

Human Development in South Asia 2014

Urbanization: Challenges and Opportunities



Mahbub ul Haq Centre



HUMAN DEVELOPMENT IN SOUTH ASIA 2014

Urbanization: Challenges and Opportunities

Mahbub ul Haq Human Development Centre
Lahore, Pakistan

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ABBREVIATIONS

AIDS	Acquired immunodeficiency syndrome
BRAC	Bangladesh Rural Advancement Committee
BRT	Bus Rapid Transit
BTK	Bangladeshi Taka
CBOs	Community-based organizations
CNG	Compressed natural gas
CO ₂	Carbon dioxide
DALYs	Disability adjusted life years
EPZs	Export processing zones
FDI	Foreign direct investment
GDP	Gross domestic product
GHGs	Green house gases
HDI	Human Development Index
HIV	Human immunodeficiency virus
HRCP	Human Rights Commission of Pakistan
ICT	Information and communications technology
ILO	International Labour Organization
IMR	Infant mortality rate
INR	Indian rupee
ISWM	Integrated solid waste management
IT	Information technology
ITES	Information technology enabled services
JnNURM	Jawaharlal Nehru National Urban Renewal Mission
KPK	Khyber Pakhtunkhwa
LECZ	Low elevation coastal zone
MDGs	Millennium Development Goals

MSEs	Micro and small enterprises
NCEUS	National Commission for Enterprises in the Unorganized Sector, India
NGOs	Non-governmental organizations
NPR	Nepali rupee
NREGS	National Rural Employment Guarantee Scheme
OPP	Orangi Pilot Project
PKR	Pakistani rupee
PM ₁₀	Particulate matter
RMG	Ready-made garment
SEWA	Self-employed Women's Association
SMEs	Small and medium enterprises
SPARC	Society for the Promotion of Area Resource Centres
UN	United Nations
UNDESA	United Nations Department of Economics and Social Affairs
UNDP	United Nations Development Programme
UN-ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UN-Habitat	United Nations Human Settlements Programme
UNICEF	United Nations Children's Fund
UNPD	United Nations Population Division
US	United States of America
US\$	United States dollar
WHO	World Health Organization

Foreword

“Cities in the developing countries present many contrasts. They contribute to human development as well as constrain it. They are centres of affluence as well as concentrations of poverty. They bring out the best in human enterprise as well as the worst in human greed. They contain some of the best social services available in the country. But they are also host to many social ills such as overcrowding, unsanitary living conditions, drug addiction, alienation, social unrest and environmental pollution.”

[Human Development Report (HDR) 1990]

In 1990 when Mahbub ul Haq was preparing the first United Nations Development Programme (UNDP) Human Development Report he tried to conceptualize the issues that could help or hinder human development, especially in developing countries. It was no surprise then that he included urbanization, as one of the topics that was introduced in the first Report, as a challenge that needed to be addressed. As Mahbub ul Haq put it, “Rapid urbanization is transforming the developing countries, creating ever new problems but also offering new opportunities” (HDR 1990). It has taken Mahbub ul Haq Centre 16 South Asia Human Development Reports to come to this topic now. We believe that at this stage of rapid change of South Asian societies, this perspective on urbanization’s influence on people’s lives and livelihoods, and on the role that South Asia is poised to play in the global economy, will be extremely valuable for South Asian policy makers.

The challenges posed by urbanization in South Asia are complex and multifaceted, especially when that urbanization has been rapid, mostly unplanned and dis-

organized. When these are compounded by pollution, congestion and inadequate basic services including water, power and transport, urbanization can become a nightmare for all, including policy makers. Cities also create challenges in the form of urban slums with inadequate access to water and sanitation facilities and insecure land tenure. Urbanization in this sense can be a source of accentuating poverty and inequality and a breeding ground for social conflict.

On the contrary, urbanization also provides opportunities. As this Report documents, urbanization can be a major force for wealth creation and freedom from deprivation. It is the driving force for modernization, economic growth and human development. Cities can more efficiently supply essential services that would help the growing middle class to improve their income, education and health. Cities thus provide a launching pad for economic and social mobility.

What should be the right policy perspective on urbanization? How to make cities in South Asia more liveable? How to make the urbanization-driven growth process more inclusive to ensure benefits for all, especially for the poor and marginalized? These are some of the issues that this Report tries to address.

The Report contains seven chapters, in addition to the Overview. Chapter 1 provides a conceptual framework of the Report. Chapter 2 describes the trends, characteristics and sources of urbanization in South Asia and its implications on human development. Chapter 3 analyses the impact of urbanization on economic growth, employment creation and modernization of societies. Chapter 4 explores the state of socioeconomic disparities in cities of South Asia. Chapter 5 documents


the impact of urbanization on the environment and its consequences for people's health. Chapter 6 presents a profile of a mega-city, Karachi. And finally, chapter 7 critically analyses urban governance issues and provides a framework for managing urbanization to ensure equitable and sustainable development.

I would like to acknowledge the contribution of the UNDP Regional Bureau for Asia and the Pacific, particularly its former Director, Dr. Ajay Chhibber, for providing financial support to Mahbub ul Haq Human Development Centre. Without this support, it would not have been possible for the Centre to continue this work. I thank the Advisory Board of Mahbub ul Haq Centre, especially Prof. Frances Stewart, (late) Prof. Gustav Ranis, Prof. Jayati Ghosh, and Mr. M. Syeduzzaman, for providing their comments on the concept note and outline of the Report. I must record my grateful thanks to the Governing Board of MHHDC, especially Dr. Nafis Sadik, S. Iqbal Riza, Shaheen Attiqur Rehman and Qaiser A. Shaikh, for providing policy advice when needed. Rana Ghulam Shabbir, secretary general of MHHDC needs special mention for his continuing support and advice for the

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Human Development in South Asia 2014 has been prepared under my direction and continuous supervision. Research was conducted by a team consisting of Nazam Maqbool, Umer Malik, Fazilda Nabeel and Amina Khan, with administrative support of Tanveer Hamza. Two South Asian economists contributed to the Report. I would like to convey my deep gratitude to Prof. Jayati Ghosh of the Centre for Economic Studies and Planning, Jawaharlal Nehru University, India for contributing a paper for this Report. Dr. Rizwan Khair, Director of Institute of Governance Studies, Bangladesh Rural Advancement Committee (BRAC) University, Bangladesh also contributed a paper. I am always grateful for such regional collaboration. All of us must remember that Mahbub ul Haq Centre is the first of this kind of regional institution to encourage such regional collaboration. This was the dream of Mahbub ul Haq which we hope would continue.

Lahore
02 July 2014


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About Mahbub ul Haq Centre

Under the umbrella of Foundation for Human Development in Pakistan, Mahbub ul Haq Human Development Centre (MHHDC) was set up in November 1995 in Islamabad, Pakistan by the late Mahbub ul Haq, founder and chief architect of United Nations Development Programme (UNDP) Human Development Reports (HDRs). With a special focus on South Asia, the Centre is a policy research institute and think tank, committed to the promotion of the human development paradigm as a powerful tool for informing people-centred development policy, nationally and regionally.

The Centre organizes professional research, policy studies and seminars on issues of economic and social development as they affect people's well-being. Believing in the shared histories of the people of this region and in their shared destinies, Haq was convinced of the need for cooperation among the countries of the region. His vision extended to a comparative analysis of the region with the outside world, providing a yardstick for the progress achieved by South Asia in terms of socioeconomic development. The Centre's research work is presented annually through a Report titled, *Human Development in South Asia*.

Continuing Mahbub ul Haq's legacy, the Centre provides a unique perspective in three ways: first, by analysing the process of human development, the analytical work of the Centre puts people at the centre of economic, political and social policies; second, the South Asia regional focus of the Centre enables a rich examination of issues of regional importance; and third, the Centre's comparative analysis provides a yardstick for the progress and setbacks of South Asia vis-à-vis the rest of the world.

The current activities of the Centre include: preparation of annual reports on *Human Development in South Asia*; publication of a collection of unpublished papers of Mahbub ul Haq; preparation of policy papers and research reports on poverty reduction strategies; and organization of seminars and conferences on global and regional human development issues, South Asian cooperation, peace in the region and women's empowerment.

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Overview



Cities have been at the forefront of South Asia's economic growth, but this growth has come at the cost of increasing inequalities and deteriorating urban environments. The region's urban areas present many contrasts—on the one hand they are centres of opportunity and affluence, yet they house large concentrations of poverty and deprivation for many of their urban residents. They reflect a 'dual reality'—highways, mega-malls, skyscrapers, and gated villa communities that symbolize growing wealth and prosperity juxtaposed with slums and informal squatter settlements where the urban poor live and work in low-paid, insecure, irregular jobs in the informal sector as domestic helpers, street vendors, factory workers and home-based workers.

South Asia's 'world class cities' in the making are not marked by equitable access to health and education facilities, public transport, better housing and safety for urban residents. Roads are congested; there are acute energy and water shortages; and municipal services are absent in informal settlements, which can sometimes comprise up to half of a city's population. On top of that, climate change poses even more problems. A large part of the urban population of Bangladesh, Sri Lanka and the Maldives live in low lying areas and are vulnerable to extreme weather conditions—floods and typhoons—that can wipe out years of development and push people into abject poverty.

From a human development perspective, this constrains the capability of marginalized urban residents and denies them an equal opportunity in the urban economic growth process. Cities must be socially just, inclusive and environmentally sustainable while remaining engines

of economic growth, and increasingly, they must be resilient to climate change and other disasters.

The process of urbanization presents an opportunity for South Asia to put its approaches to development on the right track. To achieve human development, it is essential to reinforce the creative and productive capabilities of the region's cities and to overcome their many social ills. To this end, transforming the ways cities are managed, reorienting the focus towards housing and urban infrastructure especially for marginalized slum dwellers and improving the quality of the urban environment are absolutely critical. Tipping the scale of urbanization in favour of the region's vast urban populace is the real challenge for South Asia.

The 2014 Report aims to understand the opportunities and challenges posed by urbanization for economies in the South Asian region—India, Pakistan, Bangladesh, Nepal, Sri Lanka, Bhutan, the Maldives and Afghanistan. It analyses the state of urbanization in South Asia and the impact it has had on human development in the region. The analysis explores whether urbanization has improved access to services like education, health, water and sanitation or has led to an increase in socioeconomic disparities for urban inhabitants, specifically the poor and marginalized groups. The question of environmental sustainability and liveability is also addressed in the context of increased frequency of natural disasters and climate change in the region. The Report concludes by analysing the policies that various South Asian countries have put in place to manage urbanization and, based on the analysis, recommends policy options to make the process

of urbanization more inclusive and sustainable.

The seven chapters of the Report trace how the process of urbanization has evolved in the region, its unplanned nature and pace and the key implications it has for human development in South Asia in addition to how this inevitable force of urbanization can be guided towards achieving the goal of liveable, equitable and sustainable cities. The Report highlights some key findings:

1. Urbanization in South Asia has been rapid, unplanned and uneven, with a large share of the population concentrated in a few large cities. The share of small and medium cities in the total urban population has been declining over time, putting strains on existing resources in the mega-cities. The level of urbanization in South Asia is increasing at a fast rate, driven predominantly by natural increases in the urban population and rural to urban migration.
2. Urbanization has emerged as a key contributor to economic growth for the South Asian region, with three-fourths of total growth being generated in the cities. This urban economic growth process is beneficial not only for creating urban employment, but also for contributing to rural development in the region.
3. While urbanization has generated many opportunities in terms of urban-led economic growth for countries in South Asia, urban centres subsume wide disparities in access to key infrastructure and services like water, sanitation, adequate housing, public transport, health and education. These disparities are particularly pronounced between the slum and non-slum populations of cities. They act as restraints on people's capabilities and are a major determinant of urban poverty and inequality.
4. Though the process of urbanization has been fairly recent, many of

South Asia's mega-cities are already experiencing a decaying urban environment. Hazardous levels of air and water pollution, improper solid waste management and the inability of cities to provide clean water and sanitation to urban residents have put the sustainability and liveability of South Asian cities into question.

5. The challenge for urban governance in South Asia is to go beyond creating wealth for only some of its urban residents. Urban governance in the region must work on critical issues including effective decentralization of power and resources; mobilizing revenues for financing urban infrastructure and municipal services; focusing on synergies between urban growth and informal employment; and improving the quality of the urban environment for the vast majority of the urban poor.

In South Asia, what constitutes as 'urban' varies from one country to another, making cross-country comparisons difficult. Estimating the extent of urbanization and responding to the many challenges that it presents for the region's growing cities has faced limitations due to data constraints and definitional issues. For a mutually reinforcing relationship between urbanization and human development, it is essential for urban policy to incorporate spatial planning in conjunction with social policy before the diseconomies of increased agglomeration dampen the benefits of urban growth.

Urbanization has unfolded in South Asia in varying degrees. In addition to population size, what constitutes as 'urban' depends on whether the nature of work that the population is engaged in (mainly non-agricultural activity); access to urban facilities—roads, street lighting, electricity, water supply, sanitation etc.; and administrative division are taken into account. Making cross-country comparisons is particularly challenging because the definition of 'urban' in one country may be radically

different from that of another. Moreover, population censuses are not conducted frequently enough to provide relevant data for assessing the extent of urbanization in each country. In spite of this, the factors that cause urbanization are fairly clear—rural to urban migration; natural increase in the urban population through higher birth rates and lower death rates as compared to rural areas; and the transformation of rural into urban areas as a result of increased population density. The latter has increasingly become the dominant driver of urbanization in the past decade.

Beyond definitional issues, urban realities in South Asia are extremely complex. Urban spaces can be sources of democratic inclusiveness and freedom from deprivation at one level, and the scenes of social conflict and environmental degradation at another, bearing testimony to the fact that urbanization can be progressive as well as regressive. The notion that towns and cities are the hubs of prosperity is countered by the growing urbanization of poverty. Estimating urban prosperity through an economic lens has narrowed the focus of cities as engines of growth. Tracking changes in per capita gross domestic product (GDP) and quantifying growth through industrial and tertiary activities depict one side of the urbanization experience. The growing ‘informalization’ of a range of economic activities reflects the other. Calculations of urban poverty based on international or national poverty lines tend to understate the extent of urban poverty. Furthermore, unequal access to public ‘goods’ and over-exposure to public ‘bads’—such as atmospheric pollution—leave the urban poor worse off than other income groups. That cities are the primary locations for improving quality of life and enabling social solidarity and creativity is often missed in the region’s policy vision towards urbanization.

For people to lead healthy and pleasant lives, urban planning has to go through a major turnaround in South Asia. Governments should focus on creating viable urban societies by strengthening public investment in basic physical and social

infrastructure as well as ensuring greater coverage of public services. Before the diseconomies of increased agglomeration dampen the benefits of urban growth and exacerbate urban inequality, spatial planning must occur in conjunction with social policy, both of which are crucial to the state’s capacity to manage urbanization. In order for higher levels of urbanization to be associated with better outcomes in human development, governments will have to deliver utilities and public services across the spectrum of urban residents.

South Asia is currently the least urbanized region of the world, with only a third of the population living in cities; yet the rate at which it is urbanizing is amongst the fastest. High demographic growth—both natural increases and rural to urban migration are significant contributors to this change. The urban population is unevenly distributed, being concentrated in a few large cities of the region, while the share of the urban population in small and medium cities is declining over time. The rapid and haphazard nature of urbanization in the region puts pressures on existing resources in the cities.

Urbanization has been increasing steadily since the 1950s. In recent decades, however, it has gained considerable momentum and reached a point where around one-third of the total population resides in urban areas. During the next four decades, the urban population of South Asia is expected to more than double and by 2050, more than half of the South Asian population will be residing in urban areas. The pattern of urbanization in South Asia has a great bearing on global trends as the region accounts for 14 per cent of the world’s urban population. Therefore, the region needs to prepare adequately for this demographic change.

Urban development in the region has been uneven, with the region’s countries positioned at different levels of urbanization. Except for the Maldives, Pakistan

is the most urbanized country and India constitutes three-fourths of the total urban population of the region. Sri Lanka and Nepal are the least urbanized countries. Even within individual countries, urbanization is unevenly distributed, with pockets of a few very urbanized areas within a majority of rural areas. Urbanization is largely concentrated in a few mega-cities or large cities—Delhi, Mumbai, Dhaka, Kolkata, Karachi and Colombo. There is a need to focus on the spatial distribution of urbanization in order to reduce infrastructural burden on these large cities and to ensure that the benefits of urbanization are distributed equitably.

In addition to the natural increase in population, rural to urban migration is a major source of urban growth. For some countries like Afghanistan, conflict leads to increased migration, which in turn leads to rapid urbanization. Countries such as India, Pakistan and Bangladesh also experience an influx of internally displaced people (IDPs) in their mega-cities as a result of natural disasters. Migrants are attracted to urban areas for better job opportunities and improved access to services; however, migration has intensified the demand for land and urban services. Urban planners need to ensure that basic services and employment opportunities are provided in small towns and cities in order to reduce migratory pressures on large cities.

A positive consequence of urbanization is increased economic growth in the region. Urban areas in South Asia contribute three-fourths towards the region's GDP. The services sector, mainly information and communications technology (ICT) and financial services, has emerged as a key driver of urbanization and economic growth especially for cities like Bangalore. Other cities like Dhaka have thrived on manufacturing for their contribution to urban-led economic growth.

Unfortunately, urban-led economic growth has not resulted in improvements in social and human development outcomes. While urbanization has benefited a few, huge challenges still remain

especially with regard to an increase in the number of slums and slum dwellers and inadequate access to infrastructure and services.

There is no direct and causal relationship between urbanization and human development. Sri Lanka has achieved better human development outcomes compared to other South Asian countries with a relatively lower degree of urbanization. For urbanization to have any positive effect on human development, economic opportunities provided by urbanization need to be supplemented by improvements in infrastructural facilities and the provision of services that enhance quality of life.

Since three-fourths of South Asia's economic growth is led by cities, enhancing the productivity and competitiveness of urban areas is vital. Given the synergies between the urban economic growth process and employment generation on the one hand, and rural development on the other, it is imperative to make this urban driven growth process inclusive, especially for the majority of the poor and marginalized workers employed in the informal sector.

South Asia is the second fastest growing region of the world, with most of the economic growth taking place in urban areas. South Asia's cities are home to about one-third of its total population and contribute three-fourths to the region's economic output. Globalization of trade, finance and information and communication systems has improved the export performance of cities. Cities in the form of industrial clusters are contributing to increased production and employment. Cities like Bangalore and Mumbai have evolved into knowledge centres attracting a large share of domestic and foreign investments. With improved business environments and suitable infrastructure, the competitiveness and productivity of the region's cities have multiplied.

Urban economic growth in the region is important because of its synergies with not only employment creation

in cities, but also its impact on rural development. For South Asia, the expansion in employment has not been as robust as the level of economic growth experienced. The growing share of urban-based services and industry in GDP and lower share in employment corroborates this trend. Employment growth has taken place almost exclusively within the urban informal economy. In South Asia, eight out of every ten workers are employed in the informal sector in non-agricultural activities, where they work long hours, in hazardous conditions and with little worker protection or insurance.

The urban economic growth process also has strong linkages with rural development. It boosts rural development by creating opportunities for both farm and non-farm sectors in rural areas. Economic growth in cities helps to boost rural economic growth by providing employment opportunities to rural residents and access to bigger markets. The earnings of rural migrants play an important role in supplementing incomes and improving livelihoods in receiving households. A strong domestic farm sector affects urban staple food prices and increases the supply of locally produced goods.

Well-managed urbanization has immense potential for not only enhancing national economic growth but also making the growth process more inclusive and equitable. South Asia needs to consider urbanization as an opportunity to address issues of poverty, inequality, deprivation and underdevelopment. Such an approach will facilitate economic growth, reduce income inequality as well as balance rural-urban development. The region should link economic growth with job creation by boosting investment in labour-intensive sectors, encouraging small and medium enterprises and increasing social sector spending on health and education. Any urban development policy must recognize the role of the urban informal sector and work towards incorporating it in the formal growth process in a substantial way.

