American people, donors, private foundations and developing countries themselves are giving increased attention to urbanization and slums. Urban assistance, like all American foreign assistance, has been handicapped by outdated legislation, the lack of an overall strategy, and restrictive funding mechanisms that stovepipe programs into specific sectors; but that may be changing. Urbanization should be a prime consideration in re-structuring U.S. foreign assistance.

An Approach that Will Work

U.S. Government leadership is essential to foster effective, coordinated urban assistance.

- **Leadership.** The United States should build a larger, multi-sector urban assistance program. USAID can play a leadership role within the U.S. government by developing an urban strategy, refocusing resources on urban investments, as well as strengthening its cadre of urban development experts.

- **An Effective Assistance Strategy.** Four complementary building blocks should be the foundation of a new long-term urban development strategy that reaches across sectors, facilitates donor coordination, and engages the private sector:
  1. **Policy Reform.** Key elements include decentralization of authorities and resources from national to municipal governments and reform of national policies and regulations. Donors should help build the technical capacity of national and local governments to strengthen policy development and implementation.
  2. **Urban Planning.** Comprehensive city development plans should be developed, with technical assistance when necessary, and serve as a means to coordinate donor- and private sector-funded projects.
  3. **Host Country Ownership.** Development strategies should be demand driven with full national government support, municipal leadership, and substantial community participation.
  4. **Mobilization of Resources and Collaboration.** Raising adequate resources will require investments by developing country governments, the private sector, and international donors, and collaboration in their design and implementation.
Section 1.

Introduction

1. Introduction

Ever increasing urbanization is a defining characteristic of the 21st century. Inexorable rapid urban growth will shape the future of countries in the developing world, particularly in Africa and Asia. Greater population density and economies of scale give cities and towns enormous efficiency advantages that can attract businesses and provide markets, with the informal sector making important contributions to urban economic vitality. Numerous micro- and small enterprises hold the potential to become larger businesses. And the urban poor are a resourceful and energetic source of productive labor and potential purchasing power.

Urban economic growth can, in turn, facilitate country-wide development by way of remittances, new markets, and increased human capital. Greater urban productivity means higher family incomes and therefore greater demand for products from the countryside—in short, a larger national economic pie. Over the long term, cities will be the principal source of future economic development.

But along with the promise come great challenges. Increased urbanization brings with it increasingly concentrated poverty in urban slums. One billion people now live in slums in the developing world and that number is sure to increase. Slum dwellers face unsafe drinking water, inadequate sanitation and drainage, poor hygiene, and horrifically crowded and structurally unstable housing. All of these have dire consequences for health, particularly the health of children.

Rapid urbanization is often an overwhelming challenge for developing country governments. Slums result from a toxic combination of weak governance, underinvestment in basic infrastructure, poor planning to accommodate growth, unrealistic high standards for residential neighborhoods, infrastructure standards that are unaffordable for the poor, and insufficient public transportation that limits access to employment. These are the challenges that must be overcome if the promise of greater productivity and higher living standards is to be realized.

Left unaddressed, urban slums in developing countries threaten both national and international security, health, and environmental sustainability. Poverty, extreme income inequality, and high rates of unemployment, particularly among the younger segments of society, can create an environment of real and perceived lack of opportunity in which social unrest and political radicalism can flourish. Deplorable living conditions coupled with high population density in slums pose a direct threat to public health as well as increase the vulnerability of urban populations to the effects of climate change. Poorly managed urban growth can thus lead to deteriorating health and environmental conditions, with serious implications for national government stability and international security.

The promise and the challenges of 21st century urbanization combine to offer an unprecedented opportunity to leverage foreign assistance in order to alleviate poverty and generate economic growth. But to succeed in such an effort, there is no time to lose. Urbanization is occurring at a rapid pace and cannot be reversed. The right kind of aid programs can address the challenges of urbanization and leverage international assistance investment as never before.

Improving living conditions and livelihood opportunities in urban areas is the right thing to do. But this approach is not only beneficial to slum dwellers. It can also produce great economic and social benefits for the country and the world as a whole, by increasing international trade, mitigating climate change, and reducing the risk of violence, terrorism, pandemics and other health threats.

This White Paper makes the case for U.S. foreign assistance to better design and increase the scale of urban investments. Targeted urban programs have already been tried and have helped to demonstrate what works and what does not. The United States has a strong record of successful urban activities. It has a leadership legacy on which to build a broader multilateral policy approach to assistance provision.

Yet, in recent decades, U.S. leadership on urban issues has waned. Further, urban assistance, like all American foreign assistance, has been handicapped by outdated legislation, the lack of an overall strategy (e.g. assistance is administered disjointedly by some 28 agencies), and restrictive funding mechanisms that stove-pipe programs into specific sectors and limit multi-sector approaches. Now, however, this may be changing. The U.S. Congress has passed and funded the Paul Simon Water for the Poor Act and has initiated the process of re-writing the Foreign Assistance Act of 1961. In addition, Congress is considering several new pieces of legislation focused on slums and poverty alleviation.

Section Two reviews the arguments for cities as potential economic growth engines, including attention to the vitality of the informal sector. Section Three paints a picture of the appalling living conditions that now characterize developing countries’ slums and the constraints on productive activity from poor urban management and underinvestment in infrastructure. Section Four reviews the rich experience from poor urban management and underinvestment in
Section 2.

Cities as Economic Growth Engines

2. Cities as Economic Growth Engines

In 2008, for the first time, a majority of the world’s people lived in cities. This ongoing broad demographic transformation is nowhere more dramatic than in the developing world. And the urbanization drumbeat is projected to continue until at least mid-century. UN HABITAT estimates that the urban population in developing countries will increase from 1.9 billion in 2000 to more than 3.9 billion in 2030, equivalent to 70 million people per year.

Higher income countries are already very urbanized, with 74 percent of the population living in cities. Hence, heightened urbanization will result substantially from increased urbanization in the developing world, with the share of the population living in cities anticipated to rise from 44 to 67 percent by 2050. Africa has the lowest current level of urbanization (38 percent), but it has the highest urban growth rate (3.3 percent per year between 2000 and 2005), which is expected to remain high. Kabul, Afghanistan is the most rapidly growing city in the world. Secondary cities rather than the largest cities will grow the most.

**Economies of Scale**

Urbanization is increasing at this rapid pace for a simple reason. Cities account for most of a country’s economic growth—so the benefit of the households who live there and the firms that operate in them. The record is clear that cities are more efficient at generating economic product than rural areas.

But what accounts for this greater efficiency? The answer, put simply, is the gains that arise from the concentration of economic activity. These economies of scale or agglomeration effects can be classified into three types: (1) those generated internally by firms (i.e., firms can set up large enough plants to reap large internal production efficiency gains); (2) those shared by firms in the same industry (i.e., the most rapidly growing city in the world. Secondary cities enough plants to reap large internal production efficiency gains); (3) those generated internally by firms (i.e., firms can set up large enough plants to reap large internal production efficiency gains); and (3) those more generally available to producers in a large urban area (transportation links, efficient finance, specialized legal services, etc.).

Cities foster economies of scale of all three types, realize efficiencies, and drive economic development. Higher cities promote greater economies while longer distances between activities work against such economies. It is no accident that extremely high commercial and residential densities characterize the great cities of all regions. The largest cities in developing and transition countries account for a disproportionate share of national GDP, and more highly urbanized countries produce more GDP per capita. Globally, the largest 100 cities produce nearly 25 percent of the world’s GDP.

Examples of ways that urban agglomerations of various sizes produce growth include market towns that facilitate economies of scale in marketing and distributing agricultural products and inputs, medium-sized cities that provide shared-resources for manufacturing industries, and very large cities that provide a wide range of facilities and services to business, government, and service providers such as schools and universities, and hospitals.

**Globally, the largest 100 cities produce nearly 25 percent of the world’s GDP**

Just how important are the economies of scale from urbanization? The World Bank has rendered its verdict: “No country has grown to middle income without urbanization. None has grown to high income without vibrant cities.”

**Implications for Country-wide Growth**

Urban economic growth can, in turn, facilitate country-wide development. As urban centers prosper, they provide new opportunities for those whose education levels and skills do not allow them access to the formal sector. The informal economy is particularly important for women, who, because of domestic responsibilities and/or local customs, are often able to work only in or close to their homes. As C.H. Prahalad has said in his seminal work, *The Fortune at the Bottom of the Pyramid*: “If we stop thinking about the poor as victims or as a burden and start recognizing them as resilient and creative entrepreneurs and value-conscious consumers, a whole new world of opportunity will open up.”

The urban poor also represent a potentially huge latent market for goods and services. The “bottom of the pyramid” market in Asia (including the Middle East), for example, is estimated to represent 83 percent of the region’s population and 42 percent of its aggregate purchasing power; in sub-Saharan Africa it represents 71 percent of aggregate purchasing power.

Until recently, many developing countries ignored the informal sector, considering it illegal and something to be eradicated. However, some have now begun to recognize it as an important sector of the economy where innovation can flourish. In Kenya, for example, informal manufacturing enterprises (jua kali) have been promoted as an export industry and political leaders recognize the importance of these enterprises to national economic growth.

It is true that the impacts of the recent worldwide economic downturn and the concomitant shrinking of international trade will be felt hardest by the most economically vulnerable in developing countries, typically those working in the informal sector. The global financial crisis affects both urban and rural populations, but the urban poor are particularly vulnerable given their heavy reliance on the informal economy, inability to rely on their own food production, and vulnerability to a sudden drop in income without a social safety net for protection. But it is also true that this increased relative hardship will be temporary and that urban growth will once again dominate in increasing a country’s productivity and living standards.
Section 3. Challenges in Addressing Urban Growth and Housing Needs
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To unleash the full capacity of the developing world’s urban areas for growth, a multitude of challenges now inhibiting their economic potential and their capacity to provide a healthy living environment for their inhabitants must be realistically faced and tackled. These include a significant shortage of decent affordable housing, especially for the poor; the abysmal housing conditions and the horrific physical environment in which many of the urban poor live, work, and raise their children; lack of a clean and adequate water supply; underinvestment in transportation; deteriorating natural environments; negative impacts of global climate change; and social instability — all of which reduce the efficiency with which developing cities function. This section briefly reviews each of these areas of need. We start, however, with a review of the characteristics of the urban poor population in developing countries, defined as those who live in what the UN identifies as slums (i.e., areas with the following five shelter deficits: lack of access to improved water, lack of access to sanitation, nondurable housing, insufficient living area, and insecurity of tenure).