A typical South Asian city presents many contrasts—while urban centres in the region are evolving as cities of opportunity, there are serious socioeconomic disparities that need to be addressed in order to ensure equitable human development and prosperity for urban residents. Infrastructural challenges and service gaps—inadequate access to transport, housing, water and sanitation, solid waste management, energy, health and education—restrain people's capabilities and are a major determinant of urban poverty and inequality. The challenge for South Asia is to make its cities develop in a socially just and environmentally sustainable manner for the benefits of urban growth to be equitably distributed.

Infrastructural shortages in urban areas have a strong impact on urban poverty and deprivation. Underinvestment in basic infrastructure and key municipal services is a major determinant of inequality, poverty and socioeconomic deprivation in cities. Access to key services, such as health and education has an important bearing on the productivity and capability of urban dwellers and can prevent them from having an equal opportunity for participating in the city's economic growth.

Most cities in the region are heavily dependent on road transportation, which generates problems of congestion, pollution and increased risk of accidents. There is a need for urban planning to look at both demand-management measures to check the proliferation of private motor vehicles along with overcoming the chronic underinvestment in public transportation. Ahmedabad and Lahore have recently implemented Bus Rapid Transit (BRT) systems as an efficient means of improving access to public transport for urban residents.

Poor urban dwellers living in peripheral areas are typically excluded from key urban services, whether it is access to piped water, sanitation or solid waste man-

agement. No city in South Asia provides round the clock water supply to its urban residents. Sanitation and solid waste collection are mostly supplied to the core of the cities, leaving out slums and informal settlements in unhealthy environments that impose significant health costs for their inhabitants. Access to improved water sources and sanitation in urban areas is better when compared to rural areas, but the disparity between slum and non-slum areas in a city is large. The same disparity between slums and non-slums persists for urban health and education indicators as well.

Expanding access to water, sanitation and improving solid waste management is a fundamental concern for urban policy makers in the region, given that a vast majority of its urban population lives in slums, which by definition are characterized by the absence of these services. Some countries such as India and Bangladesh are already using innovative approaches to tackle the problem of service delivery in slums. Conveying information about water availability to slum dwellers via text messages and using slum dwellers as waste collectors are steps in the right direction. However, these approaches need to be formalized and scaled up with partnerships between non-governmental organizations (NGOs) and relevant public sector utilities in the city.

Urban poverty often stands neglected in policy-making in the region, given the historical levels of rural poverty. Since slum populations comprise up to half of a city, the problem of urban poverty must not be considered marginal. Urban poverty interacts to produce other urban challenges such as crime and violence and restricts opportunities for vulnerable groups such as women and youth. Urban poverty needs to be understood as multidimensional in nature and a consequence of the lack of access to key capability-enhancing urban infrastructure and services.

Unplanned urbanization increases environmental threats, with devastating consequences for people's empowerment. The solution requires the integration of environmental considerations in urban planning.

Rapid and unplanned urbanization in South Asia is intensifying environmental problems—in the form of increased air pollution, water pollution and ineffective solid waste management with devastating consequences for the people of the region.

Environmental trends over recent decades show a deteriorating situation in South Asian cities. Air quality is a major concern. The main factors responsible are the large number of vehicles, low quality of fuel, poor emission control standards and inadequate public transport. Both surface and ground water have become polluted mainly due to the discharge of wastewater. Only a small proportion of the generated solid waste is collected in most cities, negatively impacting the environment. These problems are also being compounded by climate change.

Environmental degradation limits people's capabilities by affecting their health. The disease burden arising from air pollution; dirty water and unimproved sanitation; and inefficient solid waste management is disproportionately higher for children, women and the poor. Long-term exposure to outdoor air pollution causes pneumonia, tuberculosis and other respiratory infections, immune system damage and carbon monoxide poisoning which account for the bulk of deaths. Lack of access to improved sanitation and safe water affects human health directly, resulting in a large percentage of diseases and a significant proportion of mortality. Uncollected municipal solid waste causes diarrhoea, parasitic infections and injuries. Climate change increases the disease burden through its impact on access to water

and sanitation, air quality, food security and living conditions. It also impacts other dimensions of human well-being such as livelihoods, infrastructure, migration patterns and environmental services in cities.

The solution requires the formation of a strategy that tackles current environmental challenges by incorporating equity and human development. This includes an increase in access to efficient energy, improved water and sanitation facilities and proper solid waste management. All these services need to be provided to every one without any discrimination and in a sustainable way. In the case of energy, there is a need to provide cleaner energy to all, to maximize energy efficiency and to use power resources that pollute less. There is a need to improve access to safe water and sanitation for all, including slum dwellers. This requires an increase in public investment for water and sanitation. Cities in South Asia need to follow an integrated solid waste management (ISWM) approach. There is also a need for equitable disaster management systems and social protection programmes. This will not only reduce vulnerabilities, but also contribute to reduction in poverty and deprivation.

The dualities of urban development are sharply felt in the mega-cities of South Asia and especially in Karachi. As the city expands, the opportunities and amenities available to its residents are constrained by infrastructural, socio-spatial and ecological overload. Given this scenario, the way to ensuring a sustainable and inclusive urban future for Karachi rests in effective mega-city management.

The terrain of urban development has taken an interesting turn in South Asia, where mega-cities such as Delhi, Mumbai, Kolkata, Dhaka and Karachi have become the focal point for diverse forms of economic, social and political interaction. Each of these cities performs a vital function with regard to trade, investment, employment, growth and innovation while simultane-

ously bearing the cost of this function. Not only do the cities face acute challenges in terms of densification, overburdened and dilapidated infrastructure, poor urban service provision and a growing slum population, they also pose significant threats to urban life—traffic congestion, environmental pollution, socio-spatial polarization and rising poverty and violence.

Chaotic spatial development lies at the core of such dichotomies. In this respect, Karachi's profile as a mega-city seeks to uncover the underlying link between a city's economic and spatial arrangement and the quality of urban life offered to the resident population. Karachi's role in Pakistan's economy as gauged through its contribution to national output, revenue collection and financial activity depends on a productive labour force, good infrastructure, a stable environment and effective city administration. When 75 per cent of the working population is employed by the informal sector, what hope does the labour force have in being integrated with the formal economy? In a city where informal settlements have become the recourse for affordable housing, where 88 per cent of sewage is left untreated, only 60 per cent of all households are connected to the main water supply network and 50 per cent of the population lives below the poverty line, whose needs are being served? For a city that appears at the bottom end of global 'liveability' rankings and is cited as the most dangerous city in the world, Karachi's urban future awaits an informed response from its urban planners.

Time and again, the priorities and resources assigned to urban planning in Karachi have been misdirected. Overlapping responsibilities, conflicts of interest and poor coordination across the various development agencies and authorities have placed the city in the hands of an extremely powerful informal network that controls access to water, land, housing and transport.

Despite these complexities, Karachi stands to gain from a comprehensive urban transition strategy. Steps worth con-

sidering include mobilizing resources to finance basic services; recovering losses that emanate from water theft and faulty pipelines; providing access to formal housing credit for low- and middle-income groups; and building the city's administrative capacity to assess the scale and quality of urbanization. Principles suited to effective urban policy-making entail due consideration to ecological and environmental conditions in the city in addition to the needs and requirements of low-income residents; social and environmental assessments to ensure proper land-use; protection of land from illegal occupation and encroachment; and adherence to zoning bye-laws and building regulations that favour orderly densification. Equity, sustainability and urban poverty alleviation need to be at the forefront of planning and development. By incorporating these elements, the benefits of urban life can be shared equally and equitably across the city's residents and a secure urban future for Karachi can be envisioned.

South Asian countries are beginning to show progress in promoting democratic urban governance, though their experience with decentralization of power to municipal governments is far from being complete or effective. The architecture of urban governance holds the key to managing many of the current urban challenges facing the region and to helping it shape and create inclusive and sustainable cities for its people.

Most countries in South Asia have initiated local government reforms for better public sector efficiency and democratization. Yet after all the years of reforms, local governments in the region are still struggling for political and financial independence from federal and provincial/state governments. For some countries that have a unitary form of government including Bangladesh, Nepal and Sri Lanka, urban governance is subjected to strong control from the central government. In other countries like Pakistan, local governments brought into ex-

istence by the political will of authoritarian non-representative central governments are pushed back when new governments take power. For India, even though the state has decentralized power to local and municipal governments, the devolution of authority and responsibility has not been effective in translating into good urban governance and planning for India's rapidly growing cities.

Effective governance by empowered political leaders should ensure that cities are able to implement strategies without interference from other levels of governance. Due to limited authority and resources, local governments have been unable to extend services to poor urban communities. Central and provincial governments in the region have typically maintained control of a large portion of the tax revenue base along with allocation and approval of expenditure for urban development. Local governments routinely depend on intergovernmental transfers and grants from central governments, thus reinforcing the centre's control over urban governance. Municipal governments in South Asia have remained preoccupied with balancing budgets and politics, and as a result, the urban poor have become less of a priority. Ineffective solutions have been undertaken as short-term fixes to long-term problems.

Many of the urban challenges that have arisen in the wake of rapid and haphazard urbanization in South Asia have highlighted the need for comprehensive urban planning strategies to manage the region's urban future. Some countries have responded by drafting their urban policy documents recognizing the issues that cities will face in the future. However, it seems that the issue of urbanization in the region is trapped in a policy web. Respective countries in the region have outlined some ambitious plans, but there are multiple and conflicting policy priorities where the roadmap for urban development is rather unclear. The lack of integration between urban and sectoral plans has resulted in poor urban planning in South Asian countries. The rapid pace of urbanization

has also superseded the pace of urban planning and implementation of urban development programmes. This puts a heavy burden on urban infrastructure, housing, land and urban service provision.

These trends are long recognized in urban policy dialogues and are begging for change. Some countries like India are experimenting with innovative ways of reforming urban governance and finance with programmes like the Jawaharlal Nehru National Urban Renewal Mission (Jn-NURM). Pakistan and Bangladesh have successfully used partnerships between local governments and private and community organizations for better urban service delivery. These initiatives look promising, but will have to be complemented with a

cross-sectoral approach to urban development—an approach that entails social and spatial equity, growth with redistribution, empowerment of the poor and environmental sustainability of cities.

As a final thought, we can revisit the *Human Development Report 1990*, which rightly said: ‘Rapid urbanization is neither a crisis nor a tragedy. It is a challenge for the future.’ Rapid urbanization is transforming South Asia’s cities, creating ever new problems, but also offering new opportunities. Therefore, good urban governance and management seems to be the key to solving the growing problems of our large and small cities and to unleashing their potential in improving human development outcomes in the region.

Urbanization and Human Development: A Conceptual Framework*

The evolving concept of urbanization

At the outset, it is important to be clear about the concept of urbanization. In its simplest form, urbanization can be defined as the increase in population resident in urban areas (cities and towns) rather than rural areas. Of course this further begs the question of the dividing line between urban and rural areas, which is usually taken to be some level of population density and sometimes also includes some notion of the degree of dependence on agriculture as the primary activity. It has been noted that there are at least three types of fairly serious limitations to our empirical assessment of the extent of urbanization.¹ First, population censuses tend to be limited and infrequent, with some countries having only relatively dated census data. Second, the criteria used to define an urban area differ across countries. While all countries define settlements of more than 20,000 people as urban, some countries mark settlements of more than 1,000 people as urban. However, in India, for example, only a location with a minimum population of 5,000 people with population density of at least 400 persons per square kilometre and at least 75 per cent of the male working population involved in non-agricultural activity is considered to be urban. It is hard to make cross-country comparisons when there is large divergence in terms of definitions of urban areas (box 1.1). Then there are differences across countries with respect to the boundaries of the city and what makes up the 'peri-urban' area. Boundaries can relate to the built-up area, the administrative boundary, the metropolitan area or the metropolitan region and the population

of a city can vary depending upon which boundary is used. Thus China uses a more extensive boundary which gives it many more 'mega-cities' compared to say Europe, which uses a more restrictive physical boundary of the built-up area for the marking of a particular city that excludes nearby settlements.

It is common to associate the process of urbanization with rural-urban migration, which has certainly been an important propelling force through history and remains significant today. But this is not the only way in which urbanization occurs. In fact urbanization results from three different and not always related processes, each of which has varying implications and therefore has to be addressed differently by policies. These three causes of urbanization are:

- the natural increase in urban population through higher birth rates/lower death rates in urban areas compared to rural areas;
- migration from rural to urban areas; and
- increases in population density in particular locations that transform some rural areas into urban areas.

In fact all three of these processes have played important roles in South Asian urbanization, with the last one (which has been the most neglected by policy makers) becoming increasingly more significant in the past decade. Yet these may have different effects and implications, and so policies that seek to direct and cater to the needs of urbanization need to recognize these varying processes.

Urbanization results from three different and not always related processes

*This has been contributed by Prof. Jayati Ghosh of the Jawaharlal Nehru University, New Delhi.

Box 1.1 Definitions of urbanization in South Asia

Within South Asia each country has its own criteria to classify an area as urban. India uses a broad-based definition involving both statutory (administrative) and census classification. Nepal also uses a definition comprising various demographic and economic characteristics. Pakistan and Sri Lanka have a restrictive definition based only on an administrative criterion to define a settlement as urban.

India: Urban areas include towns (places with a municipality, corporation, cantonment board or notified town area committee). Additionally, an area can also be classified as urban if it fulfils the following criteria: a minimum population of 5,000, a density of population of at least 400 per

square kilometre (1,000 per square mile), and at least 75 per cent of the male working population engaged in the non-agricultural sector.

Pakistan: Areas with a municipal corporation, a town committee or a cantonment board are classified as urban.

Bangladesh: Places with a municipality (*pourashava*), a town (*shahar*) committee or a cantonment board are classified as urban. In general, urban areas should have at least 5,000 persons in a continuous collection of houses where the community maintains public utilities, such as roads, street lighting, water supply, sanitary arrangements, etc. Urban areas are generally

centres of trade and commerce with a majority of the population engaged in non-agricultural activities. An area that has urban characteristics but has fewer than 5,000 inhabitants may, in special cases, be considered urban.

Nepal: Urban areas should have a minimum of 20,000 inhabitants, annual revenue of NPR500,000 and minimum urban facilities such as electricity, roads, drinking water and communication services. For hilly areas, the definition is relaxed to a minimum of 10,000 inhabitants.

Sri Lanka: Urban areas include municipalities and settlements with an urban council.

Source: UNPD 2014.

Also, most urban settlements are marked by constant but varying patterns of in-migration and out-migration, so that the net effects can be fluid and change from year to year and from place to place. In other words, even within a country or region within a country, the process of urbanization is not homogenous or occurring at the same pace in all areas. It is usually not the case that all urban centres grow at similar rates—there are examples of both expanding and shrinking cities and towns across South Asia. There are clear diseconomies of excessive agglomeration, for example, resulting from too much urban sprawl, congestion, transport bottlenecks, etc., that may reduce incentives for some cities to grow beyond a point, thereby incentivising the expansion of what were smaller towns. Or, urbanization can take the form of linking up various contiguous urban settlements to the point where it becomes hard to distinguish where one ends and the other begins. Or, smaller towns may lose populations to larger towns that offer more opportunities. The possibilities are multiple and often operate simultaneously.

As with so many other processes of development, it is possible to see urbanization as both opportunity and threat.

Urbanization has been linked to development and poverty reduction with arrows of causation operating in both directions.² Urbanization has been seen as the driving force for modernization, economic growth and human development. Thus, for example, a recent report of the World Bank and International Monetary Fund (IMF) found that “urban poverty rates are significantly lower than rural poverty rates and that urban populations have far better access to the basic public services defined by the Millennium Development Goals (MDGs), such as access to safe water and sanitation facilities, even though within urban areas asymmetries in access are large.”³ The optimistic view of urbanization is based on the recognition that “cities and towns are hubs of prosperity—more than 80 per cent of global economic activity is produced in cities by just over half of the world’s population. Economic agglomeration increases productivity, which in turn attracts more firms and creates better-paying jobs. Urbanization provides higher incomes for workers than they would earn on a farm, and it generates further opportunities to move up the income ladder.”⁴ Urbanization is associated with an expansion of the middle class and the spread of education

and a more informed populace, which in turn facilitates democratic participation and political voice for a larger range and number of citizens. The higher population density of cities is also supposed to make service delivery easier and able to reap the benefits of economies of scale and agglomeration.

On a similar note, the *China Human Development Report 2013* notes that urbanization “provides an opening to increase equal access by all to opportunities and social services and to address some of the current inequalities that are emerging as the country transitions to an economy where market mechanisms play a greater role. Cities are centres of economic and cultural development.”⁵ Urban areas are generally perceived to be more cosmopolitan and more accepting of diversity and of intermingling of cultures. They also tend to be more supportive of innovations of various kinds—technical, organizational and social—and therefore are more technologically dynamic.

Certainly there is a substantial amount of truth in this vision. But, as always, the current urban reality in most developing countries is more complex. Even the optimistic view of the positive potential generated by urbanization is usually tempered by the recognition that on its own it is not always necessary and certainly never sufficient to achieve either development or poverty reduction, and that the process of urbanization must be planned for with appropriate investments and other policies if it is not to lead to other problems. Thus the same China Human Development Report quoted above notes that in China, where urbanization has been largely driven by rural-urban migration, “the rapidity of urbanization is inconsistent with its quality”, partly because of unequal citizen’s rights for rural-urban migrants and partly because it is “characterized by high consumption, excessive emission, over-expansion, low efficiency of resource allocation and enormous resource and environmental costs.”⁶

The challenges posed by management of urban spaces are complex

and multi-pronged. They are particularly daunting in developing countries where the process of urbanization is rapid and relatively disorganized, with a proliferation of slum settlements and generally inadequate infrastructure and provision of utilities and basic services. Population density can be an opportunity but it can also pose major challenges, especially when the context is one of inequality and material fragility of a significant number of people. Social divisions can become major sources of instability if they are not adequately managed. And the problems of pollution, congestion and inadequate basic services including water, power and transport can make for unhealthy and unpleasant urban lives, which in turn cause social discontent and other tensions.

This illuminates the often contradictory nature of cities and of urban spaces generally. Urbanization can be a major force propelling societies towards prosperity, democratic inclusiveness and freedom from deprivation; or it can be a threat to well-being and a source of social conflict. Cities can be major drivers of unsustainable development associated with ecological degradation and climate change; or they can be places that show how to provide a satisfying way of life for the majority or all citizens without necessarily requiring or being associated with environmental destruction. This is why the management of urbanization in South Asia requires both urgency and a long-term vision, with an emphasis on planning for future needs through a combination of public investment and changing private incentives.

Urbanization and economic processes at local, national and international levels

Changes in rates of urbanization have generally tracked changes in per capita gross domestic product (GDP) and structural changes such as increasing shares of industry and services in GDP and in the workforce, although obviously the relationship is not always uniform.⁷ Generally, the richer countries in the world are predomi-

Urbanization can be a major force propelling societies towards prosperity, democratic inclusiveness and freedom from deprivation; or it can be a threat to well-being and a source of social conflict

The average indicators for urban areas may mask considerable internal diversity, with some poorer urban groups possibly showing worse outcomes than the rural averages

nantly urban and most rapidly urbanizing countries (of which China is the most extreme example) have experienced relatively long periods of rapid growth. However, there are other causes of urbanization as well, and many poor countries with relatively slow growth have also experienced significant increases in the share of urban population.

Some of this may be the outcome of wider global processes as well. The period of globalization has impacted even apparently domestic processes such as the rates and nature of urbanization. Globalization tends to favour the emergence of big or even mega-cities, rather than a more balanced expansion of towns linked through good infrastructure. A study has argued that there is a significant emergence of what are called 'global cities' even in relatively backward economies, linked through various value chain-based production structures that not only link some segments to external economic powers but also rely on and even perpetuate informality in developing countries.⁸ "The economic fortunes of these (global) cities become increasingly disconnected from their broader hinterlands or even their national economies. We can see here the formation, at least incipient, of transnational urban systems. To a large extent major business centres in the world today draw their importance from these transnational networks... One result of the dynamics is the growing informalization of a range of economic activities which find their effective demand in these cities, yet have profit rates that do not allow them to compete for various resources with the high-profit making firms at the top of the system. Informalizing part or all of production and distribution activities, including services, is one way of surviving under these conditions."⁹

This is certainly evident, for example, in India, where there is strong evidence of substantial increases in subcontracting by the formal manufacturing and service industries to more informal production arrangements since 2001.¹⁰ Urbanization then can be seen not only as a result of mi-

gration induced by local push factors such as unemployment, fragile livelihoods and poverty in rural areas. It could also reflect patterns of output growth that generate production and marketing links to global and national processes that are more easily mediated through urban spaces. The proliferation of subcontracting and value chains may have external economic origins, but then they tend to be speedily transmitted to internal economic processes as well, simply because of the competitive pressures applied to domestic producers.