The Scale of Urban Poverty

One-third of all urban residents in low- and middle-income countries live in poverty, according to the latest estimates. Although the poor are currently concentrated in rural areas in all regions except Latin America, an increasing share of the poor is urban, with the percentage of poor persons in urban populations differing dramatically among regions (see Table 1). The highest rates by a very large margin are in South Asia (76 percent, the vast majority of them in Indian cities) and Sub-Saharan Africa (68 percent).

The degree of income inequality within urban areas also differs dramatically by region. African and Latin American cities have greater inequality among their citizens than do cities in Asia and the Middle East-North African region. Higher poverty rates and greater degrees of inequality mean that those in the lower rungs of the economic ladder are living in extremely difficult conditions. In other words, a high incidence of low incomes correlates with parallel shortcomings in a whole range of dimensions—housing, water and sanitation, health, and education.

Not all the urban poor live in slums, but most do; nor are all people living in slums poor—some may find the economic advantages outweigh the hardships—but most are. About 1 billion people in developing countries live in slums. This share also varies sharply by region, as the following list makes clear: Sub-Saharan Africa (72 percent in 2001), Asia Pacific (43), Latin America and Caribbean (32), Middle East/North Africa (30). In no region is the incidence below 30 percent. Little wonder that the UN Millennium Development Goals call for a significant improvement in the lives of at least 100 million slum dwellers by the year 2020.

Housing in the Developing World

Decent shelter is fundamental to physical and psychological well-being and the social stability of communities. Yet the inexorable urbanization of the developing world is creating a massive shortage of affordable housing, especially for low income families. Lack of housing options for the growing urban population has driven even increasing numbers into informal shelter in the burgeoning slums in many cities, large and small. In many of Africa’s cities and towns, for example, less than ten percent of the population lives in formal sector housing. In India, recent estimates indicate an urban housing shortage of almost 25 million units in 2007, which is expected to grow to 26.5 million by 2012. Formal housing production has simply not kept pace with urban population growth in most cities of the developing world.

Housing construction is also a major component of the economies of both industrialized and developing countries. Housing is a major source of employment, especially in lower income countries where it can employ large numbers of relatively unskilled laborers and it generates additional jobs in locally-based ancillary industries such as furniture, equipment and supplies. Yet formal sector housing production in most developing countries meets just a small fraction of demand.

Housing conditions in developing countries for those who cannot afford formal sector solutions vary greatly, from fairly well-constructed sizeable dwellings of durable materials with many amenities (although still not legal) to decrepit shacks and hovels in the slums built of wood, mud and scrap materials. UN HABITAT estimated that in 2003, 133 million people in cities of developing regions lived in housing that lacked finished floor materials, with the largest percentage (73 percent) in Asia (mostly south Asia). In some of the poorer cities of Asia and Africa over half of the housing is made of non-permanent materials of various kinds.

Overcrowding is also a serious issue in many cities of the developing world. UN-HABITAT recommends a minimum of 75 square feet per person to ensure sufficient privacy and good health but estimates that more than 20 percent of the world’s urban population lives in dwellings with less space, with two-thirds of the total in Asia. In some of the poorer cities of Asia and Africa, more than 40 percent of the population lives in insufficient living space and in larger cities in Africa and Asia, such as Addis Ababa, Kampala, Dhaka, Karachi and Uttar Bator, the percentage is higher than 50 percent. The situation is comparatively better in Latin America.

A third serious housing problem in the cities of many developing countries is the lack of secure tenure for most informal sector housing. The precariousness of their legal status and the possibility of eviction make families living in the informal sector reluctant to invest in improvements to their housing despite the obvious benefits to the quality of life that would accrue. Renters, who constitute a significant percentage of slum dwellers, have even less security in their living situation than those who own their homes.

One in every four children in the Embakasi slum in Nairobi, Kenya die before their fifth birthday, compared to one in every 125 in the U.S.

Conditions in the Slums

Urban slum dwellers live, raise families, and work in conditions that are almost literally unimaginable for any inhabitants of the developed world who have not witnessed those conditions in person.

One dramatic measure of the dismal nature of slum conditions is the health of resident children. For example, the prevalence of children’s diseases in various locations in Kenya underscores the consequences of dirty water, nonexistent or primitive sanitation, and flimsy and overcrowded housing (see Table 2). Nairobi’s informal settlements generally...

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Table 1. Urban Poverty Estimates, 2002

<table>
<thead>
<tr>
<th>Region (World Bank definition)</th>
<th>Percent Urban Population Below Poverty $2 per day*</th>
<th>Percent of All Poor Living in Urban Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asia-Pacific</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Europe-Central Asia</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Latin America</td>
<td>28</td>
<td>66</td>
</tr>
<tr>
<td>Middle East-North Africa</td>
<td>12</td>
<td>29</td>
</tr>
<tr>
<td>South Asia</td>
<td>76</td>
<td>25</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>68</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>26</td>
</tr>
</tbody>
</table>


a. $2 cut-off adjusted for urban-rural differences in prices.
Table 2. Infant Mortality Rates and Diarrhea Prevalence in Kenya by Location

<table>
<thead>
<tr>
<th>Location</th>
<th>Infant mortality rate&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Under Five Mortality Rate&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Percent Prevalence of Diarrhea in Children Under 5&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya</td>
<td>74</td>
<td>112</td>
<td>3</td>
</tr>
<tr>
<td>Rural Kenya</td>
<td>76</td>
<td>113</td>
<td>3</td>
</tr>
<tr>
<td>Urban Kenya, excl. Nairobi</td>
<td>57</td>
<td>84</td>
<td>2</td>
</tr>
<tr>
<td>Nairobi—all areas</td>
<td>39</td>
<td>62</td>
<td>3</td>
</tr>
<tr>
<td>&gt;informal settlements</td>
<td>91</td>
<td>151</td>
<td>11</td>
</tr>
<tr>
<td>&gt;&gt;Kibera settlement</td>
<td>106</td>
<td>187</td>
<td>10</td>
</tr>
<tr>
<td>&gt;&gt;Embakasi settlement</td>
<td>164</td>
<td>254</td>
<td>9</td>
</tr>
</tbody>
</table>

<sup>a</sup> per 1,000 births  
<sup>b</sup> In the two weeks prior to the interview  

and especially the two largest and worst slums (Kibera and Embakasi), have much higher rates of infant and under-five mortality than rural areas or for Nairobi as a whole. One in every four children in the Embakasi settlement, for example, dies before reaching the age of five, compared with slightly more than one in ten in rural areas and slightly more than one in 20 in Nairobi overall. These rates compare with a one in 125 mortality rate for children under five in the United States.

Housing conditions in most slums are appalling, with serious repercussions for the health, safety and well-being of the residents. Extreme crowding is the norm, with the typical slum family inhabiting a one-room structure of less than 300 sq. ft., often partitioned only by curtains. Indoor toilet facilities and individual house water connections are rare. In such close quarters, diseases spread quickly. Lack of privacy also exposes children to sexual relations of family members at a very young age, contributing to the early onset of sexual activity found in many slum communities. This is reinforced by high levels of prostitution resulting from a lack of economic opportunities for many young slum girls, which leads in turn to very high levels of unwanted pregnancies and sexually transmitted diseases (STDs) in the slums, including HIV/AIDS.

Cooking in the slums, particularly in Sub-Saharan Africa, is often done with solid fuels such as bio-mass and charcoal. This causes indoor air pollution, leading to high rates of respiratory disease. Indoor air pollution is estimated to be responsible for between 2.7 and 2.8 million deaths worldwide annually, mostly in developing countries. UN-HABITAT cites a recent study that shows housing deprivation can lead to a 25 percent greater risk of disability or severe health across a life span, especially if exposure to poor housing occurs in childhood.

The location of slums is another concern. Slums tend to be either in the city center or in peri-urban areas where land is more readily available, but far from employment opportunities. Slum dwellers in the city center often occupy land unsuitable for other purposes, such as zones subject to flooding and areas adjacent to environmentally hazardous land uses, railroad tracks, and landfills. Without adequate storm drainage during the rainy season, low-lying streets, pathways, and residences are subject to frequent flooding, while communities on slopes are subject to landslides and erosion of any makeshift barriers they may construct. A case in point — almost every other year the 55,000 slum dwellers living in Asuncion, Paraguay’s river flood plain are driven from their homes.

Stresses caused by such harsh living conditions lead to major lifestyle illnesses, in the form of high and increasing incidence of alcohol and drug use, cardiovascular disease, diabetes, depression, and domestic abuse. The WHO estimates that by 2030, the proportion of the disease burden represented by non-communicable diseases will increase from 44 to 54 percent in low- and middle-income countries, and that the poor in urban slums will suffer the most.

Uncertain property rights and a lack of tenant rights contribute to poor housing conditions and add to the difficult living conditions in slums. In informal urban settlements where many dwellings are owner-occupied, residents have only weak rights to the land they occupy and thus are at risk of eviction. Owners, who believe they are safe from eviction, are more likely to incrementally build and upgrade over time by adding or improving walls, roofs, and floors or making other improvements. In specific cases, such as Kibera in Nairobi, occupants rent from landlords who often have legal claims on the land. Some landlords own hundreds of badly maintained dwellings and have little incentive to invest in them. For their tenants, making improvements is risky because of the lack of formal leases or other tenure security. In both cases, uncertainty discourages residents from incrementally improving their housing. Especially in Sub-Saharan Africa much of land occupied without rights is government owned, meaning it could be comparatively easily transferred to the occupants.

Water and Sanitation

Another defining characteristic of slum conditions is a lack of access to basic services such as education, health facilities, clean water, and sanitation facilities – basic citizen rights. Access to a clean and adequate supply of water is a fundamental human necessity. Yet in 2004, over one billion people in the world, almost all in developing countries, still lacked access to “improved” sources of drinking water. Millennium Development Goal (MDG) Target 7c challenges the world to reduce the number of people without sustainable access to safe drinking water by half by 2015. If the past is any guide, this goal will be extremely difficult to meet. Despite serious efforts to address the problem, for example, between 1990 and 2004 the number of people without such access decreased by less than 120 million.

Given existing trends, by 2015 the number of people in urban areas without such access will actually increase to 240 million. Almost all of this increase will be in developing countries.4 Many municipal systems in developing countries suffer from enormous water losses caused by broken pipes and water piracy, restricting water availability only to short periods at certain times of day.4 Broken pipes also lead to extremely high levels of microbial contamination and hazardous levels of chemicals such as arsenic and fluoride.

It is the slum-dwelling poor, of course, who suffer disproportionately from poor quality and limited availability of chemicals such as arsenic and fluoride.

One billion people in the world lack access to clean water.
of clean water. Although about 70 percent of households in the cities of developing countries have access to clean water, just 40 percent do in the slums. Indeed, most urban slum residents do not enjoy water connections at the household level, as already mentioned, forcing them to purchase water from itinerant vendors at prices almost five times the average price of water from the municipal system. As a result, slum dwellers average less than half the water use of the average user in the same cities, exacerbating already poor hygienic practices.

Sanitation conditions are even more daunting. In 2004, in Sub-Saharan Africa, just 53 percent of urban residents were covered by “improved” sanitation services, compared with 63 percent in southern Asia, and 86 percent in Latin America and the Caribbean. And coverage is generally substantially lower in the slums than in urban areas as a whole (Table 3). In Sub-Saharan Africa, for example, where conditions are worst, only 19 percent of households in informal settlements have water connections and a mere 7 percent have sewerage services.

And the available global statistics for sanitation are misleading. Coverage is almost certainly over-reported in urban areas, as well. Overall, transportation problems are worst where transportation services are unable to meet the population’s needs, often a result of prices insufficient to cover costs and inefficient operations by public providers. Para-transit’s poor safety record results from a combination of aggressive driving behavior, over-crowding, and poorly maintained vehicles — a combination that causes scores of deaths and thousands of injuries to passengers, pedestrians, and other motorists. The poor suffer from urban transport systems in three ways — long commute times, relatively expensive transportation costs, and a lack of safety — with the form of discrimination depending on where they live. In very high density central cities poor commuters often do not use public transport systems because they walk or bike to work, but their commute may put them in physical danger and contribute further to congestion. Chinese commuters, for example, traditionally relied on bicycles. But pedestrians and bikers now struggle to find a place on the crowded streets, with separated lanes for them being very rare. In peri-urban areas, in contrast, the poor suffer from urban transport systems by being long commute times, relatively expensive transportation costs, and a lack of safety — with the form of discrimination depending on where they live. In very high density central cities poor commuters often do not use public transport systems because they walk or bike to work, but their commute may put them in physical danger and contribute further to congestion. Chinese commuters, for example, traditionally relied on bicycles. But pedestrians and bikers now struggle to find a place on the crowded streets, with separated lanes for them being very rare. In peri-urban areas, in contrast, the poor suffer from urban transport systems by being

Finally, the storm and sanitary sewer systems of cities in many developing countries, particularly in informal settlements, have insufficient capacity or function so poorly that much of the industrial, commercial, and household wastewater and storm water run-off is not captured (to say nothing of usefully insufficient waste-water treatment capacity), especially during rainy seasons. Poor drainage leads to frequent flooding and to pools of stagnant, polluted water that function as vectors for water borne diseases such as malaria and cholera. 3

Transportation
Anyone who has visited Bangkok, Cairo, Lagos or Mexico City—or has traversed a mid-size city in India or Pakistan—has seen first-hand the results of underinvestment in road and mass transit infrastructure and poor traffic management. The scale of transport problems in adverse effects on mobility, economic efficiency, and the environment are greatest in the mega-cities. But medium size cities suffer as well. Overall, transportation problems are worst where population growth outpaces ahead of economic growth—which includes all Sub-Saharan Africa and many Latin American countries. 7

Transportation problems fall into three types: service deficiencies due to congestion, non-congestion deficiencies, and inequitably transportation services that systematically discriminate against definable citizen groups. Congestion means long commute times, which reduces worker productivity and increases costs to businesses for moving goods within cities. One-way average commute times in Jakarta, Kinshasa, Lagos, and Manila are over 75 minutes. Survey data for Mexico City show that ten percent of workers spend 2.5 hours on their one-way commute. In comparison, New York’s commute time, the highest in the United States, averaged 38 minutes one-way in 2003.

Non-congestion problems take many forms. One is long wait times for public transportation. Another is para-transit safety. Para-transit is passenger service by privately-operated vans on fixed routes; operators are usually licensed by the municipality. Cities have turned to para-transit when public transit services are unable to meet the population’s needs, often a result of prices insufficient to cover costs and inefficient operations by public providers. Para-transit’s poor safety record results from a combination of aggressive driving behavior, over-crowding, and poorly maintained vehicles — a combination that causes scores of deaths and thousands of injuries to passengers, pedestrians, and other motorists.

The poor suffer from urban transport systems in three ways — long commute times, relatively expensive transportation costs, and a lack of safety — with the form of discrimination depending on where they live. In very high density central cities poor commuters often do not use public transport systems because they walk or bike to work, but their commute may put them in physical danger and contribute further to congestion. Chinese commuters, for example, traditionally relied on bicycles. But pedestrians and bikers now struggle to find a place on the crowded streets, with separated lanes for them being very rare. In peri-urban areas, in contrast, the poor suffer from urban transport systems by being

Table 3. Water and Sewerage in Informal Settlements, 1998 (percentages)

<table>
<thead>
<tr>
<th>Region</th>
<th>Water Connection</th>
<th>Sewerage Service</th>
<th>Access to Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS Africa</td>
<td>19.1</td>
<td>7.4</td>
<td>40.0</td>
</tr>
<tr>
<td>N. Africa/Middle East</td>
<td>35.7</td>
<td>21.5</td>
<td>42.7</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>38.3</td>
<td>7.4</td>
<td>89.1</td>
</tr>
<tr>
<td>Lat. Am. &amp; Caribbean</td>
<td>57.9</td>
<td>30.3</td>
<td>66.8</td>
</tr>
<tr>
<td>All Developing Regions</td>
<td>37.2</td>
<td>19.8</td>
<td>57.6</td>
</tr>
</tbody>
</table>

much worse as economic growth raises household incomes and permits a higher incidence of automobile ownership. It takes little imagination to contemplate the extreme adverse greenhouse consequences of future massive car fleets in China and India alone.

Environment
Urbanization by its very nature alters the earth’s surface and changes the natural environment. The environment of many developing world cities is deteriorating in part because of poor urban planning and regulation, and in part because insufficient human and financial resources are being marshaled to keep the demands of increased urbanization in balance with the capacity of the natural environment to support it.

UN-HABITAT structures the debate around the “burdens” on the environment posed by urbanization as follows. Construction activity required for industrial, commercial and residential development alters the natural landscape. The concentration of production and consumption activities (e.g., energy demands) in urban areas, including industry and motorized transport, can lead to degradation of the environment and ecology if not adequately managed and mitigated. Such effects include air pollution, urban ground and surface water extraction and contamination, urban waste dumping, and the expansion of built-up areas and its effect on natural areas, agriculture and biodiversity. Improper disposal and treatment of liquid wastes into lakes, rivers and coastal waters are yet another increasing problem. Many cities in developing countries do a very poor job collecting solid waste, with disastrous consequences for the urban environment. In Cairo, Egypt for example, just one-third of the solid waste is collected and processed; in Freetown, Sierra Leone the proportion is between 35 and 55 percent.

The health impacts of poor solid waste management are substantial. Particularly in slum neighborhoods, poor collection and disposal results in piles of solid waste building up in public spaces, vacant lots, and even on streets and back yards, frequently clogging drainage and sewer systems. This attracts disease-carrying insects and pests, which in turn cause cholera, diarrhea, and dysentery, especially in children. A 2001 survey in Benin showed that the prevalence of diarrhea in children under five was 18.5 percent in households where garbage is dumped in the yard versus seven percent in households where garbage is collected. Similarly, in Ethiopia, the prevalence of acute respiratory infections is six times higher in children living in households where the waste is uncollected than among children whose household waste is regularly collected.

The sheer economic cost of environmental degradation must be added to its human impacts. The Asian Development Bank estimates that neglect of the environment is costing Asian economies an average of five percent of GDP. China may be losing as much as ten percent of its national income to pollution and India five to six percent. The direct cost of water and air pollution in India may approach $10 billion annually. Yet the environmental budgets of many Asian countries are actually shrinking.

On a global scale, low- and moderate-income people in the cities of the developing world have very little impact on environmental degradation. They generate almost no waste or greenhouse gases, and use few products with high ecological impacts or that generate hazardous wastes. Yet they are the ones who disproportionately bear the consequences of such degradation, as they suffer from huge deficits in environmental infrastructure and have less capacity to afford preventive or palliative measures, such as air conditioning for poor air quality and clean water for proper hygiene.

Global Climate Change
The evidence is indisputable that the temperature of the earth has risen by between 0.74 and 1.8º Centigrade over the past century; estimates are that it will continue to increase by between 1.8 and 4º C over the course of the next. Human activity is responsible for at least part of the increase. One of the leading causes of this “greenhouse effect” is the amount of carbon dioxide emitted into the atmosphere through the burning of fossil fuels—coal, gas and oil.