Urbanization, inequality and poverty reduction

It is generally assumed that urbanization is associated with improvements in quality of life at least in terms of some basic indicators. Certainly, in most developing countries basic survival indicators such as infant mortality and maternal mortality rates tend to be significantly better in urban areas compared to rural areas, and life expectancy is therefore also higher. Much of this is related to the fact that there is usually more public investment in basic physical and social infrastructure as well as greater coverage of public services, aided by the agglomeration advantages provided by higher population density. But it is obvious that higher levels of urbanization will be associated with better health outcomes only to the extent that governments are able to deliver utilities and public services and ensure generally healthy conditions across the spectrum of urban residents, which in turn depends upon the competence and accountability of such governments as well as the resources available to them. Thus, the average indicators for urban areas may mask considerable internal diversity, with some poorer urban groups possibly showing worse outcomes than the rural averages.

Calculations of urban poverty are significantly skewed by the application of the global purchasing power parity (PPP) poverty lines of the World Bank or national poverty lines, both of which

tend to provide relatively misleading estimates that typically understate the extent of urban poverty. One problem is that for the majority of families in most cities and towns, access to almost all basic needs must be purchased and cannot be catered to within households through household production. The minimum access to goods and services that would allow for a decent standard of living in most developing countries—and particularly in South Asia—typically requires a level of per capita income that is significantly higher than the official poverty line, which is at or often even below the lowest survival levels. Quite apart from basic nutrition, in many developing countries even the essentials of daily existence such as water (for both drinking and other uses), toilets and sanitation facilities have to be purchased along with power and transport services. Therefore official estimates of urban poverty do not capture poverty so much as extreme destitution. Indeed, it has often been found that when the various costs associated with avoiding deprivation in urban areas are included, the ‘real’ poverty lines tend to be much higher than the official lines, even in countries like China.¹¹

In addition to income poverty, multidimensional poverty also tends to be quite significant in urban areas of the developing world. This is evident in continuing high levels of child mortality and undernutrition. For example, while more than one-fifth of all urban children living in poor and middle-income countries are estimated to be stunted, the proportion is much higher among lower income families.¹² For example, in India more than half the children are stunted among the bottom quartile of the consumption distribution in urban areas.¹³ Child mortality shows similar differences even within urban areas. So one study found that under-five mortality in slum settlements (where half of the population lives) in Nairobi, Kenya was 151 per thousand live births—twice the average for all of urban Kenya and three times the average for Nairobi as a whole.¹⁴

These features reflect the fact that

towns and cities tend to be significantly more unequal than rural areas, because more rich people (including the very rich) stay in them and they are also home to the absolutely destitute. Across developing countries, including those in South Asia, urban areas exhibit considerably greater inequalities of assets, income flows and consumption patterns than do rural areas. What is more, in many countries there is evidence that urban inequality has been increasing at a faster rate than rural inequality, driven by growth patterns that privilege those who are already better off in society.

There are huge inequalities arising from public provision—or the lack of it—in urban areas. Even for pure public goods that are non-rival and non-excludable, the extent to which people are affected by their underprovision varies greatly depending upon assets and income. So, while all urban residents face problems without adequate sewerage and drainage systems, paved roads, street lighting, waste disposal and piped water, it is well known that these tend to be even less provided for in areas (such as slum dwellings and shanty towns) where the poor are concentrated. In any case the better-off households are able to make alternative arrangements by purchasing goods and services through private suppliers that the poor cannot afford. With inadequate electricity or frequent and prolonged power cuts, the rich and middle class acquire diesel gen sets and battery inverters; with non-potable drinking water supply, they purchase bottled drinking water or install purifiers in their homes; and so on. These problems of inequality are particularly acute where—as in South Asia—much urbanization has been relatively rapid and unplanned.

Even pure public bads—such as atmospheric pollution—are much worse for the poor, who are usually forced to spend longer hours in polluted conditions for work or commuting and are less able to afford the costs (such as loss of working days and cost of healthcare) that arise out of pollution-related illnesses. Natural disasters disproportionately kill poor peo-

Problems of inequality are particularly acute where urbanization has been relatively rapid and unplanned

The specific nature of urban conglomerations means that public intervention is not only desirable but absolutely inevitable

ple, often because they live in conditions in which sufficient safety precautions have not been taken, such as secure foundations for buildings to prevent earthquake damage or protection against tsunamis in coastal areas or facilities to reduce vulnerability to storm damage.

The story is similar for merit goods. The poor are also adversely affected by the lack of adequate and clean sanitation facilities, good quality public healthcare and schooling, since they do not have the resources to ensure access to private suppliers. Meanwhile other important public services like policing often have very unequal features to them and operate to increase inequalities further. This is both because of the class and gender constructions of society that change the power balances for poor people and women in particular, as well as the unbalanced structure of incentives for such service providers.

A major part of urban inequality arises not just from different income and employment possibilities but from differential control over assets. Naturally, land and housing are important parts of this—although in many cities financial assets are also significant in determining inequality. Many developing countries exhibit highly polarized urban land markets, with real estate prices in general ruling very high relative to annual per capita GDP. Indeed, it has been estimated that such ratios may possibly be the highest in the world in the ‘affluent’ or ‘desirable’ areas of the mega-cities of South Asia.¹⁵ The high and rising land prices in urban areas are certainly related to bubbles generated by financial markets combined with accommodative monetary policies. But they are also reflective of increasing inequality that results in significant wealth and income increases from black, white and foreign sources for a chosen minority that also tends to have greater political voice and lobbying power.

It has been noted that urbanization in South Asia contains many features that significantly add to inequality within them.¹⁶ Towns and cities tend to be unwelcoming of rural migrants and even of mi-

grants from other urban areas who come from other regions and linguistic groups. Poor migrants in particular are less welcome and therefore their existence is made constantly more difficult and fragile by the unwillingness of authorities to ensure their social and economic rights, aided by the antipathy of prior residents who nonetheless benefit from their cheap labour. In addition, cities and towns tend to be major locations for displacement of villagers and slum dwellers from land and livelihoods, often without adequate compensation or rehabilitation, and this necessarily increases inequality. Many mega-cities attempt to cope with the phenomenon of increasing slum settlements by simply pushing the poor out to the periphery, which in turn increases their fragility and multidimensional poverty. At other times, the process of ‘gentrification’ leads to the opposite tendency of the creation of new suburban settlements for the elites and middle classes, bypassing the squalor of the mass urban poor.¹⁷

The role of the state in creating viable urban societies

The specific nature of urban conglomerations means that public intervention is not only desirable but absolutely inevitable. Indeed, the discussion above has highlighted the various problems and concerns that can and do emerge when unregulated activities, including purely profit-oriented or market-oriented behaviour is allowed without concern for externalities and broader social and political implications. The role of governments in urban areas can be considered in terms of pure public goods; merit goods and services; specific interventions that improve access and quality of life for all; rules, regulations and norms as well as the manner of their implementation; and specific types of social protection that may be universal or cater to the weakest and most marginal sections. The extent to which states can fulfil these roles is a comment on their motivation and effectiveness as well as the resources avail-

able to them—and it is fair to say that in South Asia, these responsibilities are at best only imperfectly met.

The crucial role of social policy—particularly in the universal provision of essential and good quality goods and services—has already been noted and cannot be underestimated. Equitable and inclusive development requires that all members of the society gain (even if not equally) from the benefits of growth. Indeed, this may become an essential aspect of the social contract between capital and labour specifically for the management of the development project. But the benefits of economic growth do not automatically accrue to all in reasonable, let alone equitable proportions. Therefore, one major goal of social policy should be the redistribution of incomes to ensure greater equity, or ensuring greater spread of the benefits of increasing incomes. More broadly, social policy is seen as necessary not only for redistributing the gains from growth, but also for providing access to food and ensuring nutrition at affordable prices, enhancing the capability of individuals with less or poor endowments to participate in economic activity, be employed and engage with markets, providing security against circumstances like ill health, accidents and natural calamities, ensuring equitable, high quality education and health and protecting those who may not be able to fend for themselves such as the aged, children and persons with disabilities.

It can easily be shown that all these serve as instruments of development. More and better livelihood opportunities and equitable distribution of income expand markets and enhance the potential for economic growth. By guaranteeing livelihoods and a more egalitarian distribution of income, social policy enhances the share of GDP going to the lower income segments of the population. These sections of the population devote a higher proportion of their income for consumption. That results in increasing demand for goods and services. The increase in demand leads to greater production and employment, which in

turn further increases (multiplies) demand for a wide range of goods and services. These multiplier effects encourage new investment and hence lead to economic development and growth.

At the most basic level, social policies of different types are crucial to the state's capacity to 'manage' modernization, and along with it the huge economic and social shocks that are necessarily generated. So when overenthusiastic and possibly insensitive developmental projects overturn existing local communities or destroy material cultures without satisfactory replacement, social policy can become the basic instrument for rehabilitation and renewed social integration. It also provides a source of legitimization—not only of the state, but of the development project itself, which is especially important in growth trajectories that rely on high investment and savings rates, thereby suppressing current consumption in favour of high growth for larger future consumption. Social policy can also serve as a cushion for dampening the worst social effects of cyclical volatility and crisis. It can positively affect the conditions of labour such that there is an increase in the aggregate social productivity of labour through the universal provision of good education and basic health services. Historically it has played a very important but largely unsung role in terms of underwriting a significant part of labour costs for private capital thus providing employers greater flexibility and contributing to their external competitive strength. Overall, therefore, social policy can increase social cohesion, reduce gender discrimination, ensure the legitimacy of the political order and contribute to political stability, which in turn is essential for any sustainable economic growth process.

It has been argued (Hernando de Soto) that the recognition of private property rights among the urban poor, particularly in slum settlements, would play a positive role in ensuring higher growth and reducing poverty. This is because it would provide more security to them and enable them to access institutional credit,

By guaranteeing livelihoods and a more egalitarian distribution of income, social policy enhances the share of GDP going to the lower income segments of the population

It is necessary to make quality of life the more significant policy goal rather than increase in income alone

thereby contributing to production and productivity. However, it is a moot point whether that is the major constraint. If there is sufficient focus on improving basic infrastructure and providing utilities and major public services to the entire population and thereby, particularly to the slums and other informal settlements where they are underprovided, this would already facilitate growth and productivity improvements. Similarly, it is important to devise forms of credit access for small producers that are not based only on current assets but on potential earning power and assist these through cooperatives, community banks and the like that provide both secure savings and lending functions.

One still less recognized but very significant role of the state is in managing the ecological footprint of urbanization, which can be hugely destructive. Towns and cities tend to be massive generators of carbon emissions and they are also much more wasteful of other natural resources and more likely to cause or be associated with congestion, over-extraction and pollution. Obviously, therefore, planning for urban areas is of the essence and it needs to go beyond the standard approach to urban planning that looks only at land use patterns. In particular, attitudes to transport and the provision of adequate, affordable and efficient public transport systems are very important not only for improving the quality of life of all citizens but also for reducing pollution and congestion.

But for that to be meaningful, it is necessary to make quality of life the more significant policy goal, rather than increase in income alone. Unfortunately, the dominant policy vision of urban planning is still in terms of providing the engine of economic growth rather than a location of improving quality of life and enabling social solidarity and creativity.¹⁸

This has many adverse implications. For example, a congesting, chaotic, polluting and socially wasteful system of mostly privatized urban transport directly generates much more GDP than a clean, green, efficient and affordable public trans-

port system. This lack of concern of most public authorities is reflected not only in inadequate public investment for this. It also tends to be associated with an unfair fiscal regime for public transport organizations, such as a multiplicity of taxes and levies that pose a very heavy burden on such public service providers, rendering them less viable and reducing their coverage.¹⁹ Typically they are not even given greater priority on the roads. There is usually little or no integration between land use planning and transport planning and there are few strategies to improve the coverage and quality of public transport and incentivise its use relative to private transport.

State involvement in urban development and public service delivery is obviously better and more effective when it is responsive to people's needs and accountable to stakeholders. Therefore the democratization of public intervention is essential. It is also evident that in many parts of South Asia the rising awareness and mobilization among the citizenry makes such democratic accountability not only necessary but urgent and (hopefully) inevitable.

In conclusion, the role of the state in providing quality governance is critical to poverty reduction, human development and empowerment of people. Containing nearly one-fourth of humanity, South Asia has enormous potential. In fact, the region's recent record of growth highlights how much faster the region could have grown if it had been able to tackle its governance problems.

Several reform initiatives of South Asian countries in the wake of globalization, urbanization and emerging communication technologies testify to the region's commitment to improving governance. The success of macroeconomic performance in the region confirms that some parts of the state machinery in South Asia perform their tasks efficiently. The information and communications technology (ICT) revolution, especially the emergence

of India as the centre of growth, entrepreneurship and innovation, has brought an exciting transformation in the region. In addition, there is today greater participation of women in economic and political activities. The ability of governments and non-governmental organization (NGOs) in South Asia to take action in acute emergencies has improved appreciably.²⁰

However, despite different programmes and policies of reforms and re-organization to improve public administration, urban governance in many South Asian countries has failed to address adequately such issues as reducing poverty, ensuring quality of access to public services, providing security and safety to all citizens and implementing numerous policies framed by many committed professionals to empower the urban poor. In every country, bureaucracies have become increasingly politicized so that the quality

of administration has deteriorated. Transparency in governance has remained poor and accountability weak.²¹

The Report comes at a time when most countries of South Asia are witnessing governance inadequacies in providing justice and delivering basic services to all its urban residents irrespective of class, caste, ethnicity and gender. The huge absolute number of the poor, malnourished and illiterates in the mega-cities of the region is a testimony to the ineffectiveness of urban governance despite good GDP growth rates of most countries. In this Report we have made our modest effort to present issues related to urbanization in South Asia. There are many positives to feel good about South Asia. But could the governments have done better? The various chapters of this Report present both sides and provide some concrete suggestions for addressing urban challenges in South Asia.

There are many positives to feel good about South Asia. But could the governments have done better?

Urbanization in South Asia

South Asia is both the least urbanized region in the world with about 30.9 per cent of its population living in urban areas, and amongst the fastest urbanizing regions with an average urban population growth rate of about 3 per cent per year since the 1980s.¹ This rapid urbanization has posed both opportunities and challenges for the region.

Urbanization is supposed to be a key indicator for economic and social development with cities acting as the centre of economic growth, generating investments and providing employment opportunities. Cities are also seen as bringing social transformation, mainly through better education opportunities, improved health facilities and better access to a variety of services including transportation, communication, water supply, sanitation and waste management.

On the other hand, urban development in South Asia is also associated with accentuating inequality, with poor people bearing the brunt of the negative aspects of urbanization. These are manifested in the form of inadequate housing resulting in crowded slums, poor water and sanitation facilities and high cost of access to other basic services.

Faced with numerous opportunities and challenges associated with urbanization, the question that this Report tries to answer is: Can this process be managed in a way that will enhance its overall implications for economic productivity and efficiency, distribution of resources and access to services while reducing poverty? This chapter presents urbanization trends in South Asia, determines the sources of urban growth and analyses demographic, economic and social characteristics of urbanization in the region.

Urbanization trends in South Asia

The degree of urbanization

Globally over the last several decades the process of urbanization has continued unabated. Now urbanization has reached a point where more than half of the world's population lives in urban areas. However, all the regions of the world have not yet reached this level of urbanization. According to the United Nations Department of Economics and Social Affairs (UNDESA's) Population Division, Asia and Africa lag behind the rest of the world in the level of urbanization (table 2.1).

South Asia, in comparison with other sub-regions of Asia and the rest of the world, is amongst the least urbanized with around 69 per cent of its population residing in rural areas (table 2.1). However, by virtue of its population size, South Asia has great significance in the global urban hierarchy. Three of the eight countries,

Table 2.1 Urban and rural population in the world by regions, 2011

	Urban (thousands)	Rural (thousands)	Total (thousands)	% of total population living in urban areas
North America	285,805	61,758	347,563	82.2
Latin America and the Caribbean	472,175	124,454	596,629	79.1
Europe	539,010	200,289	739,299	72.9
Oceania	26,280	10,895	37,175	70.7
Asia	1,895,307	2,312,140	4,207,448	45.0
West Asia	160,711	76,146	236,858	67.9
East Asia	878,586	702,059	1,580,646	55.6
Southeast Asia	268,064	331,961	600,025	44.7
Central Asia	24,974	36,467	61,442	40.6
South Asia	511,309	1,142,369	1,653,679	30.9
Africa	413,880	632,043	1,045,923	39.6
World	3,632,457	3,341,579	6,974,036	52.1

Source: UNPD 2014.

Bangladesh, India and Pakistan are amongst the most populous countries of the world. Together they account for more than one-fifth of the world's population. The contribution of South Asia to the world's urban population has been increasing; from close to 10 per cent in 1950, to 14 per cent in 2011, it is estimated to increase to 19 per cent by 2050.²

The region is in the midst of a rapid urban transition (figure 2.1). Over the past six decades, South Asia's urban population has risen steadily, from 74 million in 1950 to 511 million in 2011. The level of urbanization, as indicated by the percentage of total population residing in urban areas, has increased from 15.6 per cent in 1950 to 30.9 per cent in 2011. During the next four decades, the urban population of South Asia is expected to more than double, from 511 million to 1.19 billion. By that time the region is expected to have more than half the population residing in urban areas.

This sustained increase in the urban population is accompanied by a less

pronounced deceleration of rural population growth in South Asia. The outcome will be visible over the next four decades, during which time urban areas of South Asia are expected to absorb all the growth in population, while simultaneously drawing in some of the rural population. As a result, South Asia's rural population is projected to decrease by 2035.³

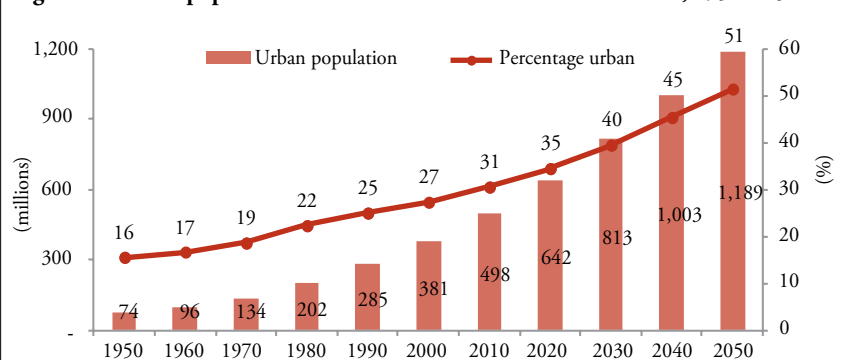
South Asia is urbanizing at a rate greater than the rest of the world. As indicated by table 2.2, the growth rate of the urban population for South Asia is higher compared to that of the world. Between 1950 and 2010, the world urban population increased at an average rate of 2.6 per cent per year. This is expected to decline to 1.4 per cent between 2010 and 2050. For the South Asian region, the level of urbanization is expected to increase over the next four decades and the region alone would contribute one-fourth of the increase in the world's urban population—690 million of the expected 2.6 billion.⁴

The diversity of urbanization

Urbanization trends in South Asia are uneven, mainly due to the region's large size and diversity. While India dominates regional trends, as it comprises 75 per cent of South Asia's demographic mass, significant variations lie within India. Except for the Maldives, Pakistan is the most urbanized country in South Asia with around 36 per cent of the population residing in urban areas (table 2.3). In contrast, Sri Lanka and Nepal are the least urbanized countries, with around only 15 per cent and 17 per cent of the population living in urban areas. India's degree of urbanization and pace of urbanization is relatively low, however the number of people living in urban areas has kept increasing due to a large base of the urban population. With around 31 per cent of the country's total population in urban areas, India still accounts for three-fourths of South Asia's urban population.