Rich cities in the developed world emit substantially higher levels per capita of greenhouse gases than do cities in the developing world. But as the developing world grows economically, its contributions to global climate change will inevitably increase. Should current trends continue, greenhouse gas emissions will drive declines in agricultural production and increases in heat waves, droughts, flooding, biodiversity loss, disease, and soil erosion. Abrupt and large-scale climate change could lead to an average loss of five to ten percent in global GDP, with developing countries suffering in excess of ten percent of GDP. Again, it is the poor in developing countries who bear the brunt of environmental degradation caused by climate change, as they most often live in sites that are vulnerable to flooding and erosion.

Last, but hardly least, rising ocean water levels from global warming will cause massive destruction and displacement. Nearly 300 million urban residents live today in the low elevation coastal zone (less than ten meters above sea level), putting them at immediate risk from rising sea levels. It is important to recognize that urbanization actually has positive impacts on the global climate. Greater use of public transit and higher urban densities achieved in multifamily housing can lead to less energy consumption per capita than
in rural areas and suburbs. Greater urbanization can also help to preserve natural areas in the countryside that can act as carbon sinks and help to sustain biodiversity.

**Social Instability**
The deplorable slum living conditions just described—aggravated by lack of employment and low social status—foster stress and low self-esteem generally and especially for disaffected youth. These problems manifest themselves in a variety of ways. One is violence. A study of three Rio de Janeiro _favelas_ over a 30-year period found a broad improvement in the economic standing of those remaining in these areas and of the one-third of original families who had moved to better neighborhoods. But the increased violence in the _favelas_ had caused some families to relocate and had sharply reduced the social capital of those who remained because they were afraid to be on the streets. In nine slums in Colombia and Guatemala, crime and violence are viewed as the primary problem, more important than unstable infrastructure or unemployment.

Not surprisingly, slum conditions can lead to protests and sometimes riots. In 2005 in South Africa, about 900 protests were reported in urban slums, for example, of which half turned violent; the year 2008 witnessed further disturbances, this time aimed at foreign immigrants. Youth disaffection and related conditions, including oppressive regimes and militant religious leaders, create fertile conditions for recruiting persons into terrorist organizations, leading a number of scholars to call for improving slums and related conditions to address a root cause of terrorism.

**The Drag on Economic Efficiency**
With the very real human suffering already portrayed, it is easy to lose sight of the economic consequences of the kinds of conditions recounted in this section. Urban mismanagement has powerful negative effects on the efficiency with which a city functions and in turn its growth. Three dimensions make the case.

First, consider the effects of an unreliable or insufficient electricity supply. In Lagos, 92 percent of enterprises recently surveyed have had to invest in their own generators; in Indonesia the figure is 65 percent; in Thailand, where reliability is much greater, the figure is six percent. Capacity shortages in the Yemeni cities of Aden and Mukalla have forced firms to resort to self-supply and have restricted economic growth. Obviously, the competitiveness of affected firms is inevitably reduced.

The second dimension is the loss of women's productive time in fetching water in areas with limited water sources. This problem is widely recognized and the health impacts of such drudgery are documented. Forty-seven percent of women living in Kumasi, Ghana slums, for example, allocate two to three hours per day to fetching water (traveling to sources, queuing, and returning); 27 percent spend four hours or more. A major portion of potentially productive time is thus simply lost.

The third dimension is delays in firms' acquisition of land needed for expansion. In Mozambique, firms pay on average $18,000 in processing fees for land, and in Nigeria they must re-register land to use it as collateral, a process that can take up to two years and cost 15 percent of the property's value in official fees (not counting bribes).
Section 4.

Programs That Work


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4. Programs That Work

In many metropolises the problems are so great and growing so rapidly that the task of achieving significant improvement in the urban fabric is truly daunting. Is there sufficient accumulated experience with successful programs that one can be confident that more resources can be effectively used? The answer is an emphatic “yes,” as the following cases illustrate. Unfortunately, only a modest share of urban development projects has been properly evaluated. We selected these particular examples because they illustrate success and they are comparatively well-documented.

**Slum Upgrading and Prevention**

An essential first step in developing an approach to the proliferation of slums is simply raising the awareness of a country’s and a city’s political leadership through accurate information. National and city governments often turn a “blind eye” to the concerns of slum dwellers until social stability appears threatened or a health problem begins to spread throughout the general populace. A good example of the results of such heightened awareness is Egypt, where in the early 1990s the government became convinced that the slum problem was becoming a national emergency. In response it created a special budget for slum upgrading.

Since then, the country has reduced the proportion of slum dwellers by more than 22 percent. Similarly, Sri Lanka has reduced slum prevalence from 25 percent to less than 11 percent over the past 18 years, after adopting a series of national level pro-poor reforms.

There are three main approaches to alleviating slum conditions: (1) upgrading existing sites; (2) preventing new slum growth; and (3) relocating residents to better sites (some projects of this type are underway but proven cases have not been documented). The most appropriate approach, or combination of approaches, is context dependent. The following case studies describe how each can be done effectively.

**Upgrading**

Despite the complexity of the challenge, a number of successful slum upgrading examples and approaches can serve as best practices:

- **Indonesia.** The World Bank supported the Kampung Improvement Program (KIP) over a 14-year period from 1974-88. For a cost averaging from $23 per person in smaller cities to $118 in Jakarta, almost four million kampung residents in 11 cities benefited from improved footpaths, roads and drainage, garbage bins and collection vehicles, safe drinking water through public taps, public washing and toilet facilities, neighborhood health clinics, and primary school buildings. There was noticeable improvement in the living conditions of the kampung and the investments yielded an economic rate of return of 12 percent, even over a useful life of five years. In addition, as a result of the program, the kampung residents became better educated, household size declined, and employment rates increased.

- **Morocco.** Based on a quarter century of experience in addressing a growing problem of slums and informal settlements, in 2004 the Government of Morocco initiated its “Cities without Slums” program with a goal of eliminating or transforming slum housing for over 280,000 families in over 80 cities by 2010. The national program has strong political support. It uses a combination of in situ upgrading and demolition of substandard housing, with provision of replacement/ resettlement housing, creation of new subsidized, serviced housing sites on public land, establishment of a guarantee fund for “social” housing and creation of tax incentives for builders to create low cost apartments. Although it is a national program, the interventions are carried out by local authorities in close consultation with neighborhood residents. Through 2008, 140,000 households had benefited from the program.

- **Nigeria.** In 2005, the Lagos mega-city of over 11 million people, 70 percent of whom live in slums, adopted a new citywide approach to slum upgrading after witnessing the limited impact of previous “top down” efforts. A $200 million credit from the IDA is supporting a seven-year upgrading program in nine (of 42) slum communities that includes the upgrading of roads and footpaths, installation of public toilets, drilling of water taps, the construction and rehabilitation of education and health facilities and skill-based training for youth. Community participation is central to the program’s design. The aggregate estimated economic rate of return for the infrastructure improvements is 17 percent, and a 75 percent increase in garbage collection by private operators has already been realized. The effort is supported by a new affordable housing policy (to provide private mortgages at ten percent) and a new land policy designed to improve institutional efficiency in land documentation, creating an up-to-date land registry and formally recognizing a right of occupation for those who have illegally settled on government land.

- **Mexico.** The national government has a large-scale effort, Por Firma, under way to replace dirt with cement floors in slum dwellings. By 2007, 300,000 floors had been replaced out of a total initial stock of three million units with dirt floors, at a cost of about $150 per unit. To be eligible occupants must prove unit ownership. The incentive to obtain essential documentation is the possibility of receiving the benefits. A careful impact evaluation documents striking positive results on young children’s health: a 78 percent reduction in parasitic infestations, 49 percent reduction in diarrhea, 81 percent reduction in anemia, and 36-96 percent improvement in cognitive development. Adult welfare has also increased as measured by increased satisfaction with their housing and quality of life, as well as significantly lower rates of depression and perceived stress.

- **Peru.** An impact evaluation of the effect of Peru’s nationwide program distributing titles to urban squatters on public land found that investment in housing renovations and improvements associated with land titling increased 68 percent in the four years following title receipt.

- **Mexico.** Cemex, the leading Mexican cement producer, has gotten directly involved in housing construction by targeting its Patrimonio Hoy program to low and middle income families that are building their units one room at a time. Cemex allows households to sign on to a 70 week program in which they make weekly payments in exchange for scheduled deliveries of cement at key intervals in the construction process. Prices are fixed when the contract is signed and technical assistance is available. Savings are on the order of 35 percent compared with other construction options. The program is fully commercial and Cemex has expanded it into other countries where it operates.

Most public interventions that improve land security or improve infrastructure produce the types of positive investment effects just noted for titling and are often facilitated and expanded by microfinance loans. USAID has played a major role in promoting such micro lending through technical assistance, direct funding, and the Development Credit Authority (DCA) guarantee program, some of which goes to support lending for incremental housing improvements.

**Prevention**

Slum prevention is at least as important as upgrading and clearly more cost effective. Planning for the inevitable growth of the urban population is key, as shown in Kyrgyzstan by the municipality of Bishkek’s quick and effective channeling of post-Soviet Union rural-to-urban migrants into laid out subdivisions that initially lacked public services but were ready to receive them. Another example is cities in El Salvador that have been able largely to prevent the formation of new slums through good planning and timely investments in transportation that provides decent access to peri-urban locations. Access to secure land plots—provided by municipalities or private developers—is key to encouraging the type of incremental housing construction by which the majority of the urban poor attain decent housing.
The process can be accelerated, as can slum upgrading, with access to micro finance that permits use of higher quality materials each time as improvement is made.

Water and Sanitation

High urban densities are a particular blessing for water and sanitation interventions, as innovative solutions can reach far more people than they can in rural areas and municipal services can be provided much more cost effectively.

Examples of successful programs demonstrate that, over time, increased and well-directed investment and improvements in policy, regulation (including community oversight), and utility operations and management, can reverse the current trend of increasing numbers of urban dwellers lacking adequate water and sanitation.

The following examples of effective interventions are particularly noteworthy:

- **India.** Beginning in 1988, an alliance of three Indian NGOs—the Society for the Promotion of Area Resource centers (SPARC), the National Slum Dwellers Federation (NSDF) and Mahila Milan (“Women Together”)—supported urban community organizations that over a 12-year period designed, built, and now manage toilet blocks that serve over half a million low income urban dwellers in eight cities. Community toilets such as these typically cost less than $80 per seat. The design and construction of the toilet blocks by neighborhood associations have not only provided a much needed service to the residents but have also (a) demonstrated to municipal authorities the capacity and competence of urban poor organizations and (b) changed the nature of the relationship between community organizations and municipal authorities from one of clientism to one of partnership. The program’s success has also resulted in the national government providing a 50 percent subsidy for community toilet creation.

- **Senegal.** The nine-year (1995-2004) World Bank (IDA)-supported Senegal Water Project increased access to water services for 1.6 million people, expanding coverage from 74-81 percent of the urban population in 1996 to 98 percent in 2004, with household connections reaching 76 percent, which is the highest rate in Sub-Saharan Africa. Through an innovative public-private partnership, water losses (mostly from leakages) fell from 32 percent to less than 20 percent over the project’s life. It is estimated that improved water management and sanitation will cut the incidence of malaria in urban areas by 20 percent.

- **Argentina.** In 30 municipalities that participated in a program begun in the 1990s to privatize water supply, child mortality decreased by five to seven percent, with the largest gains in the poorest municipalities. Child mortality in those communities fell by 24 percent and the privatization is credited with preventing the deaths of 375 children per year.

- **Brazil.** Between 1990 and 1995, Porto Alegre’s innovative “participatory budgeting” process has increased the number of households served by the drinking water network from 400,000 to 465,000. More than 98 percent of the households are now connected to the network and the share of households connected to the sewer network almost doubled (from 46 to over 85 percent). From 1989 to 2000 leakage in the municipal water network decreased from 50 to 34 percent and the proportion of treated sewage rose from two to 27 percent.

- **Uganda.** Investments funded through an IDA-financed water and sanitation project in eleven small towns in Uganda drastically reduced the average price of water (from 100 to 25 shillings for a 20 liter jerr can), significantly reduced the time and distance required to fetch water, increased average consumption, and expanded urban coverage notably. The overall Economic Internal Rate of Return (EIRR) of the project was almost ten percent.

- **Pakistan.** An example of joint community-based / government sanitation program is in Orangi, a Karachi district of 1.2 million, begun in 1980, which financed sanitary latrines in almost all of the district’s 100,000 houses, underground sewers in the lanes and neighborhood collector sewers. Infant mortality in the project area fell from 130 per 1,000 live births to 37 from 1982-91, residents saved an average of $8.33 per month on curative health (ten percent of earnings) and property values increased by 30 percent due to the improvements in the lanes. A replication of the program in Faisalabad has reduced water and sanitation borne diseases by 60 percent.

Transportation

Two complementary policy sets are proven to work effectively to improve urban transport: (a) traffic and road-focused management, including regulation, enforcement, and institutional development; and, (b) public transportation infrastructure improvement, broadly defined to include related land use and transportation planning.

Management

Examples of improved management span a broad range. To provide positive incentives to use public transportation for those who would otherwise drive cars to work, a number of cities (including Seoul, Buenos Aires, Bangkok, and Manila among many others) have introduced premium express bus services at a higher price than the regular slower bus routes. Successful disincentives to reduce reliance on automobiles include a variety of congestion charges:

- **Korea.** In Seoul, tolls for use of the Namsan Tunnels that link downtown Seoul to the southern part of the city have cut peak period passenger volumes by 34 percent and increased average speed by 50 percent.

- **U.K.** In London, fees for private car access rights to the city center were implemented in 2001 with bus usage increasing by 40 percent.
Developing countries, lacking the sophisticated controls needed for London-type systems, impose restrictions based on odd-even license plate numbers and high parking fees. More generally car use is discouraged through levying high fuel taxes and license fees (some assessing higher fees on vehicles with larger motors or initial value). Another efficiency-enhancement measure is improved road maintenance. Severely deteriorated roads force drivers to carefully pick a path among large potholes, increasing travel times and causing damage to vehicles. The World Bank reports very high rates of return on its road repair investments.

Infrastructure Improvement

Among the concrete examples of effective infrastructure investment planning projects, some of the more impressive have developed bus rapid transit systems (BRT). These are now fairly common in major Latin American cities but have also been implemented in Jakarta and Chinese cities. BRT involves reserved lanes for buses and bus depots (instead of traditional bus stops), where passengers purchase tickets before boarding and where multiple buses can load and unload simultaneously.

Colombia. One of the better documented BRTs is Bogota’s, which began service in 2000. It uses a flat fare system (for single ticket for BRT and feeder bus rides), which favors the poor, who live farther from the city center. The combination of the bus depots, large articulated buses, and high ridership resulted in high productivity, with nearly 2,000 passengers per bus per day in 2001. Fatalities from traffic accidents involving buses were sharply cut, and users’ travel times fell by 32 percent.

Colombia. Medellin’s municipal government has built two cable car lines to provide sharply improved access to poor squatter communities located in the hills overlooking the city. In 2008 the second line opened, reaching four km into the hills to serve the Antioquia comuna. Metrocable has significantly cut both travel time and cost to the city center. Reported results show a very impressive increase in the economic integration with the city, including an employment surge for Antioquia residents.

Brazil. The experience of Curitiba, a city of 1.6 million, is particularly noteworthy because its BRT was part of a coherent, integrated, and consistently implemented master plan that has made the city quite livable and efficient. Industry is located in designated areas away from main settlement areas. And the system provides good access to poor families living in peri-urban settlements, thereby increasing their employment opportunities in the city center.

Environment

Unless the growth of urban areas is properly planned, governed, and managed, the quality of the air, the availability and purity of the water, the disposal and treatment of solid and liquid waste, the prudent use of energy, the safeguarding of green and open space and other qualities of the urban environment that contribute to health and well-being will become increasingly threatened. The good news is that successful intervention examples show how, over time, progress can be realized:

India. In 1994 the rapid spread of a plague outbreak during a flood in one of India’s filthiest cities, Surat, causing 58 deaths, was fueled by the city’s almost total neglect of solid waste management. Although the city collected 450 tons of garbage daily, this was less than half the amount generated. In response to the plague outbreak, the city mounted an intensive and comprehensive effort to improve solid waste collection, which included: private sector participation in garbage management; a public awareness campaign; a carefully planned grievance, redressal, monitoring and surveillance plan; and municipal capacity building. In just three years, the collection rate increased by 400 tons per day, which was 94 percent of the garbage generated, and Surat became one of India’s cleanest cities. In 2006, when another serious flood engulfed the city, the city and its residents were fully prepared and cleaned up from the storm before disease could set in.

Indonesia. PROPER (Program for Pollution Control, Evaluation and Rating) program, implemented from 1995-98, used the power of public disclosure of water pollution performance ratings of the country’s factories to substantially increase compliance with environmental regulations. In all, 187 factories in the first pilot group were classified into five performance levels from “gold” (clean technology, waste minimization, pollution prevention) to “black” (no pollution control and serious environmental damage). The results were widely circulated in the media. After 18 months, the number of noncompliant factories in the pilot group had dropped from 118 to 38 and pollution had been reduced by more than 40 percent.

Brazil. In 2003, the City of Sao Paulo approved a Strategic Master Plan for the protection and expansion of biodiversity. Since 2005, the city has doubled the number of traditional, riparian, and natural parks to 67 (also doubling the area covered), established two municipal “protected areas” covering 20 percent of the city’s territory, planted over 100,000 trees per year since 2006, and established a municipal environmental police force of 300 officers.
Successful shelter upgrading interventions seem to have three essential characteristics—significant citizen involvement; creative use of incentives; and a comprehensive approach that integrates investments across sectors.

Three Common Threads of Success

Many of the interventions just described share three essential characteristics: (1) significant citizen involvement, (2) the creative use of incentives, and (3) a comprehensive approach to shelter upgrading that integrates investments across sectors.

First, they include strong and substantive citizen involvement. The consensus is now overwhelming that citizen engagement with government in decisions on program design, prioritization of interventions, financing methods, and management and maintenance of facilities and infrastructure is critical to successful slum upgrading. Citizen engagement instills a sense of community ownership of the improvements, which is essential to their maintenance. Although slum dwellers and community leaders know first-hand and better than anyone else what challenges they face, they may not have the requisite skills or knowledge to make informed decisions on designing sustainable upgrading programs. UN-HABITAT suggests an “enabling approach,” whereby local governments “empower” the residents by helping them acquire needed training, and financial and management support. This leads to a more equal partnership between the government and the slum dwellers.17

Second, successful programs introduce new forms of economic incentives in structuring subsidies that reward certain behaviors more effectively (i.e., stronger targeting and greater cost effectiveness) than their predecessors. Examples in the cases cited above include the Mumbai toilet program and Piso Fírmom in Mexico. Mexico’s well-known Progresa program is another example of creative incentives whereby cash transfers to poor families are conditioned on children being in school and getting regular health check-ups.

Third, some of the most effective programs approached urban development in a broad, comprehensive way, providing combinations of improved shelter, transport access, infrastructure services, and health care. This suggests that a narrow, sector-specific approach is less successful. While the complex implementation environment of the urban context may at first seem daunting, the World Bank’s finding that urban development projects have higher success rates than other project types (at 88 percent over the 1992-2004 period19) provides impetus for action.

While this section has demonstrated that we know how to execute projects and programs, systemic policy challenges are major impediments to effective urban development, as discussed in the next section.
Section 5.

Development through Policy Reform

5. Development through Policy Reform

The examples just reviewed give confidence that discrete projects and programs across a range of sectors can be successfully executed in municipalities. The reality, however, is that such projects and programs often succeed in spite of the broad policy environment in which they are implemented, rather than being facilitated by it. Donors often circumvent these problems as best they can by demanding special operational arrangements for specific projects. For its slum upgrading projects, for example, the Inter-American Development Bank (IDB) requires that (a) the national government transfer project funds to the municipality; (b) procurements be done by the municipality following IDB regulations; (c) a qualified technical staff be in place for the project; and, (d) a single decision point be established for all project aspects (water, land, etc.), which is usually the municipal planning department. Not surprisingly, given the difficult policy environment, a continuing challenge for municipalities is in “scaling up” demonstration projects to activity levels that significantly mitigate the problems addressed.