In general four distinct patterns of urbanization have emerged in South Asia.

Figure 2.1 Urban population and level of urbanization in South Asia, 1950-2050



Source: UNPD 2014.

Table 2.2 Rate of urbanization in the world and South Asia, 1950-2050

	Urban population (thousands)		% of total population living in urban areas		Annual rate of change of urban population (%)	
	World	South Asia	World	South Asia	World	South Asia
1950	745,495	73,541	29.4	15.6	...	...
1980	1,753,229	202,314	39.4	22.3	2.89	3.43
2010	3,558,578	498,348	51.6	30.6	2.39	3.05
2050	6,252,175	1,188,704	67.2	51.5	1.42	2.20

Source: UNPD 2014 and MHHDC staff computation.

- Pakistan, Bhutan and the Maldives combine high urbanization levels (exceeding 35 per cent of the population) with high urban growth rates (more than South Asia's average). If these trends persist, these countries will be the first in the South Asian region to reach the 50 per cent threshold, within the next few decades. In the case of the Maldives this could be as early as by 2020.
- India shows a moderate level of urbanization (slightly above 30 per cent) with a low rate of urban growth (2.87 per cent). Despite this, it will still dominate overall urbanization trends in South Asia.
- Afghanistan, Bangladesh and Nepal match moderate to low levels of urbanization with high rates of urban growth (exceeding 4 per cent and in the case of Nepal more than 5 per cent).
- Another pattern of urbanization is evident in Sri Lanka, combining a low level of urbanization (only 15 per cent) with a low rate of urban growth (only 0.37 per cent).

As figure 2.2 shows, Pakistan is the most urbanized country in South Asia since 1950. Afghanistan, Nepal and Bangladesh starting with low levels of urbaniza-

Table 2.3 Urbanization in South Asia, 2011

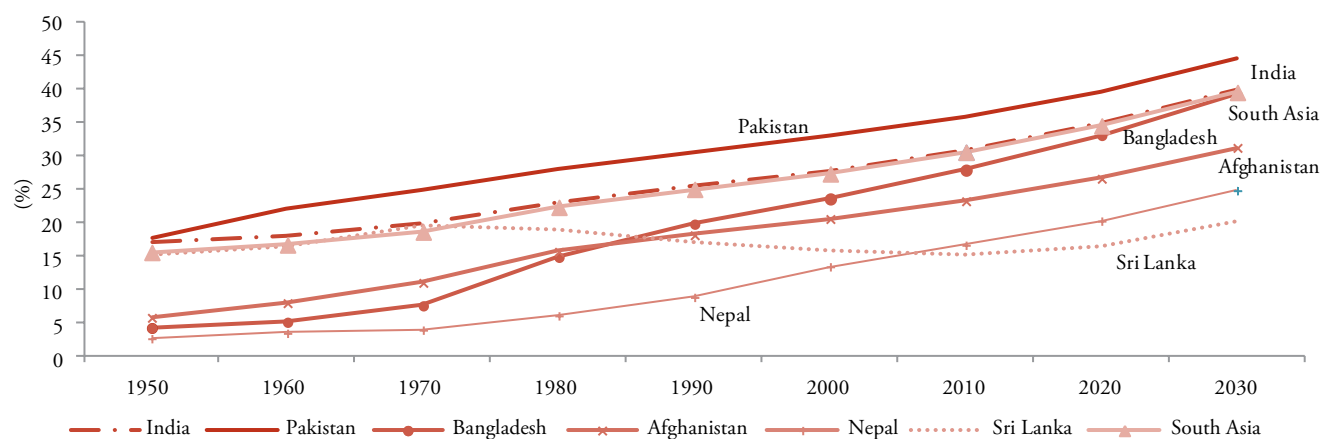
	Urban population (thousands)	% of total population living in urban areas	Annual rate of change of urban population (1980-2011), (%)
India	388,286	31.3	2.87
Pakistan	63,967	36.2	3.41
Bangladesh	42,698	28.4	4.19
Afghanistan	7,613	23.5	4.05
Nepal	5,176	17.0	5.74
Sri Lanka	3,175	15.1	0.37
Bhutan	263	35.6	5.96
Maldives	132	41.2	4.38
South Asia	511,309	30.9	3.04

Source: UNPD 2014.

tion have been urbanizing at a very rapid pace. In contrast, Sri Lanka has been witnessing a decline in the level of urbanization; it is projected to rise only after 2015. India matches the urbanization trends of the region.

Since progress in urbanization in India is determined by its rapid economic growth, it is not surprising that India's urbanization is dominated by six most developed states, namely Maharashtra, Gujarat, Tamil Nadu, Karnataka, Punjab and West Bengal. Together these states account for about half of the urban population of India.⁵ In less developed states like Himachal Pradesh, Sikkim, Bihar, Orissa and Assam, the degree of urbanization has been very low.

Figure 2.2 Proportion of population living in urban areas in South Asia, 1950-2030



Source: UNPD 2014.

Rural to urban migration, natural increase in urban population and reclassification of areas from rural to urban or expansion of urban boundaries are the three main factors behind urban growth

Urbanization in Pakistan is also very unevenly distributed, with pockets of high and low urbanization. Sindh is the most urbanized province with 50 per cent of the population living in urban areas.⁶ Urbanization in Sindh is dominated by Karachi. Punjab carries the highest proportion of the urban population of Pakistan, 53 per cent of the total urban population of Pakistan lives in Punjab. Urbanization in Khyber Paktunkhwa (KPK) and Balochistan is low, 17 and 25 per cent respectively and mostly dominated by provincial capitals, Peshawar and Quetta.⁷

In Bangladesh, as in the case of India and Pakistan, urbanization is very unevenly distributed. More than half of the total urban population in Bangladesh lives in four cities: Dhaka, Chittagong, Khulna and Rajshahi. Dhaka alone accounts for about 40 per cent of the total urban population of Bangladesh.⁸

Nepal is amongst the least urbanized countries in South Asia, with about 17 per cent of its population living in urban areas. However, it is also amongst the fastest urbanizing countries, with an average urban population growth rate of about 6 per cent per year (table 2.3). Nepal's demographic transformation is characterized by the rapidly urbanizing Kathmandu Valley. Kathmandu accounts for about one-third of the country's urban population and continues to sustain a fast pace of urban population growth of about 3.9 per cent per year.⁹

Afghanistan has experienced modest levels of urbanization. Its urban population has increased gradually from 0.5 million in 1950 to 7.6 million in 2011 and is expected to reach 16.6 million by 2030. However, much of this urbanization has been influenced by political instability and conflicts, forcing people to move from conflict prone areas to the relatively stable capital city of Kabul. As a result, Kabul's population has grown by around 5 per cent annually.¹⁰

In contrast, urbanization in Sri Lanka is low and has been facing a decline. The degree of urbanization in 1990 was 17.2 per cent, 15.7 per cent in 2000 and

15.1 per cent in 2011.¹¹ In part, low levels of urbanization could be due to anomalies in defining urbanization, which in the case of Sri Lanka is based on an administrative classification and is very restrictive. Other South Asian countries have adopted a more diverse definition (see chapter 1).

Sources of urban growth

Rural to urban migration, natural increase in urban population and reclassification of areas from rural to urban or expansion of urban boundaries are the three main factors behind urban growth. Together they determine the extent of urbanization.

While all three factors are vital for determining urbanization levels, the influence of a particular factor may dominate others. For example, in general fertility levels are lower in urban areas as compared to rural areas, therefore in relative terms, migration and reclassification of urban areas become the dominant factors influencing urbanization. Nevertheless, the contribution of natural increase to urban growth can still be significant, especially in countries where fertility levels are high and the overall population is large.

The influence of one factor over another varies from country to country or within regions, depending on several demographic, economic and social factors. According to the United Nation's Population Division, natural increase in population accounts for over half of urban growth in the majority of countries in Africa, Asia and Latin America and the Caribbean.¹² Analysis based on the Census data for individual countries in South Asia also reveals similar results.¹³

For example, in Pakistan natural increase in population contributes 70 per cent towards urban growth. This is followed by net rural to urban migration (20 per cent) and the remainder 9.7 per cent of urbanization is due to reclassification of boundaries (table 2.4). While population growth is the predominant factor contributing towards urbanization, in Sindh and Balochistan provinces, internal migration also emerges as a dominant factor with a

share of 25 per cent and 38 per cent respectively. In KPK, reclassification of urban boundaries (21 per cent) follows natural increase in population as an important contributor to urbanization (table 2.5).

In India, natural increase in the urban population accounts for 58 per cent of total urbanization. It contributed 39.3 million people to the urban population between 1991 and 2001. This is followed by rural to urban migration (21 per cent) and 12.3 per cent due to the reclassification of areas from rural to urban (table 2.6). In India, merger of towns and cities with urban areas is also an important factor contributing towards urban growth. The share of urban agglomeration has increased significantly between 1981-91 and 1991-2001. Around 221 towns were merged with neighbouring towns and cities between 1991 and 2001.¹⁴

Unlike Pakistan and India, in Bangladesh, migration from rural to urban areas is the dominant factor in urbanization. Migration contributed around 40 per cent to urban growth and in some large cities like Dhaka, the migration share is around 70 per cent.¹⁵ In Nepal, reclassification of rural into urban areas is an important driver of urban growth. Reclassification accounted for 50 per cent of urban growth in Nepal between 1991 and 2001. The government has recently proposed creation of 41 new municipalities, increasing the percentage of the urban population in Nepal from the current 17 per cent to 21 per cent.¹⁶

Dynamics of migration

Migration occurs due to a combination of pull and push factors. Pull factors include better job opportunities along with higher wages and improved access to services and better standards of living in urban areas. Population pressures, landlessness, poverty and lack of social and cultural opportunities are important push factors encouraging migration from rural to urban areas.

Rural to urban migration is an important driver of urbanization in South Asia. In Pakistan, India and Bangladesh,

the three most populous countries of South Asia, rural to urban migration contributes significantly towards urbanization. In Bangladesh, for example, failure of the agricultural sector to absorb surplus labour and to provide sufficient employment and income generating activities is a major factor forcing rural to urban migration. In contrast, the thriving garment industry in Dhaka provides sufficient employment opportunities, leading to rapid urbanization of Dhaka city.

The region has witnessed a major stream of migration particularly from poor and crowded areas to large cities and prosperous areas. In Pakistan, around 8 per cent of the total population is classified as migrants, 64 per cent of these have settled in urban areas. Twenty-five per cent of all migrants have settled in three of the largest cities of Pakistan: Karachi, Lahore and Rawalpindi. Karachi alone has accommodated around 13 per cent of total

Table 2.4 Sources of urban growth in Pakistan (national), 1951-98
(%)

Period	Natural increase	Internal migration	Reclassification
1951-61	44.8	40.1	15.1
1961-72	72.4	19.5	8.1
1972-81	78.4	19.1	2.6
1981-98	70.3	20.1	9.7

Source: Hasan and Raza 2009.

Table 2.5 Sources of urban growth in Pakistan (by regions), 1981-98
(%)

Region	Natural increase	Reclassification	Internal migration
Punjab	74.2	11.3	14.5
Sindh	70.6	4.5	24.8
KPK	70.0	20.9	9.1
Balochistan	43.7	18.4	37.9
Islamabad	35.1	...	64.9

Source: Hasan and Raza 2009.

Table 2.6 Sources of urban growth in India, 1981-2001

Component	Population (million)		Percentage distribution	
	1981-91	1991-2001	1981-91	1991-2001
Natural increase	35.4	39.3	62.3	57.6
Reclassification	9.8	8.4	17.2	12.3
Rural-urban migration	10.6	14.2	18.7	20.8
Urban agglomeration	1.0	6.3	1.8	9.2

Source: Bhagat and Mohanty 2009, based on GOI 2001.

Forced migration due to natural disasters or conflicts has also contributed significantly to increasing urbanization in the region

migrants.¹⁷ The city has witnessed a major wave of migration with people from all over the country especially Pashtuns from KPK, moving to Karachi. The influx of Afghan refugees from Afghanistan to Pakistan has also increased the level of urbanization in Pakistan.¹⁸

In India, the states of Maharashtra, Gujarat and Punjab have attracted large numbers of migrants. Around 3.2 million people have migrated to Maharashtra between 1991 and 2001, with the port city of Mumbai receiving the majority of the migrants. Migrants from Uttar Pradesh, Karnataka, Bihar, Madhya Pradesh, Andhra Pradesh and Rajasthan have contributed significantly to the urbanization of Mumbai. During 1991-2001, Delhi has also urbanized very rapidly with an influx of 1.7 million people largely coming from Uttar Pradesh, Bihar, Jammu and Kashmir, Rajasthan and from Nepal. The state of Gujarat has also urbanized rapidly, receiving 0.67 million migrants, mostly coming from Uttar Pradesh, Rajasthan, Bihar and Orissa. Tamils from the north of Sri Lanka have also migrated to Tamil Nadu in India in large numbers. Similarly, migrants from Bangladesh have also settled in states in Northeastern India and in West Bengal (Kolkata), increasing urbanization of these areas.¹⁹

In Nepal, migration of Nepalis from highlands to lowlands is resulting in rapid urbanization. Around 45 per cent of Nepal's urban population comprises migrants from various areas and migration contributes around one-third of Nepal's urban growth. In Nepal, Kathmandu has the largest inflow of net urban migration among urban areas. Migration contributes as much as 40 per cent to urban growth in Kathmandu.²⁰ Migration from Nepal to Delhi, has also contributed significantly to urbanization in Delhi.²¹

Migration from rural areas to Dhaka in Bangladesh is a major factor contributing towards the rapid rise of Dhaka as a mega-city. According to the *State of Cities: Urban Governance in Dhaka* report, every year around 300,000 to 400,000 mi-

grants move to the city from different parts of Bangladesh.²²

Forced migration due to natural disasters or conflicts has also contributed significantly to increasing urbanization in the region. Internal conflict in Afghanistan has resulted in increased urbanization as people have been forced to migrate either internally as well as abroad (box 2.1). In Pakistan, natural disasters like the earthquake in 2005 and floods in 2010 and 2012 have forced people to move to cities in the vicinity or even to far flung cities. Displaced people move to the cities primarily to find shelter and basic support, but tend to stay back in search of better employment opportunities.

Rural to urban migration can create problems and benefits, for both the areas that people migrate from and the areas they migrate to. To some extent it is beneficial for cities, as it provides labour for several economic activities. Remittances from migrants have influenced urbanization trends and have improved standards of living in both urban and rural areas. Within South Asia remittances are an important source of income, ensuring economic security and in most cases providing the means for saving and investment.²³

In South Asia rapid and unanticipated migration has intensified pressures on limited urban land, the environment and urban services, which in most cases are already inadequate and weak.²⁴ In Bangladesh, for example Dhaka has witnessed rapid urban decay as the growth rate of Dhaka's population has outpaced the rest of the country. Access to basic services, water, sanitation and electricity is poor in Dhaka. Rapid urbanization is creating problems for effective transport management and increasing health risks due to water and air pollution. An increase in the slum population is another indication of the limited capacity of the city to provide adequate housing facilities to migrants.²⁵ In India, urban housing is posing significant challenge for sustainable urbanization as there has been significant growth in urban slums and squatter settlements. Nearly

Box 2.1 The Afghan conflict: Migration, urbanization and its consequences

Migration—either voluntary for economic reasons or involuntary due to conflicts or natural disasters—has a long history in Afghanistan. Twenty-five years of conflict has made Afghanistan one of the countries most affected by forced migration both from and within its borders. It is the largest country of origin for refugees.

In the early 1990s, 7.5 million people were displaced: 3.2 million registered as refugees in Pakistan; 2.4 million in Iran; and approximately 2 million within Afghanistan's borders. Around five million refugees have returned since 2002, when the conflict ended, however political and economic instability due to the presence of the international forces has resulted in new internal displacement within Afghanistan and abroad. In 2009, there were more than 1.9 million Afghan refugees living abroad, with 54 per cent in Iran and 40 per cent in Pakistan.

Between June 2009 and March 2011, the number of internally displaced people (IDP) in Afghanistan increased by 2.13 million. The total number of internal

migrants in March 2011 was around 4.1 million. A large proportion of these people settled in urban centres, often in the form of informal settlements. Overall, 50 per cent of the IDPs are located in identifiable urban and semi-urban locations. In the past 10 years, Kabul experienced a near two-fold increase in its population, which went from 1.78 million inhabitants in 1999 to 2.9 million in 2009. Other cities such as Kandahar, Herat and Khost follow similar patterns.

Conflict and insecurity are the main push factors leading to the displacement. Conflict not only had a direct role in shaping migration movements in Afghanistan, but its indirect effects are implicated through loss of assets, destruction of physical and social infrastructure and loss of livelihoods. Economic incentives, on the other hand, act as important pull factors towards urban centres. In Afghanistan, more than 90 per cent of IDPs settled permanently in cities, an important factor being better employment opportunities compared to unemployment, lack of land

and food insecurity in their areas of origin.

The consequences of migration are not promising. Most of the IDPs end up in informal settlements with inadequate access to shelter, land, water and sanitation, food and livelihood opportunities. While throughout Afghanistan, access to basic services is low, the development of informal settlements has further exacerbated the level of deprivation of their inhabitants. Many of these IDPs live in hazardous housing conditions; about 60 per cent live in a tent, temporary shelter or shack. Low levels of education and lack of skills to adapt to the urban economic environment make economic and social integration of IDPs difficult in urban areas. IDPs generally have access to low earning jobs. In Kabul, 92 per cent of the IDP workforce is employed as casual daily labour while the majority of male poor household heads are self-employed. IDPs have a much higher level of deprivation than the urban poor, with potential negative impacts on health outcomes.

Sources: World Bank and UNHCR 2011 and IOM 2008.

35 per cent of urban households live in extremely crowded conditions and around 24.71 million households in urban areas are facing housing shortages.²⁶ According to the National Sample Survey Organization (NSSO), 40-50 per cent of the urban population lacks safe drinking water and basic sanitation whereas other human development indicators for urban areas such as infant mortality rates (IMRs), life expectancy and literacy rates continue to be below the country's expectation.²⁷

While it is difficult to restrict rural to urban migration by imposing barriers to entry in urban areas, sometimes efforts to control urbanization by providing incentives to stay in rural areas have been successful. For example, in India, the National Rural Employment Guarantee Scheme (NREGS) reduced total rural to urban migration by around 28 per cent between 2006 and 2008.²⁸ Analysis of the causes of migration reveals that employ-

ment related migration reduced by 59 per cent during the same period. By promising every rural household 100 days of unskilled wage employment at a guaranteed minimum wage, the scheme has indirectly controlled the movement of people out of rural areas.²⁹ Bangladesh has frequently resorted to strict administrative measures like anti-slum drives to force people out of urban areas.³⁰ Sri Lanka has enhanced road connectivity to encourage people to commute daily to urban areas for work while residing in rural outskirts. An estimated 400,000 to 500,000 people travel daily to Colombo and similarly, Kandy has a floating population of 150,000 commuters in contrast to a local population of 124,000.³¹ More recently, Sri Lanka has planned to reduce the pressure on Colombo by introducing an urban regeneration programme which aims to develop new urban centres in Hambantota, Galle, Dambulla, Matara and Trincomalee.³²

Characteristics of urbanization in South Asia

South Asian urbanization is defined by economic growth, high population density and mega-cities. And it is challenged by poverty, inequality, poor social and physical infrastructure and slums.

Economic growth

In South Asia, as in the other regions of the world, cities have become engines of economic growth, attracting a large number of people and generating significant economic activity. As cities are growing bigger and new towns and cities are emerging, their contribution to national income and the economy has also increased significantly. According to UN-ESCAP, urban centres in South Asia contribute three-fourths of the region's gross domestic product (GDP) (see chapter 3).³³

Over the last few decades urban areas and their contribution to the national economy has grown rapidly in South Asia. As indicated in table 2.7, a few large cities of South Asia are the key drivers of economic growth in the region. In India, the economy is dominated by a few large cities; Mumbai, Delhi and Kolkata. Similarly in Pakistan, Karachi, Lahore and Faisalabad contribute significantly to Pakistan's economy. In Bangladesh, Dhaka and Chittagong dominate economic trends. By 2025, Mumbai and Delhi will be amongst the world's top 20 urban economies.³⁴

Urbanization induces agglomeration benefits to the economy and enhances economic productivity of a city. For firms, agglomeration is beneficial as they are located near customers and suppliers, reducing transportation and communication costs. They also benefit from easy availability of labour. Workers benefit from a wide range of employment opportunities. In Pakistan, Sialkot for surgical instruments and sports goods, Faisalabad for textiles, Tirrupur in India for knitwear and Hyderabad for pharmaceuticals are successful examples of agglomeration economies (see chapter 3).

Table 2.7 GDP of selected South Asian cities and their contribution to the economy, 2008 and 2025
(US\$ billions)

Cities/urban agglomerations	GDP (2008)	Estimated GDP (2025)
Mumbai	209	594
Delhi	167	482
Kolkata	104	298
Dhaka	78	215
Karachi	78	193
Chennai	...	191
Hyderabad (India)	58	170
Ahmedabad	49	145
Pune	...	142
Lahore	40	102
Surat	36	107
Kanpur	26	76
Jaipur	24	71
Chittagong	24	67
Lucknow	22	66
Kabul	...	41
Faisalabad	14	37

Source: PWC 2009

In India, the share of urban centres in the national economy has increased over the years (figure 2.3). In the 1970s, the share of urban areas to national net domestic product (NDP) was 37.7 per cent, this has increased to more than 50 per cent of India's NDP. Within this, mega-cities have the highest concentration of economic activities. The services sector, especially information and communications technology (ICT) and the export-based manufacturing sector has witnessed considerable growth. Most of these activities are based either in large cities or city suburbs.

In Bangladesh, high economic growth rates of over six per cent have been sustained by the continuous growth of the garment industry and the real estate sector, largely concentrated in Dhaka and Chittagong. Dhaka alone accounts for 80 per cent of the garment industry of Bangladesh. It brings US\$8 billion which is about 75 per cent of overall export earnings.³⁵ The concentration of industrial activity in Dhaka and Chittagong has also stimulated expansion of associated business services and auxiliary activities that are producing agglomeration benefits to the urban econ-

omy.

Growth in the services sector has been a key driver of economic growth in South Asian countries (see chapter 3). While previously rural areas with its associated agricultural sector played a dominant role in the region's economy, now cities with their manufacturing and services sectors are dominant features of South Asian economies. Bangalore for example, contributes 32 per cent of India's software exports.³⁶ Similarly, in Lahore 42 per cent of the workforce are employed in finance, banking, real estate and social services sectors.³⁷

With increased globalization, international trade has been a significant source of economic growth. Therefore port cities, for example Karachi in Pakistan, Mumbai and Kolkata in India, Colombo in Sri Lanka and Chittagong in Bangladesh are relatively more urbanized than other cities and contribute significantly to economic development of the individual countries.

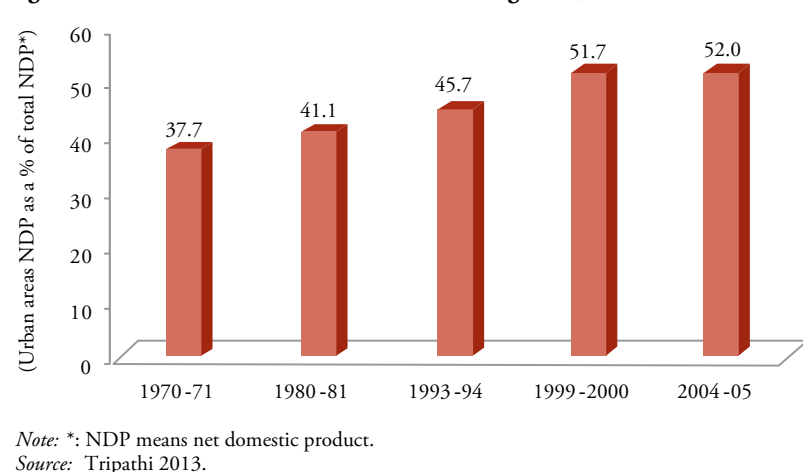
Many cities in South Asia have also improved their innovative capabilities and developed into knowledge economies. Bangalore in India, with its highly advanced ICT sector has developed into a hub for global ICT services. It is the world's fourth largest ICT cluster and houses more than 500 major international companies. It accounts for more than 35 per cent of Indian software exports and employs over one-third of ICT professionals in India.³⁸

Similarly financial services have also emerged as a driver of urbanization and economic growth. In South Asia, India has made efforts to turn Mumbai into an international financial centre on the pattern of Tokyo, Singapore, Hong Kong and Shanghai.³⁹ Karachi also has the potential to emerge as a regional financial hub.

Population density

South Asian cities have a very high population density. According to an independent analysis in 2007, out of the 20 densest cities in the world, sixteen are in Asia—six of them alone in South Asia.⁴⁰ Mumbai, with

Figure 2.3 Urban contribution to India's economic growth, 1970-2005



an average of around 30,000 people per square kilometre is the densest city in the world, followed by Kolkata and Karachi. More recent analysis shows Dhaka's population density at around 34,000 people per square kilometre, making Dhaka amongst the most densely populated cities in the world.⁴¹

Both the population size and the geographical expansion of the city are important factors in determining population density. While Tokyo, New York, Seoul, Sao Paulo, Mexico and Osaka have a population higher than Mumbai and other dense South Asian cities, their land areas are significantly larger. New York is 18 times bigger than Mumbai and Tokyo, with more than double the population of Mumbai is fourteen times bigger (table 2.8).

High density cities demand better

Table 2.8 Population, land area and population density of selected world cities, 2007

Rank	City	Population (thousands)	Land area (square kilometres)	Density (people per square kilometre)
1	Mumbai	14,350	484	29,650
2	Kolkata	12,700	531	23,900
3	Karachi	9,800	518	18,900
6	Seoul	17,500	1,049	16,700
13	Delhi	14,300	1,295	11,050
25	Sao Paulo	17,700	1,968	9,000
27	Mexico City	17,400	2,072	8,400
38	Osaka	16,425	2,564	6,400
50	Tokyo	33,200	6,993	4,750

Source: City Mayors 2007.

public services, like improved transportation to facilitate commuting, efficient land markets for improved land use and better access to infrastructure like roads, water and sanitation and housing facilities. Unfortunately, improvements in public services have not kept pace with increased urbanization.

Growth of mega-cities

An increased concentration of people in large cities and a growing number of mega-cities (with a population of over ten million) are dominant features of urbanization around the world as well as in South Asia. As indicated in figure 2.4, around 40 per cent of the urban population is residing in large cities with a population of over one million. This is significantly higher for Bangladesh and Pakistan where a majority of people are living in large cities. This concentration has gone up systematically over the decades; in 1990, 32 per cent of South

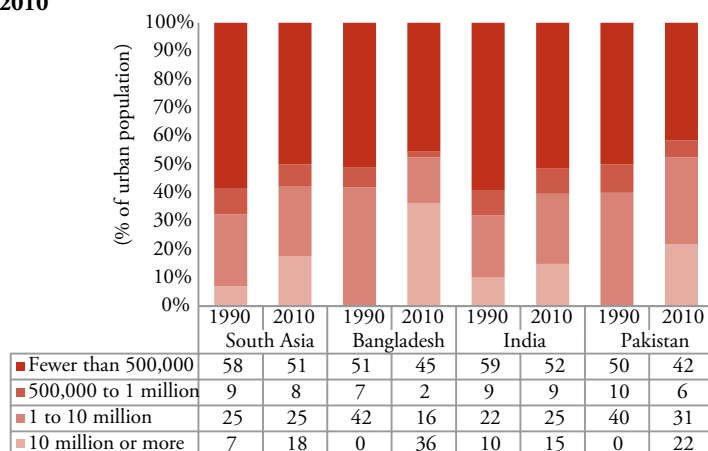
Asia's population was residing in large cities; in 2010 this has risen to 40 per cent. According to the estimates of the Population Division of the UN, the future urban population of South Asia would be increasingly concentrated in large cities of one million or more inhabitants. Even among the million plus cities, the mega-cities of at least 10 million inhabitants will experience the largest percentage increase.⁴²

The pattern of urbanization in South Asia is marked by a growing number of mega-cities. Five of the twenty three mega-cities of the world with a population of over ten million are located in the region. By 2015, two other South Asian cities, Bangalore and Chennai will join the ranks of mega-cities, increasing the number of mega-cities in South Asia to seven. Delhi, with a population of 23 million people is the second largest mega-city in the world. The mega-cities of South Asia are experiencing very high growth rates. Dhaka, Karachi, Delhi and Mumbai have growth rates in excess of 2 per cent per year—amongst the highest in the world (table 2.9). According to the estimates of the UN in 2025, Delhi (32.9 million inhabitants), Mumbai (26.6 million), Dhaka (22.9 million) and Karachi (20.2 million) will be four of the 10 cities worldwide, each with a population of over 20 million.⁴³

Despite the greater focus on large cities, urbanization in South Asia is distributed over a range of city sizes. As indicated in figure 2.4, half of the urban population in South Asia, about 253 million, resides in small and medium sized cities with a population of less than half a million inhabitants. For example in India, 197 million people, around 52 per cent of the urban population lives in small and medium sized cities. Similarly, for Pakistan 42 per cent, Bangladesh 45 per cent and Sri Lanka 78 per cent of the total urban population lives in cities with a population of less than 500,000 inhabitants.⁴⁴

However, as mega-cities have grown in prominence, the proportion of population in small and medium sized cities has decreased. Over the last two dec-

Figure 2.4 Proportion of urban population living in different classifications of cities, 1990-2010



Source: UNPD 2014 and MHHDC 2014 *Statistical Profile of Urbanization in South Asia*.

Table 2.9 Population of mega-cities in South Asia, 1970-2025

	Population (million)				Annual rate of change (%)
	1970	1990	2011	2025	2011-2025
Delhi	3.5	9.7	22.7	32.9	2.67
Mumbai	5.8	12.4	19.7	26.6	2.12
Dhaka	1.4	6.6	15.4	22.9	2.84
Kolkata	6.9	10.9	14.4	18.7	1.87
Karachi	3.1	7.1	13.9	20.2	2.68

Source: UNPD 2014.

ades, it has decreased from 58 per cent to 50 per cent across South Asia. In Pakistan, the percentage of the population living in small and medium sized cities has decreased by 8 percentage points, in India by 7 percentage points and in Bangladesh by 6 percentage points. While the proportion of population living in small and medium sized cities has decreased, the absolute number of people living in such cities has increased, indicating that urbanization is more concentrated in large cities.

The pattern of urbanization in India is slightly different from other countries in the region, as it is well spread out among different classes of cities. While there has been an increase in the number of megacities, the absolute number and the proportion of population living in cities with a population of 500,000 to one million and between one million and ten million has also increased. Such a pattern of urbanization is sustainable with less pressure on large cities. To some extent, the spatial distribution of India's population is policy induced, as India has tailoured urbanization trends through the establishment of urban corridors (box 2.2).

Challenges of urbanization

Urbanization followed by the rapid eco-

nomie growth of cities in South Asia has provided the opportunity for an improvement in social and human development outcomes. However huge challenges remain: poverty is still a major problem in the region, increase in the number of slums, inadequate infrastructure, shortage of water and power, poor solid waste disposal systems and far from satisfactory drainage and sewerage systems are prominent features of South Asian cities.

Poverty and inequality

While urbanization has fueled economic growth in South Asian cities, it has failed to alleviate poverty (see chapter 4). A large proportion of the urban population in each country still remains below the national poverty line (table 2.10), and considering the population of South Asian cities, it comprises a significant proportion of the world's poor. According to the World Bank, 'poverty is urbanizing' in South Asia as the proportion of urban poor to the number of total poor has increased over time.⁴⁵ On the other hand, urbanization to some extent has also helped in reducing poverty. In all the South Asian countries, poverty rates in urban areas are lower than in rural areas and urban poverty has declined over the years. Interestingly in India,

Box 2.2 Urban corridors in India

India is displaying a new form of spatial organization of urban areas known as urban corridors. This entails linking megacities along transportation routes connecting them with many fast growing towns, small and middle cities that lie between them. The Indian National Commission on Urbanization identified 49 such spatial priority urbanization regions. An example of such an urban corridor is between Delhi and Mumbai, stretching over 1,500 kilometres and passing through Surat, Ahmedabad and Ajmer. Another such corridor links Chennai in Tamil Nadu with Bangalore.

The Government of India planned the development of these corridors by launching a massive transportation infrastructure project to improve 25,000 kilometres of roads within these urban corridors. The golden quadrilateral—running from Delhi through Kolkata, Chennai, Mumbai and back to Delhi—is one such project. Similarly, the north-south route starting from Srinagar through Delhi, Nagpur, Hyderabad, Bangalore, Madurai and terminating at Kanyakumari, and the east-west route from Sihar in Assam through Guwahati, Muzaffarpur, Lucknow, Kanpur, Udaipur terminating

at Purbandar in Gujarat have been established.

Urban corridors help to increase urbanization with a diffused spatial development and without putting pressure on any one city. They carry economic benefits, stimulating business, industrial and real estate development. The Delhi-Mumbai Industrial Corridor aims to lead India's economic growth for the next 20 years, contributing 43 per cent to India's GDP and supporting more than half of India's industrial production and exports.

Sources: Heitzman 2008 and MGI 2010.

Table 2.10 Proportion of population under poverty lines in rural and urban areas*
(%)

	Rural	Urban		National
		Earlier	Latest	
India	25.7	25.7	13.7	21.9
Pakistan	27.0	14.9	13.1	22.3
Bangladesh	35.2	28.4	21.3	31.5
Afghanistan	37.5	27.0	29.0	36.0
Nepal	27.4	9.6	15.5	25.2
Sri Lanka	9.4	7.9	5.3	8.9

Note: *: Earlier figures are for: Afghanistan (2007), Bangladesh (2000), India and Pakistan (2004), Nepal (2003) and Sri Lanka (2002). Latest figures are for: Afghanistan (2008), Bangladesh, Nepal and Sri Lanka (2010), India (2012) and Pakistan (2006).

Sources: World Bank 2013h and MHHDC 2014 *Statistical Profile of Urbanization in South Asia*.

Table 2.11 Urban slum population in South Asia, 2009

	Slum population (thousands)	Proportion of urban population (%)
India	104,679	29.4
Pakistan	29,965	46.6
Bangladesh	27,542	61.6
Nepal	3,075	58.1

Source: UN-Habitat 2012b.

urban growth seems to reduce economic deprivations and poverty has tended to decrease with increasing city sizes. According to the *National Sample Survey 2009-10*, mega-cities show the lowest level of urban poverty (5 per cent), compared to 15 per cent in large cities.⁴⁶

However, the challenge for the region is that economic growth is not reaching out to the urban poor. While urban growth has had some positive impact in reducing poverty, the benefits have not been shared equally. Income and expenditure inequality in Nepal, Sri Lanka, Bangladesh, India and Pakistan has worsened between the 1990s and 2000s,⁴⁷ suggesting that urban economic growth has exacerbated inequalities. Taking examples from specific cities, despite economic progress in Dhaka, it has the greatest disparity between the rich and the poor in Bangladesh. Inequality in Dhaka is substantially higher compared to other emerging cities in Bangladesh—Chittagong and Khulna.⁴⁸ Similarly, inequality in the standards of living and earning is high in Delhi and Mumbai.⁴⁹

Urban slums

The number of slums is an indicator of extreme inequality in South Asian cities. According to the *State of the World's Cities 2012/13* report, slums accounts for around 35 per cent of the urban population in South Asia. As indicated in table 2.11, in Bangladesh, Nepal and Pakistan this proportion is around 50 per cent. In India, the number of people living in slums is more than the sum of the entire slum population of other South Asian cities.

The situation is worse in the few large cities which ironically are also the centres of growth in South Asia. In Mumbai, seven million people, around 60 per cent of Mumbai's population, live in 3,000 slums across the city. Similarly in Delhi, one in every two people is a slum dweller. In Dhaka, 40 per cent of people and in Colombo, 50 per cent are slum dwellers.⁵⁰ These overcrowded slums face acute problems of sanitation, drainage and safe drinking water, impacting health of the slum dwellers.

Infrastructure and services deficit

Rampant growth of slums in cities across South Asia has resulted in a huge strain on existing physical infrastructure. In addition to inadequate access to land and housing resulting in slums, all the major cities in South Asia are facing inadequate access to basic social services.

According to the *Mumbai Human Development Report 2009*, the increasing population of the city has limited access to basic human welfare facilities like health-care, education, roads and transportation and water and sanitation for a large segment of the population.⁵¹ For example, only 44 per cent of households in Mumbai have access to proper sanitation facilities. Water shortfall in Mumbai is estimated to be around 100 million litres per day, and there are significant concerns with regard to water quality.

The Kathmandu Valley in Nepal

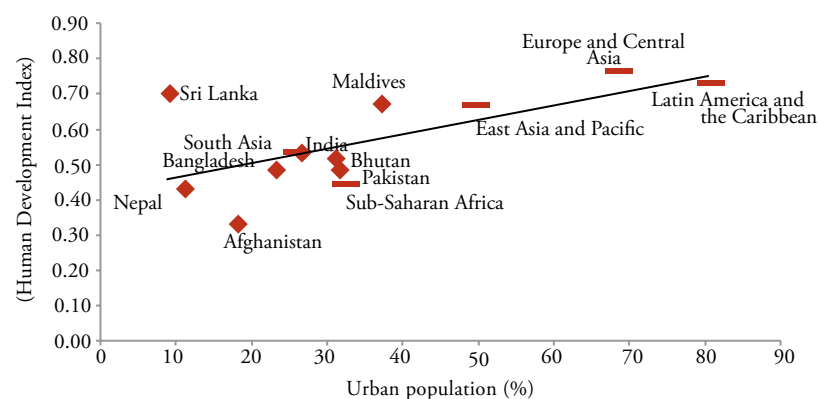
is also facing similar problems with regard to accessing basic services. A rapid increase in Kathmandu's population during the last decade and lack of investment in infrastructure and service delivery has resulted in the deterioration of basic services.⁵² Water supply is the most prominent problem as the available water supply is only half of the daily demand, 100 million litres per day against the demand of 220 million litres. Only 20 per cent of the population receives piped water supply. While 96 per cent of households have access to electricity, there is massive electricity shortage. Ninety-nine per cent of businesses suffer from frequent power outages, at an average of 16 hours per day from winter until spring. Similarly, solid waste management is the most important environmental problem in Nepal. Though the municipal authority collects around 85 per cent of the solid waste that the city generates, a large majority is dumped informally along the river banks of Bagmati and Bishnumati rivers.⁵³

Urbanization and human development

Urbanization holds both opportunities and challenges for human development. For many, urbanization is a key to development. It augments economic activity, provides employment opportunities and enhances access to basic services. However, urbanization can turn cities into places of deprivation, inequality and exclusion. In many parts of the developing world, urbanization has led to the growth of slums, often marginalizing the urban poor and migrants by restricting their access to basic goods, services and livelihood prospects.

In general, increasing levels of urbanization are associated with a higher level of human development. As indicated in figure 2.5, Latin America and the Caribbean and Europe and Central Asia have high human development levels correlated with very high levels of urbanization (exceeding 70 per cent of the population). In contrast, South Asia and Sub-Saharan Africa with relatively low levels of urbanization have achieved medium to low human development.

Figure 2.5 Urbanization and human development



Sources: UNPD 2014 and UNDP 2013.

Within South Asia, as indicated from the case of Afghanistan, Bangladesh, India and the Maldives, the degree of urbanization has increased along with human development performance. However, there are outliers. Sri Lanka, despite having a low degree of urbanization has outperformed other countries in achieving better human development outcomes. Similarly, Pakistan and Bangladesh have the same HDI value with different levels of urbanization.