This section addresses four policy blocks whose shortcomings often inhibit local governments from achieving more. Sometimes municipalities control these policies, but often the constraints are imposed by national legislation. Working with municipalities and national governments to design and implement better policies is the single most productive action the donor community can take to enhance the impact and sustainability of interventions. In its guidelines, the World Bank distinguishes among broad policy packages for specific locations by degree of urbanization (with each needing further adjustment for local circumstances):

■ Where urbanization is incipient (i.e., the place is largely rural) ensure key services are in place that benefit everyone regardless of location, i.e., a “spatially blind” policy package—the focus here is regulations regarding land and labor and social services as education, health, water and sanitation.

■ Where urbanization is advanced, add targeted interventions to address slums that will have almost certainly developed. The IDB’s view is that the policies and investments implemented at the previous two urbanization stages will not be sufficient by themselves to tackle such slums. Hence, geographically targeted improvements in water and sanitation, improving tenure security, expanding micro-loans programs to accelerate housing consolidation, and strengthening education and health services would all be pursued.

The IDB’s expert consensus is that effective policy coordination among national, state, and local governments is essential to implement the policies outlined. Is it realistic to expect such coordination? The discussion immediately below addresses this important question.

The Benefits of Decentralized Governance and Revenue Generation

Goverance

Municipal governments in developing countries are typically allocated a limited core set of service delivery responsibilities in areas like firefighting, refuse collection, parks, traffic management, local transit service, primary and secondary education and public health. Even for these core services they are reliant on higher levels of government for capital expenditures.

National ministries for water, transportation, and other types of infrastructure control the allocation of funds among local governments for new capital investment projects and often control their designs as well. Most countries lack a Ministry for Urban Development but even where one exists the key infrastructure agencies are not subordinate to it. In reality, the Ministry of Finance or Ministry of Planning is the key player in deciding on the type of urban investments funded. Typically, these ministries lack expertise to develop such programs—which probably creates a bias against comparatively complex transportation, slum upgrading, and other major infrastructure projects in the largest cities. The result is extreme fragmentation in municipal-national government relationships—relationships that are typically made even more complex by regional governments also having an active role.

Local governments’ efforts at comprehensive planning within such a fragmented framework are extremely complex and time consuming owing to the number of players involved and cities’ limited powers. The result too often is partially developed plans. The situation also creates the distinct possibility of a series of uncoordinated investments working against each other in determining a city’s future development. A clear policy improvement would streamline these intergovernmental relationships, with municipalities leading a comprehensive planning process that includes all relevant government agencies.

The local planning and implementation process itself often requires improvement along two dimensions. First, most cities’ boundaries include only a limited part of the metropolitan area, requiring planning to be done at the metropolitan level for investments in areas like transportation services, water supply, and pollution control that fundamentally effect the location of economic activity in space. Either through creation of metropolitan governments (by the national legislature) or by more sector-specific ad hoc solutions, design of metropolitan-wide solutions for areas like transportation is essential for effective interventions.

Second, local government agencies need to strengthen their capacity to plan and implement investment programs. Moreover, distinct agencies must break out of their silos and work more closely together for strong plans to result.

Care is also needed not to devolve responsibility before cities are ready to take on this role. Readiness requires both technical competence and a viable political agreement among city, regional, and national governments.

Donors can play a key capacity building role. In the meantime quicker action can be taken to simplify investment funds allocation (see below) and make them more dependable, thus simplifying the investment decision process.

The rewards to good planning can be large. Chinese cities’ aggressive infrastructure investments and facilitation of private housing construction, for example, largely prevented the creation of squatter communities. And Curitiba, Brazil has largely prevented the development of new informal settlements through good planning and timely investments in transport that provide good access to housing sites that are comparatively distant from most jobs.

Revenue Generation

Municipalities’ planning environment is complex at best, and the structure of government finances generally makes it worse. It is often the case that municipalities have little authority to raise revenue themselves, but rather rely on grants from and direct service provision by higher government levels. The following figure helps to illustrate


Section 5. Development through Policy Reform
that sub-national governments in most countries collect well under 20 or even as little as ten percent of total revenues and spend about the same amount. India and China with their federal systems are exceptions—although local governments in India spend under five percent of the total because of the dominance of state governments. Multiple problems stem from the current funding structure.

One such problem is the uncertainty of local government revenues. This is particularly severe for investment funds, but can be problematic even for basic operations. At least as important, such strong dependency on higher levels of government makes it impossible for local officials to be held accountable for service shortfalls because they can always blame problems on lack of funds from higher government levels. (To be fair, not all local governments take full advantage of the tax bases they do control, property taxes being the clearest case in point.)

An obvious solution is to permanently assign more revenue to local governments—either by granting them the right to levy taxes on a specific base and to set the tax rate or, alternatively, by allocating them a share of a national sales or income tax. However, with the additional resources comes increased responsibility for financing certain services and investments. Inequities arising from differences in localities’ tax bases can be compensated through equalization grants from the national government. Moreover, they do control, property taxes being the clearest case in point.

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Sub-national Governments' Share of Total Government Revenues and Expenditures

Based on IMF data; figures for late 1990s.

Source: Tanimura and Livings, More Urban Less Poor, Table A.11.

Sub-national Governments’ Share of Total Government Revenues and Expenditures

The multi-lateral development banks have a clear role to play, as do the principle bi-lateral agencies, such as the Overseas Private Investment Corporation (OPIC). OPIC can stimulate capital supply (by reducing financiers’ risks) for a range of tasks, from housing to infrastructure investments. The Millennium Challenge Corporation’s large grants could be well-used for urban investments, as could funds from the Senator Paul Simon Water for the Poor Act of 2005.

Redefining a country’s fiscal architecture can only be done by the national government and parliament. It is a demanding task, but it carries high rewards in accountability and service delivery efficiency.

Local Ownership

We know from the successful project examples cited earlier that deep citizen involvement is a key component for most urban initiatives. Such participation results in projects that meet users’ actual needs and are therefore more efficient and effective than top-down project development.

Community-based organizations (CBOs) are valuable participants in these efforts. Donors can help to strengthen CBOs and to facilitate the civil society-government interaction that is essential to sustainable development. For example, CBOs are full participants in the preparation of City Development Strategies in the Cities Alliance process, which have served successfully as the foundation for practical plans for city development in Yemen and in dozens of other cities in countries where the Alliance has worked. As laudable as these and other cases are, however, a broad consultative process is still not common. More broadly, there are additional constructive roles for CBOs. First, citizen monitoring of local government spending and revenue collection has been highly successful in increasing government accountability where operational. Second, mature CBOs under proper conditions can effectively deliver services. The Mumbai toilet campaign cited earlier is such an example. In an increasing number of cases, CBOs are operating at scale to help the poor. A well-known example is BRAC (Bangladesh Rural Advancement Committee) that now assists more poor people than does the national government. Strengthening NGOs is also important. In Africa, where local governments hardly function in smaller towns and cities, NGOs are the dominant provider of services in several sectors. Strengthening the capacity of both NGOs and governments will result in accelerated improvements, in part because NGOs’ close work with CBOs results in broad dissemination of better practices.

Often the approval of an elected city council is viewed by city governments as sufficient citizen input into the decision making process. In practice, of course, its members are little involved in developing plans for major projects, let alone those at the neighborhood level. They also tend to belong to the city’s elite. Inclusion of NGOs, CBOs, civil society, and other stakeholder groups representing the whole community should be standard practice in municipal planning and project development.

Opening up governance, increasing transparency and strengthening accountability are clearly tasks for local government and ones that have been assisted under USAID-supported local government democracy projects. As A. Shah and S. Shah state in, ‘‘The New Vision of Local Governance and the Evolving Role of Local Governments’’, ‘‘local governance is not just about providing a range of services but also about preserving the life and liberty of residents, creating space for democratic participation and civic dialogue, supporting market-led and environmentally sustainable development and facilitating outcomes that enrich the quality of life of residents. Americans can look from their own experience at the benefits from the empowerment of inner-city CBOs during President Johnson’s War on Poverty that launched the vast expansion of the African-American community’s political participation.”
Land Rights, Management, and Regulation
Getting land policies “right” is frequently cited as the single most important contributor to balanced and equitable urban development for all elements of the population. Several different policy elements come under this umbrella. Secure land tenure is the most often discussed. Confidence in land rights has been shown to affect the investment that poor households will make in their dwellings and informal businesses on their premises. Despite wide recognition of this point, progress in granting and registering secure land rights is slow in informal settlements and even in upscale areas in some countries—just ten percent of urban properties are registered in Egypt, for example. In part this is because the documentation required to prove plot ownership for a conventional title to be granted is too expensive and complicated for most informal settlement residents. It is generally recognized that a range of less costly intermediate instruments can serve well, as has been successfully demonstrated in countries as diverse as Kenya and Bolivia. Buckley and Kalarickal, in their 2006 publication, Thirty Years of World Bank Shelter Lending: What Have We Learned? list the following examples: declarations of possession and future use rights in Colombia; housing permits in francophone Sub-Saharan Africa; certificates of comfort in Trinidad and Tobago; credit contracts in Bolivia; certificates of rights in Botswana; concession to the real right to use in Brazil; community land trusts in Kenya; temporary occupation licenses in India and Kenya; communal ownership in South Africa; and, land rentals in Thailand.