There are a number of factors related to urbanization that influence human development. These include dimensions such as quality of life, adequate infrastructure, equity and environmental sustainability.⁵⁴ Firstly, economic prosperity is essential for enhanced human development of city dwellers as it generates sufficient income and employment that are required to improve the standards of living for the whole population. Secondly, a thriving city requires physical infrastructure and ameni-

The important features of a well-functioning city interact and influence each other, making the relationship between urbanization and human development multifaceted

ties such as sufficient water and sanitation, energy supply, road networks, transportation services, ICT technology, etc., needed to sustain the population and the economy. Thirdly, a successful city should provide access to social services such as education, health, safety and security, recreation, etc., to improve the quality of life. Fourthly, for improved human development the benefits of prosperity should be equally distributed and the rights of poor, minorities and vulnerable groups need to be protected. A well-functioning city cannot afford to have a large segment of the population living in slums, in a situation of abject poverty and deprivation. Lastly, a prosperous city needs to operate efficiently and productively without damaging the natural environment. If urbanization is accompanied by all these factors, only then will it lead to improved human development outcomes.

The important features of a well-functioning city interact and influence each other, making the relationship between urbanization and human development multifaceted. For example, better infrastructure will also support economic expansion and improve the quality of life. Likewise, providing better education and health facilities will also improve economic prosperity, through enhancement of labour productivity. While the interlinkages and interdependencies between these features can generate a positive multiplier effect, ignoring any particular feature for the sake of the others can derail any progress towards sustainable urbanization. An economically efficient city with sufficient employment opportunities might still not be an ideal city if progress is coming at the cost of the natural environment. Similarly, urban development can be jeopardized due to social and economic fragmentation if economic growth is not equitable. Persistent and stark disparities within cities can result in social upheaval and conflict, since the benefits of development remain elusive for a larger segment of the population.

For urbanization to have any positive effect on human development, economic growth should be supplemented

by improvement in infrastructure facilities and provision of services that enhance the quality of life. Economic growth should also not come at the cost of a degraded environment. More importantly, the benefits of prosperity should be shared equitably and with social inclusion of all segments of the society. The role of the public sector is central to ensuring that the benefits of urbanization are translated into better human development outcomes. In South Asia, against the backdrop of rapid urbanization, effective urban planning and management is a necessity. In its absence, urbanization will remain associated with slums and squatter settlements, poverty, inadequate infrastructure and a deteriorating environment and inevitably, with low human development.

Conclusion and policy implications

Urban areas in South Asia are rapidly moving towards housing more than half of South Asia's total population. An overview of the urbanization process in the region reveals the following key findings:

- South Asia despite being the least urbanized region of the world is urbanizing at a very rapid rate. By virtue of its large population size it contributes to a significant proportion in world urban population.
- The distribution of the urban population in South Asia is very uneven. A large proportion of the urban population in the region is concentrated in a few large cities. South Asian cities are also characterized by very high population densities.
- South Asian cities are the main drivers of sustained economic growth in the region. While previously the agricultural sector played a dominant role, now industrial activities and the services sector, largely based in urban areas are key drivers of economic growth.
- High demographic growth is a significant contributor to the expansion of cities. Both natural increase in popu-

lation and migration from rural to urban areas are contributing to increased urbanization in the region.

- Urbanization in South Asia is marked by a growing number of mega-cities. Five of the world's 21 mega-cities are in South Asia. These mega-cities dominate social and economic trends of South Asian countries.
- Half of the urban population of South Asia lives in small and medium sized cities. However, their share in total urban population has been decreasing over time. Small and medium sized cities lack adequate infrastructure and services.
- The unprecedented pace of urbanization in South Asia poses significant challenges due to the increasing demand for basic services. South Asian cities are facing issues of poverty; inadequate housing and slums proliferation; and increased burden on existing public infrastructure like electricity, transportation and water and sanitation facilities.

Urbanization in itself is not the panacea that would ensure better human development outcomes. The different aspects of urbanization provide both opportunities and challenges with respect to human development. It requires planning to ensure that the process is channeled towards enhancing social and human development outcomes.

All South Asian countries are still in the earlier stages of urbanization. This provides them with an opportunity to plan their progress towards urbanization in a way that they can mitigate the negative aspects of urbanization such as a sprawling slum population, rising inequality and poor provision of basic public services, and promote the opportunities it offers for modernization, economic growth and de-

velopment.

Some of the fundamental questions that policy makers within South Asia need to answer while planning their progress towards urbanization is that urbanization should not only ensure economic growth but also equitable distribution. It should promote prosperity and elevate deep rooted poverty. They need to ensure that the process of urbanization is inclusive and discourage exclusion. And finally that urbanization should be environmentally sustainable and not lead to environmental degradation.

A key policy option based on the foregoing analysis is that South Asia should focus on the growth of small and medium sized cities. So far the process of urbanization in South Asia has relied on mega-cities while ignoring small and medium sized cities. Despite housing half of the total urban population, small cities in comparison to mega-cities are less developed in terms of access to public services and have inadequate infrastructure and services. Small and medium sized cities have the potential to act as centres for economic growth. Lying at the confluence of rural and urban economies, they provide markets for both rural products and urban services. If properly developed they can link rural areas to the global economy.

Focusing on small and medium sized cities will also help to mitigate the negative aspects of urbanization in mega-cities. High population densities, inadequate housing, rising inequality in terms of access to basic services can all be tackled by developing small and medium sized cities and providing adequate infrastructure and services.

This chapter explored the various facets of urbanization which are typical to the region. The next few chapters will explore the opportunities and challenges that urbanization poses for the region.

A key policy option is that South Asia should focus on the growth of small and medium sized cities

Urbanization and Economic Growth

Urbanization is supposed to be the driving force for modernization, economic growth and human development. Cities are seen as engines for wealth creation. Nations have rarely achieved high rates of economic growth, prosperity and social development without urbanization. Countries with a higher level of urbanization have a higher level of per capita income than countries with a lower level of urbanization. Urban-based economic sectors contribute large shares of gross domestic product (GDP). The clustering of cities in the form of mega-regions and urban corridors operating as single entities contributes significantly to increased economic activity. Globally, cities generate more than 80 per cent of global GDP. In South Asia, with just over one-third of total population, urban areas contribute about three-fourths of the region's economic output. The share of cities in national income has been increasing over time. The reason is the presence of growth sectors—manufacturing and services—in cities. These sectors benefit from economies of scale in markets for inputs, outputs and labour.

The labour force in South Asia is projected to increase by 1 to 1.2 million every month during the next two decades. Urban-based industrial and services sectors have to create employment opportunities to absorb them. This requires proper planning and management of urbanization to ensure an inclusive and pro-poor growth process. The contribution of urban areas in GDP and population is the lowest in South Asia compared to other regions of Asia. The level of urbanization in South Asia increased from 16 per cent in 1950 to 31 per cent in 2010. However, in the next two decades the region will urbanize

faster than any other region of the world, with the exception of East Asia. The level of urbanization in South Asia is projected to reach 37 per cent by 2025 and 52 per cent by 2050. The absolute number of people living in urban areas of South Asia is expected to increase from 498 million in 2010 to 724 million in 2025 and 1,189 million in 2050.¹ Given that properly planned and managed urbanization is a source of economic growth and human development, future urban transformations in South Asia should provide a great opportunity for expanding people's capabilities.

Despite a high share in the region's total GDP, urban areas in South Asia are not creating sufficient high productivity jobs in the formal sector. People without jobs in the formal sector are often forced to work in the informal sector, which is characterized by a lack of legal and social protection. In developing countries, about 85 per cent of all new employment opportunities are created in the informal sector.² The trend is similar in South Asia where 8 out of every 10 people are employed in the informal sector (in non-agricultural activities). The generation of employment, with strong linkages between formal and informal sectors, is one of the critical challenges of urbanization in South Asia.

The process of urbanization also has significant implications for rural development. It can provide markets for both farm and non-farm sectors in rural areas. Moreover, migrants to urban areas benefit their families as well as rural areas with their experience and income. However, rapidly expanding urban areas may impact land use patterns and water bodies with significant negative implications for food

In South Asia, with just over one-third of total population, urban areas contribute about three-fourths of the region's economic output

availability. People without resources are among the most vulnerable to food insecurity and disease, especially in cities. Strong rural-urban linkages and properly planned land use is crucial for nationwide food security, inclusive growth and employment creation. Thus there is a need to address the following questions in order to assess the process of urbanization in South Asia:

- How do cities contribute to economic growth?
- What are the main drivers of urban economies in South Asia?
- How can South Asian cities become more competitive?
- How can the urbanization-driven growth process be inclusive enough to ensure benefits for all especially for the poor and the marginalized?
- How does the process of urbanization contribute to rural development?

Economic benefits of urban growth

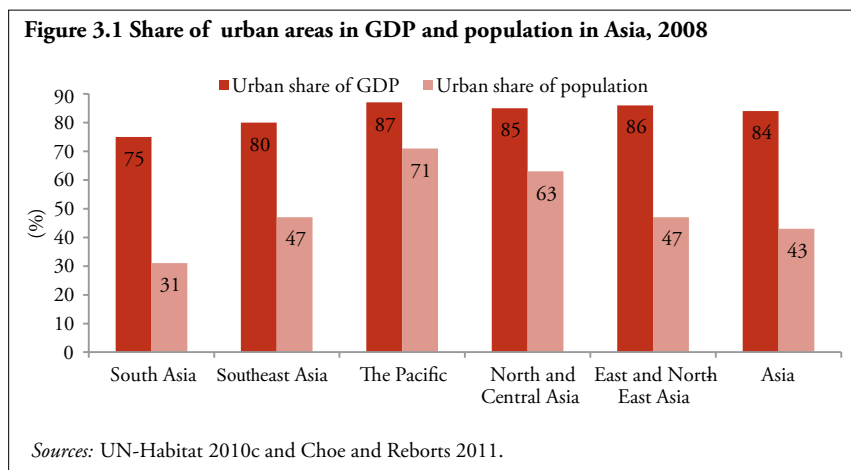
Cities have great potential for economic growth and employment creation. Since sustainable economic growth is associated with the reallocation of labour and capital away from the traditional, low-wage rural sector to the modern, high-wage urban sector, urbanization becomes the locus of economic growth. Properly planned urbanization can contribute to a higher rate

of economic growth because households and firms benefit from economies of scale.³

As a main source of economic growth and employment, cities produce goods and services which strengthen the economic base of the entire nation. Most of the global economic value added and its expansion is created in cities. Globally, cities account for 80 per cent of GDP.⁴ No country can achieve sustained economic growth or rapid social development without properly managed urbanization. There is significant evidence that urbanization enhances productivity and countries with a higher level of urbanization have a higher level of economic growth.

Role of South Asian cities in wealth creation

Over the last decade, most countries in South Asia have observed rapid economic growth. Most of this growth has taken place in the services sector in urban areas. According to *Global Employment Trends 2013*, labour productivity improvement within the services sector has contributed significantly to economic growth in South Asia.⁵ The contribution of urban-based industry and services sectors is increasing over time and becoming a major source of economic growth. A number of cities in South Asia—including Dhaka, Mumbai, Delhi, Bangalore, Karachi, Lahore, Rawalpindi, Faisalabad, Sialkot, Kathmandu and Malé—have become centres of wealth creation. Cities such as Hyderabad, Bangalore and Mumbai have become hubs of information and communications technology (ICT) and finance, while Delhi, Dhaka and Sialkot are among the world's largest ready-made garment (RMG) and sports and leather goods centres. This is largely attributed to improved knowledge, technology, openness, innovation and infrastructure. On the whole, just over 31 per cent of the population living in urban areas contributes to 75 per cent of South Asia's GDP (see figure 3.1).



Economic growth has been robust in South Asia over the last decade. On average, the region grew at 7.2 per cent, however, growth remained lower than average in 2008 and recently (see table 3.1). The recent slowdown is attributed to the sovereign debt crisis in the European Union, sluggishness in the US economy and slowdown in China and other emerging economies.⁶ Domestic factors have also played a role in the decline of growth. These include natural disasters, stagnant investment, electricity shortages and policy uncertainty. In 2011, South Asia was the second fastest growing region (6.5 per cent) in the world, only after East Asia (8.2 per cent) and will continue to be so in the near future, mainly due to the growing economy of India. An improvement is expected in the near future because of improvements in export demand, policy reforms in India, improved investment and normal agricultural production.

However, country-level analysis shows mixed performance with some countries performing better than others. *India* has performed impressively throughout the decade, but its economic growth rate went down significantly in 2012 partly due to the global recession. Investment also slowed down during this time.

An improvement is expected in the coming years due to reforms and policy measures undertaken in 2012 to boost domestic and foreign investment. In *Bangladesh*, economic growth remained around six per cent during the last 10 years partly due to faster growth of small scale industries supported by the Bangladesh Bank's inclusive financial initiative and the government's initiatives to improve infrastructure in the power and communication sectors. In *Sri Lanka*, average growth (6.4 per cent) has been slightly higher than in Bangladesh (6.2 per cent). This is due to an improved macroeconomic environment, increased capacity utilization, enhanced external demand and expansion of economic activity in Northern and Eastern Provinces. The growth rate has been slow in *Pakistan* during the last several years. The main factors responsible for this are: deteriorating law and order situation, energy crisis, floods and political instability. In *Afghanistan*, economic growth has been high due to donor-led development projects. In *Nepal*, average economic growth during the last decade has been the lowest in the region. It was largely attributed to political instability and energy shortage (see table 3.1).

South Asia's economic growth in recent decades is largely contributed by urban areas; the cities account for a larger share of GDP, mostly attributed to the structural transformation. The share of the

Table 3.1 GDP growth in South Asia, 2003-13

	India	Pakistan	Bangladesh	Afghanistan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia
2003	7.9	4.8	5.3	8.4	3.9	5.9	7.7	14.2	7.4
2004	7.8	7.4	6.3	1.1	4.7	5.4	5.9	12.5	7.6
2005	9.3	7.7	6.0	11.2	3.5	6.2	7.1	-8.7	8.8
2006	9.3	6.2	6.6	5.6	3.4	7.7	6.8	19.6	8.7
2007	9.8	5.7	6.4	13.7	3.4	6.8	17.9	10.6	9.1
2008	3.9	1.6	6.2	3.6	6.1	6.0	4.7	12.2	3.9
2009	8.5	3.6	5.7	21.0	4.5	3.5	6.7	-3.6	7.8
2010	10.5	3.5	6.1	8.4	4.8	8.0	11.7	7.1	9.5
2011	6.3	3.0	6.7	7.0	3.9	8.2	8.5	7.0	6.1
2012	3.2	4.2	6.3	4.1	4.6	6.4	9.4	3.4	3.6
2013*	6.4	3.5	6.0	5.1	4.0	6.5	6.4	4.3	5.7

Note: *: Preliminary estimates.

Sources: UN-ESCAP 2013 and World Bank 2013h.

rural-based primary sector has gone down while the share of urban-based non-primary sectors has gone up (see figure 3.2). Economies have become services driven, with the services sector contributing over half of GDP. For example,

- The share of the agricultural sector decreased from 34.5 to 18 per cent between 1980 and 2012. The share of the services sector in GDP increased from 41.3 to 56.3 per cent while the contribution of the industrial sector increased marginally from 24.1 to 25.8 per cent during this time.⁷
- With about one-third of total population, urban areas contribute over three-fourths of the overall GDP (see figure 3.1). In 2004, GDP share of urban economies was over 80 per cent in Bangladesh and Sri Lanka, between 60 to 70 per cent in Nepal, Afghanistan and Pakistan and over 75 per cent in India.⁸
- Between 2007 and 2025, the share of 229 selected cities in India, Pakistan, Bangladesh, Afghanistan and Sri Lanka in the region's total GDP and population is expected to increase from 31 to 40 per cent and 18 to 22 per cent, respectively.⁹

- Mumbai with 2 per cent of the country's population accounts for 6.3 per cent of the country's GDP. The corresponding values are 9.2 and 18.5 per cent for Karachi, 8.7 and 34.5 per cent for Dhaka, 3 and 10.6 per cent for Chittagong, and 10.3 and 82 per cent for Kabul.¹⁰
- By 2030, urban India will create 70 per cent of all new jobs in the country and these urban jobs will be twice as productive as equivalent jobs in the rural sector.

The main drivers of economic activity in South Asian cities

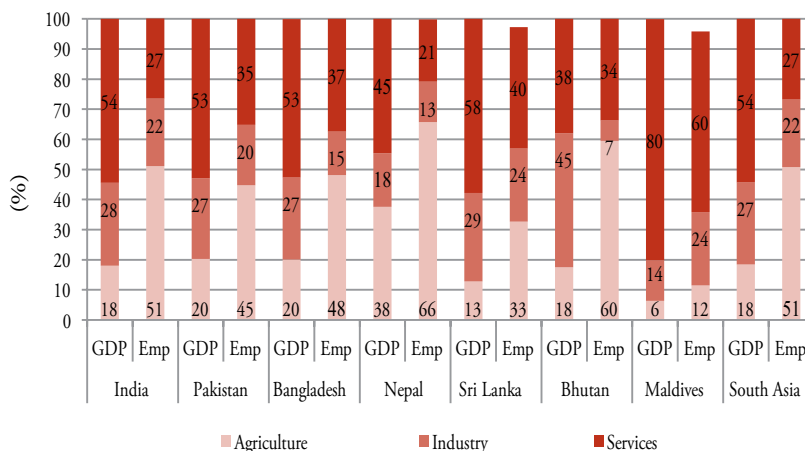
A number of factors act as key drivers of economic growth in cities: a) trade, finance and information and communication systems have been globalized, supporting export performance; b) city clusters are contributing to increased employment and output; c) cities are increasingly becoming knowledge centres; d) mega-cities like Mumbai are attracting larger shares of domestic and foreign investments; e) infrastructure, including water and sanitation, roads, energy and ICT are improving; and f) an improved business environment is increasing competitiveness and productivity.

Globalization

Globalization, through movement of goods, services, people, ideas and information, has resulted in opening of societies, regions and countries. Exports of goods and services have become a significant source of income and employment in cities and countries of South Asia. According to the 2009 Report on *Human Development in South Asia*, since 1990 exports of goods and services have increased significantly in all countries of South Asia.¹¹ Business enterprises are now benefitting considerably from access to a large pool of labour, goods and consumers.

The process of globalization has enhanced the role of cities in global eco-

Figure 3.2 Sectoral shares of GDP and employment in South Asia, 2010



Notes: *: Data is for 2008 for Pakistan, 2005 for Bangladesh, 2001 for Nepal, and 2006 for the Maldives. **: Emp means employment.

Source: MHHDC 2014 *Statistical Profile of Urbanization in South Asia*.

economic development. Cities are now competing in global markets for attracting finance, labour and physical capital. Several cities are now becoming important global cities in hosting a significant part of corporate activities in finance, production and trade. For example,

- In Bangalore and Hyderabad in India, returning migrants from the US have set up information technology (IT) and communication companies to take advantage of globalization. These cities have become export-oriented production centres for software and information services, with vast benefits for national income. In 2010-11, the software and IT services sector in India produced US\$60 billion of output, accounting for a fifth of the country's exports and employing 2.5 million people.¹² This has made India one of the largest exporters of software and IT services. Other cities in the region, such as Colombo, are also making commendable efforts to boost the IT-business process outsourcing industry.
- The success of Dhaka, Bangladesh (see box 3.1) shows that export-led growth in cities can become a significant driver of economic growth and prosperity

if policies are framed to properly utilize human and financial resources.

South Asian governments have been promoting export processing zones (EPZs) to benefit from globalization. Cities or regions designated as EPZs generally have better infrastructure, better functioning labour markets, more employment opportunities and higher wages compared to other cities. In 2002, there were about 3,000 special economic zones in 116 countries of the world. Between 1990 and 2000, 35 special economic zones in Asian cities experienced the fastest urban growth among all cities in developing countries, with 9 such zones in India and 11 in China.¹³ In Bangladesh, two EPZs were established—one in Chittagong in 1983 and one in Dhaka in 1993—to promote export-oriented industries. Later on, more EPZs were set up—two in Dhaka Division, one in Chittagong Division, two in Rajshahi Division and one in Khulna Division.¹⁴ Recently, the Government of Pakistan has planned to set up an EPZ in Faisalabad by offering a number of incentives to investors ranging from tax exemptions to reduction in import duties. EPZs have proved to be drivers of foreign direct investment (FDI), exports and employment creation. For instance, in Sri Lanka the de-

Box 3.1 Export-led growth in Dhaka, Bangladesh

Despite a number of challenges, Bangladesh has benefitted from the process of globalization. The challenges included: high population density, a limited natural resource base, underdeveloped infrastructure, frequent natural disasters and political uncertainty. The success has been built on modernization in the agricultural sector, an industrial sector able to absorb low-skilled surplus farm labour and supportive social policies. The pattern has been similar to that in East Asia where investment in human capital and import of technological and managerial knowledge from developed countries played a significant role in

promoting industrialization.

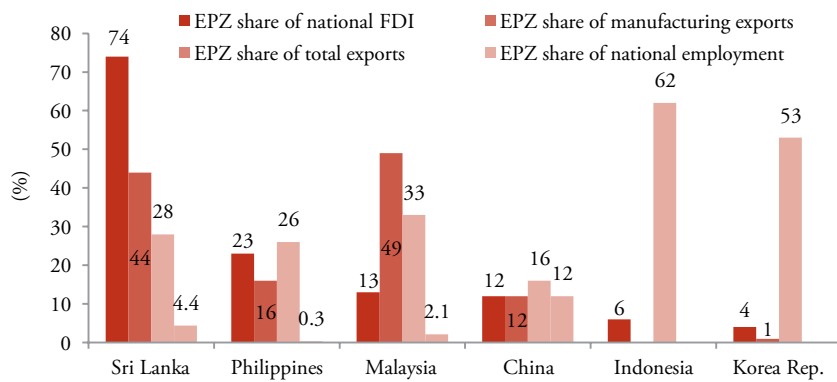
The integration of Bangladesh into the world economy has led to the creation of extensive employment opportunities, especially in the ready-made garment (RMG) sector in large cities such as Dhaka and Chittagong. The contribution of the industrial sector in GDP increased from 20 per cent in 1990 to 30 per cent in 2010. Exports increased three times during this period mainly due to an increase in the flourishing RMG sector. Export earnings from the RMG sector increased from US\$1 million in 1978 to US\$8 billion in 2006, accounting for four-fifths of

manufacturing export earnings. Urbanization also doubled between 1980 and 2010.

The development of the RMG sector has played an important role in economic growth and prosperity in Dhaka; 80 per cent of the garment industry in Bangladesh is in Dhaka. The concentration of the RMG sector in large cities like Dhaka and Chittagong has generated economies of scale, resulting in expansion of associated business and auxiliary activities. These activities have created 2 to 5 million jobs in Bangladesh and 200,000 jobs in Dhaka.

Sources: IGS, BRAC University 2012 and World Bank 2012c.

Figure 3.3 Economic performance of export processing zones (EPZs) in selected countries of Asia



Source: Jayanthakumaran 2003.

Table 3.2 Economic performance of city clusters in South Asia

Cluster	Exports	Production	Employment
Sialkot, Pakistan	US\$125 million in 1995-96	Surgical instruments	300 manufacturers, and 2,500 firms
Wazirabad, Pakistan	...	Cutlery	400 small and medium enterprises and 25,000 workers
Ludhiana, India	US\$121 million in 1996-97	Woolen knitwear: produced 90 per cent of India's woolen and acrylic knitwear	10,000 firms, 200,000 workers
Tiruppur, India	70 per cent of India's cotton knitwear exports	Cotton knitwear: INR2.5 billion turnover in 1985	2,000 firms in 1995
Agra, India	...	Footwear: 300,000 pairs of shoes per day in 1991-92	5,000 firms and 60,000 employees
Palar Valley, India	INR80 billion in 2000-01	Leather tanning	600 firms

Sources: PHASDC 2013 and Chaudhry 2005.

velopment of EPZs helped the takeoff of the garment industry which now accounts for half of the country's sales abroad. These zones offer better infrastructure and a more favourable regulatory environment than the rest of the economy (see figure 3.3).

City clusters

City clusters are significant drivers of economic growth, export promotion and employment creation in cities, regions and countries. They offer shared access to infrastructure, geographical proximity for supply chains and concentration of human capital. The main determinants of city clusters

are topography, climate, transportation, technological facilities and preference of consumers. For instance, in Pakistan the increase in district road density, availability of technically trained people and size of district level population have been found to be the main determinants of industrial clusters.¹⁵

Such clusters have grown and serve as business hubs in several South Asian countries. The clusters are global, highly specialized, and integrated with multinational firms. For instance, Hyderabad and Mumbai in India as global IT and finance centres; Dhaka in Bangladesh and Delhi in India as RMG production centres; and Wazirabad and Sialkot in Pakistan as cutlery and surgical goods centres. These clusters have contributed to national income, employment creation and poverty alleviation. Also, they have provided a favourable business environment for further industrial development by creating economies of scale. For instance, in India there are 14 major clusters of cities which account for a significant share of national income. These 14 industrial agglomerations will account for 17 per cent of the country's total population and 40 per cent of the country's total GDP by 2030.¹⁶ Table 3.2 shows the contribution of city clusters in employment, exports and production in South Asia.

Skilled labour

In the globalized world, only those cities or countries can reap the benefits of prosperity that have people with relevant knowledge and skills, ranging from basic literacy to higher levels of skill. Urban areas that succeed in educating, attracting and retaining creative people are more likely to develop. Such individuals not only generate creative and innovative ideas and products but also attract businesses that create job opportunities for both skilled and unskilled workers (see box 3.2). The role of technical and vocational training is of crucial importance. According to the 2003 Report on *Human Development in South Asia*, the experience of East Asia shows how technical

Box 3.2 Role of information technology (IT) and information technology enabled services (ITES) sector in economic growth and employment creation in Bangalore, India

The city of Bangalore in India has replicated the model of California's Silicon Valley. The success of Bangalore as an IT-ITES hub is the result of two factors: presence of highly educated and skilled people and substantial public and private sector investment in the sector. Such cities have benefitted countries in terms of economic prosperity and employment generation.

Overall growth in IT and ITES in India has resulted in direct and indirect output and employment benefits. India's

software and IT services sector has not only impacted India's economy directly, it also generates substantial benefits through both forward and backward linkages. In 2005-06, India's software and IT services sector accounted for 10.1 per cent of GDP. The sector's direct impact contributed 4.6 per cent to GDP. The impact of the sector's forward and backward linkages contributed another 2.8 and 2.7 per cent to GDP.

Besides creating employment for highly skilled workers, the IT-ITES sector

also generates employment for low-skilled workers, particularly in catering, house-keeping, construction, security and transport. In 2005-06, the sector contributed indirectly to the creation of 3.64 million non-IT jobs. This implies that for every worker employed directly in this sector, jobs were created for an additional two workers in the Indian economy as a whole. The majority of these additional workers had lower skill and education levels than those in the IT sector.

Source: Kite 2012 and MHHDC staff compilations.

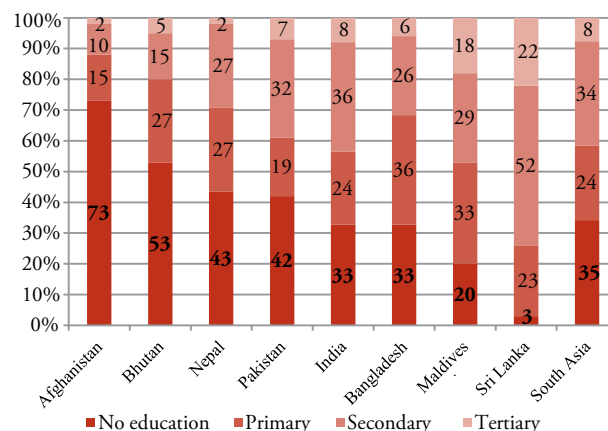
and vocational training can become one of the main solutions to the problems of unemployment and for the prosperity of the region.¹⁷

On the other hand, low levels of educational attainment and skill can constrain urban prosperity. Despite successful examples in a few cities of South Asia such as Bangalore, Mumbai, Karachi and Dhaka, skilled individuals are limited in most cities, especially in slum areas. This deficiency, along with insufficient employment creation and mismatch between skills and jobs, has constrained economic growth in cities and towns of the region. For instance, enterprise managers in the urban formal sectors in India, Bhutan and the Maldives report inadequate skills of the labour force as among the top five constraints to the operation and growth of their firms.¹⁸ Surveys to assess skills report skill deficiency in other countries of South Asia as well. According to the 2008 Report on *Human Development in South Asia*, business enterprises in South Asia are facing the problem of mismatch between skills and jobs.¹⁹ A study has found that in Pakistan and Sri Lanka, up to one-third of employed people are found to be either under- or over-qualified for the work they do.²⁰

Overall, educational indicators in South Asia remain poor. More than one-third of the labour force lacks any education at all with the exception of Sri Lanka

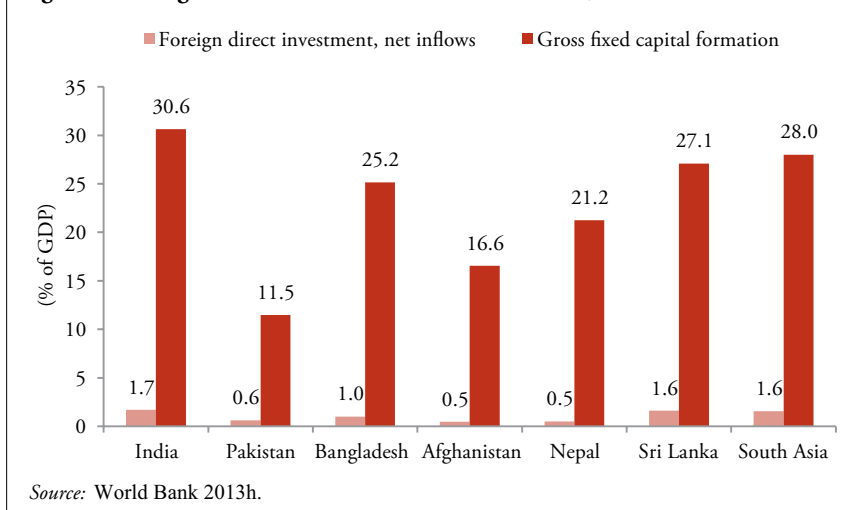
and the Maldives (see figure 3.4). Educational indicators are better in urban areas compared to rural areas, although, there is significant variation within urban areas. For instance in India and Nepal, enrolment rates in the largest cities are higher than 90 per cent, while small cities lag behind by almost 10 per cent.²¹ School enrolment rates are significantly lower in slum areas. In Delhi, the primary school attendance rate was 54.5 per cent in slum areas in 2004-05 compared to 90 per cent for the city. The situation becomes worse at higher levels of education. For example in Bangladesh in 2009, 18 per cent of the children in slum areas attended secondary school compared to 53 per cent in urban areas and 48 per cent in rural areas.²²

Figure 3.4 Educational attainment of the labour force in South Asia, 2010



Source: MHHDC 2014 Statistical Profile of Urbanization in South Asia.

Figure 3.5 Foreign and domestic investment in South Asia, 2011



The contribution of education to prosperity is not automatic. Educational attainment has to be combined with productive and remunerative employment to have sustainable economic growth. According to the 2003 Report on *Human Development in South Asia*, South Asia can learn from the experience of East Asia.²³ By combining their low wages with relevant education and skills, East Asian economies converted their population into an asset and increased their productivity and growth.

Investment

Cities with a favourable business environment and investment culture are more likely to be prosperous and developed. Foreign and domestic investment is mostly attracted to cities with better infrastructure and a business friendly environment. This in turn promotes growth and creates employment opportunities. South Asia has attracted domestic and foreign investors as a result of robust economic growth, investment reforms, expanding consumer markets and macroeconomic reforms. The concentration of investment has been in and around major cities. For instance, in Bangladesh most of foreign capital over the last two decades has been injected in Dhaka and Chittagong.²⁴ However, despite these efforts there are still several constraints to

investment in the region.

In South Asia, India has the highest gross fixed capital formation as a percentage of GDP, while Pakistan has the lowest. The trend is almost similar in the case of FDI (see figure 3.5). The share of South Asia in FDI in the world increased from 0.3 per cent in 1990 to 3.2 per cent in 2009, but decreased to 1.8 per cent in 2012. The main beneficiaries have been India and Bangladesh. In India, the share of FDI in the region's total FDI increased from 43.7 to 87.6 per cent between 1990 and 2012. In Bangladesh, the ratio increased from 0.6 to 7.5 per cent between 1990 and 2005, but decreased to 4.3 per cent in 2012. The share of Pakistan and Sri Lanka in the region's FDI decreased. In Pakistan, it decreased from 45 per cent in 1990 to 17 per cent in 2007, it further decreased to only 3.1 per cent in 2012. In Sri Lanka, it decreased from 8.0 to 3.3 per cent between 1990 and 2012.²⁵ The success of India is attributed to its reform process and huge domestic market. In Pakistan, poor infrastructure along with corruption and poor law and order situation are main constraints for both domestic and foreign investment.

Table 3.3 shows the constraints that urban formal sector firms are facing in South Asia. Overall in South Asia, electricity, access to finance, political uncertainty and access to land are major constraints. Country level analysis shows that lack of electricity is the primary constraint in all countries except Sri Lanka. Access to finance is one of the top five constraints in all countries, corruption is among the top four constraints in Pakistan, India and Bangladesh. Like formal sector firms, informal sector firms in urban areas are also facing a number of constraints. For instance, in India informal sector firms in cities cite access to finance as the top constraint which is the fifth greatest obstacle in the case of formal sector firms. Unlike formal firms, informal firms are less concerned about corruption and taxes and more concerned about access to land and transport.

Table 3.3 Top five constraints reported by South Asian firms in the urban/non-agricultural formal sector							
	South Asia	India	Pakistan	Bangladesh	Afghanistan	Nepal	Sri Lanka
Electricity	1	1	1	1	2	2	4
Access to finance	2	5	4	2	3	3	2
Political instability	3	...	...	3	4	1	...
Access to land	4	...	...	5	5	...	...
Corruption	...	3	2	4	...	...	...
Crime, theft and disorder	5	...	3	...	1	...	...
Practices of the informal sector	...	...	...	...	...	5	1
Tax administration	...	4	...	...	...	...	...
Tax rates	...	2	5	...	...	...	3

Source: World Bank 2013c.

Infrastructure

Improved infrastructure contributes to economic growth of cities by improving labour productivity, enhancing investment climate and increasing competitiveness of firms. However, poor infrastructure hinders the prosperity and development of cities. According to Pakistan's *Task Force Report on Urban Development*, inadequate infrastructure has reduced urban GDP by 10 to 15 per cent with higher impact on small and medium enterprises.²⁶ The *State of the World's Cities 2012/2013* reports that, deficient infrastructure can reduce firm productivity in cities by 40 per cent.²⁷

Pakistan, Bangladesh and Nepal have the worst infrastructure in the world.²⁸ The poor ranking of these countries in the quality of infrastructure shows the lack of commitment on the part of national governments to invest in infrastructure. Although Sri Lanka and India have better infrastructure compared to other countries in South Asia, the situation is not satisfactory compared to the emerging economies of Asia. Low public sector investment in infrastructure is mainly responsible for this. South Asia invested only 3.5 to 4 per cent of GDP annually in infrastructure compared to 8 to 10 per cent in Vietnam during 2000-05 and 14.4 per cent of GDP in China in 2006.²⁹

The biggest infrastructural gaps are in energy, transport and water and sanitation (also see chapter 4):

Table 3.4 Infrastructural constraints faced by firms in the urban/non-agricultural formal sector in South Asia

	Year	% of firms owning or sharing a generator	% of firms identifying electricity as a major constraint	% of firms identifying transportation as a major constraint
India	2006	41.4	32.0	7.8
Pakistan	2007	20.1	74.5	14.2
Bangladesh	2007	52.3	78.4	5.8
Afghanistan	2008	71.1	66.2	29.9
Nepal	2009	15.8	75.6	33.1
Sri Lanka	2011	26.8	25.6	10.2
Bhutan	2009	15.8	5.8	17.0
South Asia	...	39.4	53.2	18.2

Source: MHHDC 2014 *Statistical Profile of Urbanization in South Asia*.

- Although access to water and sanitation is better in urban areas compared to rural areas, no city can supply water for 24 hours a day to its residents. For instance in South Asian cities like Delhi, Mumbai, Karachi and Kathmandu, access to water is between 70 to 100 per cent, however they have water for only 4 to 6 hours a day.³⁰ Moreover, people living in slum areas are facing a severe shortage of water and sanitation services (see chapter 5).
- In the case of energy, business enterprises are facing severe shortages of electricity. Table 3.4 shows that in South Asia, 53 per cent of the firms in the urban formal sector report electricity as a major constraint with over three-fourths of the firms in Pakistan, Bangladesh and Nepal. Similarly, about two-fifths of these firms own

or share a generator. The unreliability of power supply and the frequency of power outages cause firms to lose production. About 11 per cent of urban formal sector firms in South Asia lose their output due to power losses, ranging from 3 per cent in Sri Lanka to 17 per cent in Nepal (see box 3.3).

- Some regional countries have recently taken initiatives to improve transportation. India in 1997 started the Golden Quadrilateral motorway to connect Kolkata, Delhi, Mumbai and Chennai. Similarly, in Pakistan a motorway has been constructed to connect Islamabad, Lahore and Faisalabad. Despite such efforts, there is a need for considerable improvement in road and related infrastructure. For instance, 18 per cent of firms in urban areas of South Asia identify transportation as a major constraint, ranging

from 33 per cent in Nepal to 6 per cent in Bangladesh (see table 3.4). In India, freight costs between metropolitan cores and their peripheries are US\$0.12 per ton-kilometre which is twice the national average and more than five times the cost to move products in the US.³¹

Competitiveness

According to the *Global Urban Competitiveness Report 2011*, among the top 50 globally competitive cities, three—Shanghai, Taipei and Hong Kong—are in China, and none of the top 50 cities are in South Asia. Large cities of South Asia like Mumbai, Kolkata, Karachi, Lahore, Colombo and Dhaka are struggling in competitiveness rankings and performing poorly. Table 3.6 shows that only four South Asian cities are in the top 300 globally competi-

Box 3.3 The crisis of energy in South Asia

In South Asia, 600 million people are without access to electricity, accounting for two-fifths of the world's total. Access to electricity ranges from 77 per cent in Sri Lanka to 44 per cent in Nepal (see table 3.5).

Economic growth, rapid urbanization and rising population have increased the demand for electricity in the region. The gap between demand and supply has increased over time. In India, the gap is about 10 per cent; in Nepal, available capacity falls to nearly one-third of the installed capacity and consumers face 16 hours of load-shedding during the high demand period; in Pakistan, installed capacity is 22 gigawatts (GW) but inefficiencies have reduced actual available capacity to 18 GW in 2010—the country faces load-shedding up to 8 to 10 hours a day. These power losses are resulting in huge economic losses. The energy crisis is estimated to reduce GDP growth by more than 2 per cent in Pakistan and 0.5 per cent in Bangladesh.

Currently, South Asian countries are facing huge financial losses in the electricity sector. The total sector deficit in Bangladesh is US\$300 million per year; in India, losses of state-owned distribution companies are US\$22 billion per year; in Pakistan, the deficit is US\$2 billion a year. The elimination of these financial losses may provide funds for infrastruc-

ture investment. Moreover, regional co-operation in energy has a great potential to address the energy crisis. For instance, Afghanistan, Bhutan and Nepal are sitting on water resources and could generate about 24,000, 30,000 and 83,000 megawatts (MW) of electricity, respectively. So far, only two per cent of this potential has been used.

Table 3.5 Energy indicators in South Asia

	% of population with access to electricity	Installed capacity (MW)	Deficit		Firms' value lost due to power outages (% of annual sales)	Estimated investment (US\$ billions)
			MW	%		
Bangladesh	49	6,727	-1,000	-13	10.6	15 (2015)
Bhutan	56	1,498	1,300	15	4.3	3.1 (2020)
India	66	159,000	-15,700	-13	6.6	280 (2015)
Nepal	44	698	-200	-30	17	...
Pakistan	62	22,000	-4,500	-20	9.2	32.5 (2020)
Sri Lanka	77	2,684	800	30	3	10 (2020)

Sources: World Bank 2012a and 2013c.