Land management and regulation are also critically important. One component is land use zoning, particularly a system that operates flexibly to accommodate necessary changes in land use in central areas as the city develops. As access to the center becomes more valuable, increased population densities in the same formal neighborhoods are striking. Amman, Jordan, for example, has undergone such transformations over the past 50 years. Efficient development of housing for the poor requires realistic standards for rights-of-ways, pavement standards, plot sizes, construction materials, and utility services so that dwellings can conform to the rules in a way that is affordable to most families. Finally, affordable fees for registration and other real estate transactions are key to achieving widespread adoption of property registration and the reporting of accurate sales prices. For instance, if fees are computed as a percentage of the price and the rates are high, there exist strong incentives to underreport values. Some of these policies, e.g., zoning rules, are generally under local control. In contrast, in many countries property registration requirements and fees are set at the national level, making it difficult for reforming municipal governments to improve policies independently. It is encouraging that national governments are increasingly recognizing the impediments caused by high fees—Egypt cut its registration fees dramatically in 2006, for example, and Rwanda did so in 2008.

The Challenge of an Urban World
An Opportunity for U.S. Foreign Assistance

Section 6.
The Time to Act Is Now

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6. The Time to Act Is Now

The case for working with developing nations to improve their cities as places to do business and to live is strong and clear. The opportunities are great. Yet the U.S. devotes comparatively little of its development resources to urban areas (current data are lacking and donors’ definitions of urban expenditures vary widely, preventing accurate quantitative benchmarking). As has been well said by Tannerfeldt and Ljung in More Urban Less Poor:

Urban development is a rather neglected area in international development cooperation. The share of funds allocated is low, the donor agencies are not staffed for the purpose and there is insufficient understanding of the issues.

The Case for Greater U.S. Involvement in Urban Development

The case for redirecting and augmenting U.S. development resources to urban development is (a) moral, (b) urgent, (c) in our national interest and (d) cost effective. Such a redirection is also consistent with our recognized leadership role in urban programs in the past. The roots of a new direction are now beginning to take hold. It is the optimum time to help extend to helping the poorest urban residents to improve their children’s and their own health and well-being, by upgrading their housing and their own health and well-being, by upgrading their housing and living environment and gaining access to the health services and educational opportunities that are now closed to them.

Address an Urgent Task

Urbanization is occurring now and cannot be reversed. The next decades will see extraordinary city growth in developing nations. This is the only chance to get ahead of major urban problems and avoid prohibitively expensive, and perhaps ultimately unachievable, remedial actions. “It’s cheaper to manage it now than fix it later” has never been more true than it is in this case.

Of the 500,000 people who migrate to Delhi, India each year, it is estimated that fully 400,000 end up in slums. By 2015 Delhi will have a slum population of 10 million.

Improve the Lives of the Poor

Just as the U.S. is combating HIV-AIDS, malaria and other diseases in poor countries, its generosity should extend to helping the poorest urban residents to improve living conditions, which can potentially improve health and prolong life. Assistance in rationalizing urban policies and increasing infrastructure investments, by making cities more efficient for business, will generate jobs and raise the earnings of the poor. These advances, in turn, will enable urban poor people to improve their children’s and their own health and well-being, by upgrading their housing and living environment and gaining access to the health services and educational opportunities that are now closed to them.

Climate change alone is enough to make the case for urgency. The emissions of nearly all third-world cities are small compared to their developed country counterparts (China being a notable exception). But this will not last as urban growth continues. Now is the time to make the public transport investments and energy efficient infrastructure that will keep the greenhouse gas emissions of the developing world from exploding over the next half century, as rising incomes lead to massively increased auto fleets and durable goods ownership.

A reasonable estimate is that China and India alone will add 100 million cars to the road over the next 20–30 years. Efficient mass transit and clever traffic management will reduce the demand for new car owners, divert others from commuting to work by car and generally reduce auto usage.

China is already investing heavily in subway systems to mitigate the coming consequences of an auto surge. Acting today to prevent additional slum formation through extremely simple, properly transport-service “sub-divisions” to accommodate growth will also pay huge future dividends in lower infrastructure provision costs.

Serve U.S. National Interests

Infectious diseases respect no borders. Improving the health of urban residents decreases the risk that such diseases (for example, SARS and H1N1 [swine flu]) spread internationally. In addition, improvement in slum dwellers’ lives, especially those of disaffected youth, reduces tensions and lowers the probability of destructive civil strife and the need for costly UN and other “first world” military and reconstruction interventions. Productively engaged youth are less likely to join gangs and other anti-social organizations. Finally, more productive developing country cities generate higher household incomes which in turn generate demand for goods and services; direct investment, which generates profit for firms, including U.S. firms, is more likely to flow to efficient, more competitive locations.

Improve Aid Cost-Effectiveness

A multi-sector focus offers the opportunity to realize synergies among programs and break out of the sector programming straightjacket. Standard procedure now is for projects in each development intervention to be implemented independently. A focus on urban programming will use scarce resources more effectively by coordinating investments in utilities, transport, and other sectors.

Consider a program to create low-income subdivisions in peri-urban areas. Plots can be defined and the organizers are more likely to low to efficient, more competitive locations. Providing acceptable
Resources to Build On
Rebuild the U.S. Leadership Role
USAID was a recognized leader in urban programs in the past. Its network of Regional Housing and Urban Development Offices, active in the 1980s and early 1990s, was unmatched in terms of on-the-ground capacity. At the 1996 Habitat II Conference in Istanbul, for example, a number of USAID programs were cited as best practices. The time is right to reassert such leadership again, especially given new project-specific knowledge and additional resources on which to draw. Some current capacity remains on which to build, for example, the Development Credit Authority guarantee program. Additional resources include the strong program to provide wholesale sources of housing finance developed by the Overseas Private Investment Corporation (OPIC) in the past five years, and the Millennium Challenge Corporation’s (MCC) large infrastructure grants. The U.S. role can also be structured to be a genuine opportunity for multilateral cooperation, helping to reinvigorate past alliances and generate new collaborative efforts. These steps will ensure that America’s resources will be maximally leveraged.

Leverage the Already Emerging Roots of a New Direction
A host of recent developments makes now the time to seize the initiative, as the following list makes clear:

- A number of countries are thinking more strategically about urban development, including Uganda, Vietnam, Mongolia, Brazil, Turkey, Morocco, Chile and South Africa. Countries will, therefore, be receptive to a new urban thrust from the international community.
- The World Bank is refreshing its thinking, with a new urban policy statement due in October 2009.
- The Rockefeller and Gates Foundations and other funding sources are increasingly supporting new research on urbanization and urban development.
- UN-HABITAT’s Water and Sanitation Trust Fund is rapidly expanding its assistance to regional development banks to support project development and implementation.
- Change in the structure of the U.S. foreign assistance architecture is being considered and Congress is working on a new Foreign Assistance Act. The Initiating Foreign Assistance Reform Act of 2009 (HR.2139) has been introduced by Representatives Berman and Kirk.
- New relevant legislation has been introduced in Congress. The Paul Simon Water for the World Act (S.624) seeks to expand on the Water for the Poor Act and the Shelter, Land, and Urban Management (SLUM) Assistance Act (HR.1702) calls for the development of a U.S. urban strategy.

Revitalizing Urban Assistance: An Approach that Will Work
Four elements are essential to revitalizing urban programming in U.S. assistance: leadership, an effective approach, a strengthened cadre of urban development experts, and sharply increased coordination both within the United States government, with other donors, and with country governments.

Leadership
Assuming that USAID plays a leadership role in a newly unified development assistance structure, the Administrator must clearly articulate the importance of programs to improve economic efficiency and livability in developing countries’ cities. This should be reflected in policy documents and in budgetary allocations. He/she must also consistently reinforce this message by actively monitoring progress and establishing a dynamic process for transferring best practices—both from within USAID and outside (MCC, other USG agencies, multilaterals and bilateral, and major international NGOs)—to all involved.

An Effective Assistance Strategy
A new assistance approach must be adopted that uses metropolitan areas as the organizing device and a realistic five to ten year time frame. Urban investments tend to be complex and a realistic timeframe is essential to realize most benefits, which tend to occur at later stages in the investment process. MCC’s Compact implementation, constrained by the maximum five year Compact term, offers a lesson.

A promising approach would be to encourage USAID Mission Directors and others involved in country-level programming to consider moving along four complementary tracks.

(a) Policy Reform. Essential work is needed on fundamental policy reform of the type outlined in the previous section, to permit cities to act more decisively and at a higher activity scale (e.g., reallocation of authorities and revenues from national to municipal governments and streamlined land registration and regulations).

(b) Accomplishing such changes requires committed national and local government counterparts, greater technical expertise, and several years of hard work. But these reforms are the key to truly improved urban management.

(b) Urban Planning. Full participation in the formulation of a comprehensive city or metropolitan development plan is crucial. Cities Alliance has been the most active, working with citizen groups, local administrators and officials, business interests and others, sometimes with the CDS could be an organizing device for multiple donors, public and private, including international NGOs like Habitat for Humanity International, to participate in city development investments and related activities, as well as being the guide for future U.S. programming. Different donors could take the lead working with different cities or groups of cities (i.e., an “Adopt a City” approach). An important result of donors working together at the city level would be a heightened interest in achieving reforms to eliminate the main policy impediments to efficient urban investments tend to be complex and a realistic timeframe is essential to realize most benefits.
urban development currently lodged in national laws, regulations, and administration.

More broadly, sharply increased cooperation and coordination is necessary at four levels: among USAID sector programs, between USAID and other U.S. agencies, in U.S. programs with NGOs and other donors, and between the “city lead donor” and the city administration. Congress or the Administration must be clear on the necessity of such coordination and define a mechanism for its realization. The obvious option is to put a single agency in charge, an agency with a significant presence in every country where such programs are to be mounted and with urban expertise.

**A Strengthened Cadre of Urban Development Experts**

If USAID is to lead U.S. Government efforts toward a greater international focus on urban areas, strengthening its cadre of urban development experts will be essential. Today, only a handful of knowledgeable staff is at the Agency, reflecting a decline ongoing for over a decade. A professional trained in urban development in every USAID mission that requests help to mount an urban program would both provide the required expertise and signal the seriousness of the new commitment to urban issues. To encourage an integrated approach to urban project programming, such an urban expert could be an additional staff position not counted against a mission’s head count. These officers and the missions’ urban programs should be back-stopped by an enlarged expert team in Washington and, as appropriate, in regional offices. Without such in-house competence, programs are unlikely to run smoothly or effectively. The present expansion of USAID staff is a fortuitous opportunity for adding these experts to the team.
Appendix: Persons Interviewed or Providing Comments on Drafts

AECOM
Duane Kissick

Aspen Institute
David Devlin-Foltz

Brookings Institution
Johannes F. Linn

Cities Alliance
William Cobbett

Habitat for Humanity International
Chris Vincent
Steve Weir

Independent consultant
Tim Honey

Inter-American Development Bank
Jose Brakarz

International City/County Management Association
David Grossman

International Housing Coalition
Cecily Brewer
Bob Dubinsky
Peter Feiden
Jack Howley
Peter Kimm
Nicolette Richey
Alina Zyszkowski

International Real Property Foundation
Sylvia Luchini

Millennium Challenge Corporation
Rodney Bent
Tom Kelly
Sherri Kraham
Franck Wiebe

Overseas Private Investment Corporation
Debra Erb

Rockefeller Foundation
Robert Buckley
Larry Hannah (consultant)

TCG International
David Painter

UN-HABITAT
Brett Dippolino
Christopher W. Williams

Urban Land Institute
John McHwain

Urban Institute
Devanne Brooks
Chas Caldwell

USAID
Rebecca Black
Thomas Briggs
Jessica Tulodo
John Wasilewski

Woodrow Wilson Center
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Selected Endnotes*

*For a complete list of notes, please refer to the IHC website (www.intlhc.org/).

Although technically slums and informal settlements have different characteristics, we use the two terms interchangeably for presentational ease.

2 Some and Buckley (2009), P. 40 and Opal (2000). Kessides (2006, p. 78) is quite emphatic on the importance of urbanization for economic growth: "...the economic growth that has taken place in Africa in the 1990s derives overwhelmingly from industrial (including construction and mining) and service sectors, which are mainly urban based. With very few exceptions these secondary and tertiary activities accounted for at least 60 percent, and averaged almost 30 percent, of GDP growth in the region between 1990 and 2003."

3 What the official figures mask, however, is that the measure of "reasonable access" (a source within one km.) is much more appropriate to rural areas than to urban. Given much higher urban densities, if urban residents have to travel one km. for water, either the queues will be exceedingly long (because of the large catchment area) or they will pay high prices to private source vendors who are located nearer. This leads to the conclusion that urban coverage statistics for "reasonable" access to water are seriously over-estimated (McGranahan, 2007, p. 91).

4 The World Bank’s 2004 World Development Report (p. 160) notes that in Karachi, water is available only for 3-4 hours per day, in Delhi just 4 hours, in Phnom Penh 12 hours, in Dhaka and Manila 17 hours. In Jakarta and Nairobi, over 50% of the water is unaccounted for, in Phnom Penh over 60% and in Karachi 30%. Some areas of Accra have a water supply for one or two days a week and others do not get flow for several weeks. (McGranahan, 2006). A study carried out in Mombasa, Kenya in the late 1990s showed that very few neighborhoods had an average of only three hours of water a day and some have seen on water in their pipes for several years. (USAID, 2004).

5 In Accra, 70% of people in lowest income quintile and in Jakarta, 30%, share toilets with 10 or more households. (World Bank World Development Report 2004, p. 144).

6 Davis (2006), p. 143. Despite declining mortality rates due to improved care, diarrhea still contributes to the yearly death of over four million people and is responsible for the death of 1.6 million children every year (News-Medical.Net, 2009, and World Bank, 2009). Contaminated water also causes cholera, hepatitis, and various skin and eye infections. Stagnant water in poorly drained areas or around sanitary facilities attracts malarial carrying mosquitoes, the single most deadly disease for children in most of Africa. UNICEF estimates that 80% of deaths from preventable diseases (apart from HIV/AIDS) in Antananarivo, Maputo and Lusaka arise from poor sanitation (Ibid., p. 143).

7 More generally, four urban characteristics that help explain current urban transport differences:

1. Income – vehicle ownership
2. Size and size distribution – congestion grows with size, megacities have some of the worst problems of urban poverty and transport

3. Political history – principal difference is between socialist planned cities, with their widely dispersed pockets of high-density residences served by mass transit.

4. Population growth rates – more rapidly growing cities tend to have a higher rate of car ownership and below-average portions of land space devoted to circulation.

Developing country cities are following the same transportation evolution pattern as Western cities toward increased reliance on automobiles, with households locating further from the city center where land is cheaper and some amenities superior and paying more for transport. (World Bank, 2006, p.6-8)

5 To quote the World Bank (2002, p.63), “Nearly 0.5 million people die and up to 18 million people are injured in urban road accidents in developing countries each year... A majority of victims are poor pedestrians and bicyclists. Fears for personal safety and security significantly deter the use of non-motorized transport.”

6 World Bank (2002), p.36. In Mumbai, 30 percent of the poor commute using rail or bus service often from distant locations. To do so they spend close to 20 percent of their incomes on fares (Baker et al., 2001).

7 Studies have found that many psychosocial disorders in urban areas are associated with poor housing and urban environments. Overcrowding, noise and air pollution, poverty and dependence on a cash economy, high levels of violence and reduced social support in cities also weaken and devastate both individuals and the social supports that can help.

a. Data from a cross sectional survey in Sao Paulo shows that even after key socio-economic variables are controlled, the area of residence has a statistically significant correlation with mental health issues.

b. In Dhaka, a comparison of mental health status between slum and non-slum adolescents shows lower self reported quality of life and higher conduct problems among males living in slum areas.

c. Lack of public spaces, sports clubs, etc., contribute to youth boredom and idleness – linked to substance abuse and violence.

d. Overcrowding is a key contributor to mental disorders. e.g. 2007 WHO study in Occupied Palestinian territories (Gaza).


8 This view is expressed, for example, in Alonso and Rey (2007), Phillips (2002), and various sources cited in Newman (2006). At the national level, Patrick (2006) cites similar causes contributing to transnational terrorism (p.36) and reviews data indicating that most individual terrorists come from low-income authoritarian countries in conflict, such as Sudan, Algeria, and Afghanistan (p.34). Of course, such conditions are neither necessary nor sufficient to breed terrorism: many terrorist come from backgrounds absent deprivation or lack of education. Rather than their backgrounds, they respond to complex social conditions regardless of their personal situation.
18. A kampung is defined as a low income dense urban area.

19. In addition to reducing the cost of water by 79%, 70% of the households now spend 15 minutes to fetch water and are within 50 meters of a safe water source compared to 13% who did not benefit from the project, freeing women and children up to pursue other activities. Average per capita daily consumption from yard taps increased to 20 l/d compared to 10 l/d at point sources and kiosks. The project improved water supply for 191,000 people and expanded coverage of new water service to 161,000. The EIRR of 9.40% is considered conservative because it does not take into account the benefits to commercial, industrial and agricultural activities made possible by a reliable water supply, benefits to additional households as the connection program continues, and any health benefits accruing from the project. Source: World Bank (2003c).

20. Transport investments of both types have effects that can work to reduce the incidence of poverty. The effects fall into four classes:
- Labor market impacts—increasing the accessibility of jobs to the poor
- Economic opportunity impacts—effects on firm location to better (more competitive) locations as a result of transportation improvements; growing firms may hire more low income persons
- Access and use of services—better access reduces the cost of services, increases utilization which may have significant health and education effects, for example
- Land prices—can raise value of land occupied by the poor; more generally lead to redistibution of land uses toward highest and best use.

These effects are discussed in Routan (2006).

21. These measures only work when rigorously enforced. A major component of the World Bank’s Lagos Urban Transport Project is to re-regulate the informal sector and more generally strengthen the public authority’s ability to manage traffic. Minuc (2008), pp.49-50.

22. The most successful slum upgrading programs employ a combination of improvements to physical infrastructure and urban services, the provision of social infrastructure, increased access to housing and micro-finance, and improved land management and tenure status. Financing constraints will require the prioritization of interventions but all of the following contribute to the improvement in the living conditions in the slums.

Physical infrastructure includes:
- Environmentally sound provision of safe drinking water (preferably to the individual household but if not possible, to well-located, convenient public taps)
- Basic sanitation services (in dense slums it may not be feasible to install individual toilets at the household level and block toilet facilities might be the only solution)
- Improvements to sewers (storm and sanitary) and drainage and connection of neighborhood systems to city sewage treatment facilities
- Rational and transparent systems of establishing user fees for urban infrastructure and services
- Improvements to the street and internal path network (paving, etc.)
- Improved electrical service (both the extension to un-served areas as well as more steady reliable power)
- Improved public lighting (as a deterrent to crime)
- Additional open spaces (parks, sports fields, etc.)

Urban services include:
- Improved solid waste collection (including more environmentally friendly and healthy sanitary landfills)
- Improved access to public transport
- Increased and more visible police presence

Social infrastructure includes:
- Improved primary and secondary schools (especially water and sanitary facilities for girls and reliable power)
- Opportunities for adult learning (at convenient times) (especially instruction to enhance workforce skills, job training, etc.)
- Improved and more conveniently located primary health care facilities
- Programs to promote community mobilization and organization

Housing and micro-finance includes:
- Increased transparency of housing subsidy schemes (so that they reach the most needy)
- Extension of home improvement lending programs into slum areas by private financial institutions
- Micro-credit programs for smaller scale home improvements
- Rentestimation housing where some displacement may be required

Land management and tenure issues include:
- Consolidation and rationalization of land management policies and standards adapted to the realities of urban living
- Providing security of tenure (while the ideal may be individual property titles, other less costly forms and easier to implement systems of tenure security may be sufficient) Brokars (2002), pp. 32-41 and Painter (2006), pp. 6-7.

Projects are rated by the Bank’s evaluation group by comparing accomplishments against project’s own stated objectives. The focus is on outcomes, sustainability, and institutional development. The ratings referenced focus exclusively on outcomes and projects rated satisfactory are considered successful.
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