Sources: Ahmed and Ghani 2008 and World Bank 2012a and 2013a.

tive cities, while 16 cities including these four are in the top 400 cities. According to the Economist Intelligent Unit, by 2025 Mumbai and Delhi are expected to improve their competitiveness positions significantly while the situation of cities in Pakistan, Bangladesh, Sri Lanka and some in India will deteriorate further.³²

There are a number of factors responsible for the poor competitiveness of South Asian cities. These include inadequate infrastructure planning, financing and development; weak business environment; poor collaboration among business units; and low labour productivity. For instance, according to the *Global Competitiveness Report 2013-14*, Pakistan's public sector institutions are crippled with inefficiencies, corruption, patronage and poor property rights protection.³³ The law and order situation is worsening. Infrastructure, especially, electricity is in a dire situation. Educational enrolment rates in the country are one of the lowest in the world. However, the country is performing better in the financial sector.

Employment growth in South Asia

Considering that the labour force in developing countries, including those in South Asia, is expected to increase from the current level of 1.8 billion to 3.1 billion by 2025, job creation has become a major concern. In South Asia, the labour force will increase by 12 to 14 million per annum during the next two decades. As the agricultural sector in South Asia already contains surplus labour, urban-based industry and services sectors have to create employment opportunities to absorb the increased labour force. Most of this labour force will be from urban areas, either as a result of an increase in the urban labour force or due to an increase in rural migrants looking for livelihoods in urban-based industrial and services sectors. As part of structural transformation most people are looking for employment away from agriculture and towards industry and services. However,

Table 3.6 Top South Asian cities in the competitiveness ranking of 400 cities

City	Country	2011
Mumbai	India	205
Delhi	India	239
Calcutta	India	263
Bangalore	India	276
Karachi	Pakistan	330
Chennai	India	335
Ahmedabad	India	369
Colombo	Sri Lanka	375
Nashik	India	376
Hyderabad	India	378
Bhopal	India	380
Pune	India	383
Lahore	Pakistan	387
Dhaka	Bangladesh	388
Indore	India	392
Islamabad	Pakistan	394

Source: Ni and Kresl 2012.

cities have been unable to produce enough jobs in the industrial and services sectors that could provide decent and gainful employment to rural migrants as well as urban residents. Unlike developed countries, urbanization has taken place in South Asia without a significant increase in formal sector jobs or an increase in agricultural productivity that could sustain rural areas while ensuring food security in cities at affordable prices.

Job creation in South Asia

South Asia is one of the fastest growing regions of the world in terms of economic growth. About 60 per cent of the population is under the age of 30, which would be considered a demographic dividend if economic growth is linked to employment creation. However, the benefits of current development strategies have so far not benefitted the majority of the population. There is an increase in poverty and inequality, especially in urban and peri-urban areas. Inadequate employment generation and persistence of low productivity employment in most sectors of the economy

have resulted in an increase in deprivation.

Economic policies during recent years have been oriented towards increasing growth through liberalization, export-orientation and privatization. It was assumed that as a result of such policies, economic growth will increase and its benefits will automatically trickle down. Such a strategy benefitted the export oriented sectors in various cities and countries of South Asia without generating an adequate number of decent jobs.

In South Asia, high growth has been associated with a rapid increase in labour productivity rather than an expansion in employment. Table 3.7 shows that between 2002-06 and 2007-11, GDP grew at an annual rate of 8.3 and 6.6 per cent while employment increased by only 2.3 and 1.1 per cent compared to about a 3.6 and 3.7 per cent increase in labour productivity, respectively. Overall, GDP growth and labour productivity growth have been higher in 2000s compared to 1990s, while employment growth has been lower. A decrease in employment to population ratio (from 58.0 to 55.8) during the last decade also shows job-less growth. Nonetheless, even where jobs have been created it is mainly in the low productivity informal sector or casual jobs in the formal sector. For example, according to the National Commission for Enterprises in the Unorganized Sector (NCEUS) in India, high growth in the country has not resulted in sufficient employment generation and a rise in average earnings of the work force. The rate of employment growth declined to 1.9 per cent between 1993-94 and 2004-05 compared to a little over 2 per cent during the previous decade.³⁴ Moreover,

employment growth that did take place was almost exclusively within the informal economy. The situation was worse in cities. For instance, the share of metropolitan areas in national employment in India did not increase between 1993 and 2006, not even in industries that benefited from the growing economy, such as ICT and high-tech manufacturing.³⁵

The youth in South Asia is more vulnerable to unemployment as they lack relevant education and skills, work experience and job market information. According to the *Global Employment Trends 2013*, the youth unemployment rate in South Asia was 9.8 per cent in 2012, which was significantly higher than the overall unemployment rate of 3.8 per cent.³⁶ This situation makes the youth in the region more vulnerable to social conflict as is evident from various domestic conflicts in all countries of the region.

Job quality

Besides the mismatch between economic growth and employment creation in cities and countries of South Asia, the deteriorating quality of jobs has also become an increasing cause of concern. This is reflected by a high proportion of vulnerable employment as well as the working poor.

Globally, South Asia has the highest share of vulnerable employment in total employment. Although the share of vulnerable employment in South Asia decreased from 81 per cent in 2000 to 77 per cent in 2012, total number of such employees increased from 415.9 to 490.9 million during this time and will reach 530.6 million by 2017. Within South Asia, the proportion of vulnerable workers is 85 per cent in Bangladesh which is the highest, followed by 81 per cent in India, 71 per cent in Bhutan, 63 per cent in Pakistan, 42 per cent in Sri Lanka and 32 per cent in the Maldives (see figure 3.6).

Besides a high share of vulnerable employment, working poverty also persists at a very high level in South Asia. Based on the US\$2 a day international poverty

Table 3.7 GDP, employment and labour productivity (annual) growth in South Asia, 1992-2011

	1992-96	1997-2001	2002-06	2007-11
GDP (%)	6.2	5.2	8.3	6.6
Employment (%)	2.3	2.2	2.3	1.1
Labour productivity (%)	3.1	1.9	3.6	3.7
Employment to population ratio (average)	58.7	57.7	58.0	55.8

Sources: World Bank 2013c, UN-ESCAP 2013 and MHHDC staff computations.

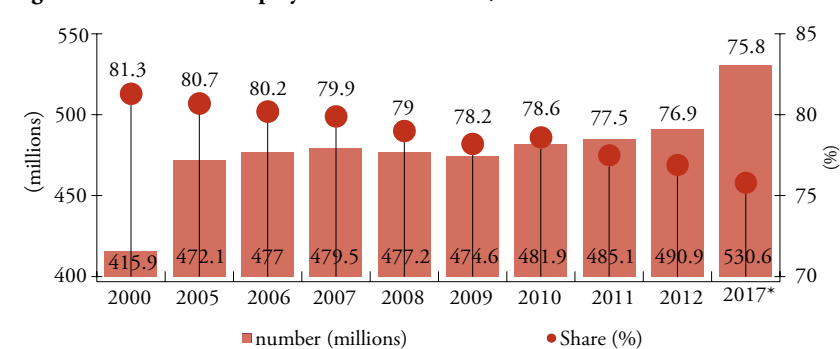
line, in 2012 South Asia had the highest proportion of the working poor at 61 per cent, only after Sub-Saharan Africa (at 64 per cent). In absolute terms, the number of the working poor in South Asia increased from 361 million in 1991 to 391 million in 2012. The share of South Asia's working poor in the world increased from 33 per cent in 2000 to 46 per cent in 2012, partly due to a significant decline in the working poor in East Asia.³⁷ This shows the region's failure to create a sufficient number of productive jobs. It also shows the inability of the working poor to earn enough to get out of poverty mainly due to their stagnating or declining wages.

Changes in employment patterns associated with urbanization

Urban-led economic growth in South Asia has resulted in a decrease in employment share in agriculture and an incremental increase in services and industry. In South Asia, 510 million people survive on less than US\$1.25 a day, and they make up more than 40 per cent of the developing world's poor.³⁸ This high level of poverty results partly from the mismatch between structural change in output and employment. While the share of agriculture in GDP has decreased significantly, it employs a huge number of people. The higher share of services and industry in GDP and the lower share in employment also shows job-less growth (see figure 3.2).

Average productivity and wages in agriculture remain lower than in industrial and services sectors (see table 3.8). In 2008, average productivity per worker in the industrial and services sectors was three to eight times larger than in agriculture. The lower per worker output in agriculture compared to industry and services shows the higher concentration of unskilled workers in the agricultural sector. In the absence of sufficient employment creation capacity of urban-based industry and ser-

Figure 3.6 Vulnerable employment in South Asia, 2000-2017



Note: *: Projected data.
Source: ILO 2013.

Table 3.8 Ratio of average productivity and wages in South Asia, 2008

	Ratio of productivity		Ratio of wages*	
	Industry to agriculture	Services to agriculture	Industry to agriculture	Services to agriculture
India	4.7	6.8	1.5	2.3
Pakistan	2.9	3.3	1.4	1.8
Bangladesh	3.9	3.2	...	...
Nepal	3.4	7.7	1.5	2.1
Sri Lanka	2.7	3.4	1.4	2.0

Note: * Data for India is for 2010 and for Pakistan is for 2009.
Source: World Bank 2012a.

vices sectors, the agricultural sector has become a residual sector to absorb the surplus labour force. A similar situation is found in the industry and services sectors in urban areas which are a source of a high number of informal workers. In South Asia's services sector, about two-fifths of the labour force is engaged in informal activities, earning subsistence wages.³⁹ The industrial sector is also facing a similar situation. Globalization-led automation of industry has reduced the demand for labour. The industrial sector is employing low paying workers to decrease the cost of production in a globally competitive world. In India, for instance, 80 per cent of the manufacturing workforce is informal.⁴⁰ Similarly, low-paid female workers can be seen in the garment sector in Bangladesh. They are mostly rural migrants who are landless and unemployed and live in slum areas.

The region is facing a dual challenge. The first challenge is to raise productivity of all workers to ensure rising income and reduced poverty. This requires shifting labour from agriculture to urban-based industry and services sectors with higher productivity. Also, there is a need for intra-sectoral re-allocation of labour from less productive to more productive units within industry and services sectors. The second challenge is to create enough jobs for a growing working age population which is increasing at an annual rate of about two per cent. South Asia will add 1 to 1.2 million new entrants in the labour force every month for the next two decades (between 2010 and 2030) compared to 0.8 million per month during the last two decades (between 1990 and 2010). This will amount to about 40 per cent of the total new entrants to the global working age population.⁴¹

In this regard, urban-based industrial and services sectors are of crucial importance not only for creating jobs in urban areas, but also for increasing their linkages and impact on rural areas (see next section of the chapter). A higher absorption of labour from a traditional agricultural sector to industrial and services sectors will not only increase the productivity and earnings of workers, but also increase the productivity of the remaining workers in the agricultural sector. Urban-led economic growth needs to play a crucial role in South Asia to increase high productivity jobs in urban areas through labour-intensive techniques. This will also have a positive impact on rural areas through rural-urban linkages. For instance, by 2030 urban India is projected

to create 70 per cent of all new jobs in the country and these jobs will be twice as productive as equivalent jobs in the rural sector. Moreover, more than 200 million people living close to cities will benefit due to improved access to jobs, markets and connecting infrastructure. This will result in a four-fold increase in national GDP per capita. Besides, the urban economy will contribute 85 per cent to total tax revenue.⁴² This shows the great potential of cities as sources of prosperity and employment in South Asia.

However, urbanization cannot automatically result in employment-led growth. It has both advantages and disadvantages for the labour market (see box 3.4). Inappropriately managed urban-led economic growth creates jobs mostly for the skilled labour force. Also a majority of the labour force may be employed in the unprotected informal sector and thus may be deprived of the benefits of economic growth.

The urban informal economy

In most developing countries including those in South Asia, urban economies have become increasingly informal over the last decade. The formal sector has failed to absorb the growing labour force, even in the presence of economic growth. The informal economy accounts for about half the workers in the world. In India, Pakistan, Bangladesh, Nepal and Afghanistan about 80 per cent of the workers are employed in informal non-agricultural activities and are not affiliated with any formal social security programme (see figure 3.7). Over the past decade, informal work is estimated

Box 3.4 Advantages and disadvantages of urbanization for the labour market

- | | | |
|--|---|--|
| <ul style="list-style-type: none">• Economic growth may create productive jobs, but these jobs may only benefit the skilled labour force.• It may be easier to provide basic public services at lower per capita cost due to higher population density; | <ul style="list-style-type: none">• however, people living in slum areas or attached with the illegal economy may be bypassed.• It may create more opportunities for the female labour force; however, easy entry in the labour market may | <ul style="list-style-type: none">• also encourage child labour.• Cities may become the source of innovation, creativity and business ideas; however, higher population density may also encourage drugs, prostitution, violence, and so forth. |
|--|---|--|

to have created a major portion of jobs in South Asia. Without the informal sector, poverty and deprivation in urban areas will be severe.

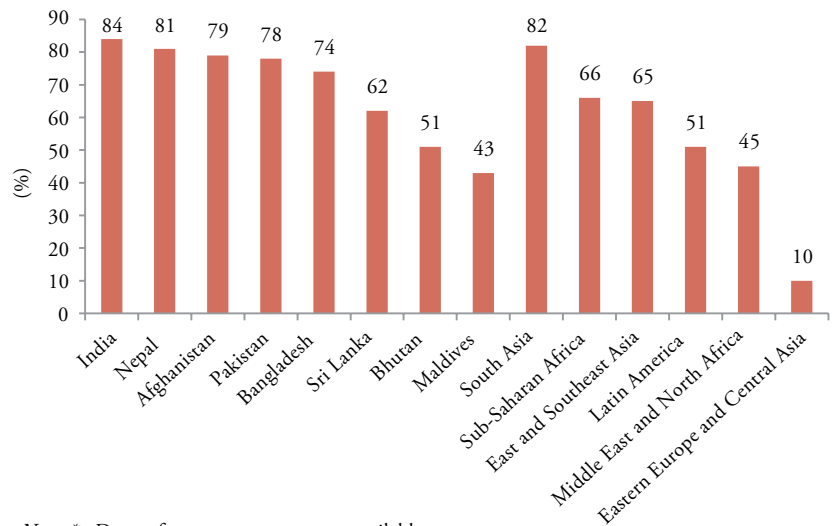
Magnitude of the informal sector

In urban areas, the informal sector absorbs a lot of workers due to a rising urban population and rural-urban migration. According to the International Labour Organization (ILO), about 85 per cent of all new employment opportunities in developing countries are created in the informal sector.⁴³ Figure 3.7 shows that informal employment⁴⁴ comprises more than half of non-agricultural employment in most developing regions. South Asia has the highest share of informal sector workers in the world. Eight out of every ten workers are employed in the informal sector in non-agricultural activities in South Asia—it ranges between 74 per cent in Bangladesh to 84 per cent in India. In Dhaka, about 65 per cent of jobs are in the informal sector with the largest concentration in the rickshaw sector.⁴⁵ A similar trend is evident in other large cities of the region including Karachi, Mumbai, Lahore, Kolkata and Kathmandu.

Informal employment includes employment in both informal and formal enterprises. Informal employment inside the informal sector comprises all types of employment from employers, employees, own-account workers, contributing family workers and members of cooperatives. Informal employment in the formal sector includes employees not covered by social protection, employees in households without social protection and contributing family workers in formal enterprises. In South Asia, 69 per cent of informal employment in non-agricultural activities is in the informal sector and 15 per cent in the formal sector. The corresponding values are 67.5 and 16.8 per cent for India (2009-10), 73 and 8.3 per cent for Pakistan (2009-10) and 50.5 and 11.6 per cent for Sri Lanka (2009).⁴⁶

Informal employment in urban areas includes a range of occupations such

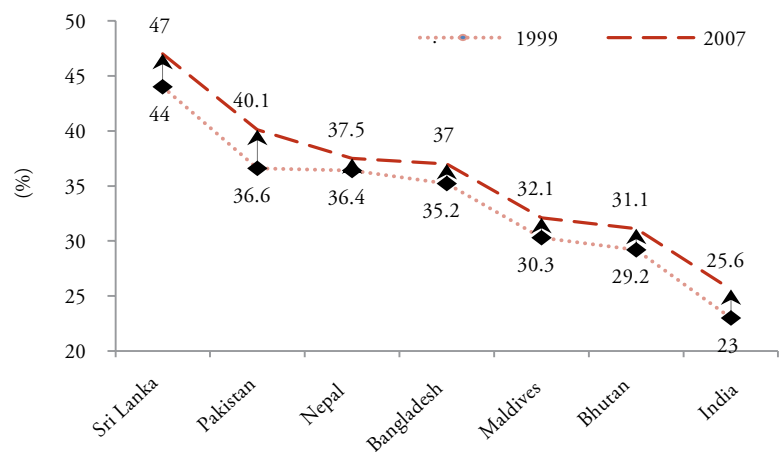
Figure 3.7 Share of informal employment in non-agricultural/urban employment, 2004-10*



Note: *: Data refer to most recent year available.

Sources: WEIGO (forthcoming) and World Bank 2012a.

Figure 3.8 Share of unorganized sector in GDP in South Asia, 1999-2007



Source: MHHDC 2014 *Statistical Profile of Urbanization in South Asia*

as domestic workers, home-based workers, street vendors and waste pickers. In India, for example, domestic workers (4 per cent), home-based workers (18 per cent) and street vendors (11 per cent) comprise one-third of urban employment.⁴⁷

In terms of its contribution to GDP, the informal sector accounts for between 26 and 47 per cent of annual output in South Asia. This ratio has gone up in all South Asian countries during the last decade (see figure 3.8). The driving forces for the unorganized economy are an increased burden of taxation (both direct and indirect), labour market regulations, the qual-

Women, migrants and other vulnerable groups who are unable to find decent employment opportunities have no option but to take informal sector low-quality jobs

ity of public goods and services as well as the state of the official economy. In cities where the largest economic activity is generated by the informal economy, local governments are unable to collect sufficient tax revenues. Moreover, the dependence of the informal economy on an informal money market weakens the central bank's efforts to control inflation.

Dynamics of South Asia's growing informal sector

Although the informal sector in South Asia is a source of employment and income for the majority of people employed in urban-based activities, it is also responsible for the worst forms of exploitation. Working in the informal sector means working under poor employment conditions with higher risk of poverty. The main features of informal jobs are the casual nature of jobs with little or no legal or social protection and long working hours. Women, migrants and other vulnerable groups who are unable to find decent employment opportunities have no option but to take informal sector low-quality jobs. Besides these, there are other determinants of the informal economy; these include a burdensome legal and regulatory framework, poor quality and quantity of education and a larger share of migrants from rural areas and young people.

Despite long working hours, informal sector workers remain poor due to low productivity. This is attributed to limited access to capital, land, technology and bargaining power. Even within the informal sector, employers earn the highest income followed by their employees and other regular informal wage workers, then own account workers, followed by casual wage workers and domestic workers, with industrial outworkers earning the least. For example, in Sri Lanka the mean hourly wage of informal workers is 39 per cent lower than that of formal workers. In India per worker value added in the informal manufacturing sector averages about one-eighth of the formal sector.⁴⁸ Poverty is associated with the informal sector with the

majority of workers belonging to the poor class. In 2004-05, 79 per cent of workers in the informal sector in India were from the poor and vulnerable class.⁴⁹

In South Asia, the existence of high informal sector employment and output is attributed to the parallel existence of three modes of production: traditional agricultural, industrial and global modes of production.⁵⁰ First, all South Asian countries are still dominantly agricultural. Much of the production in this sector is produced by using traditional technologies. Second, the industrial sector has been stagnant over the last few years. Large scale industry has not spread widely and is capital-intensive. Most of the production and employment activities take place in the micro, small and medium scale industries which are labour-intensive. However, they hire labour on a casual basis and with limited job security and benefits. Third, globalization has been associated with two forms of production: concentrated production in large scale industry or in EPZs and dispersed production across a long chain of suppliers, contractors and industrial workers in global supply chains.

Women and employment

The 2000 and 2002 Reports on *Human Development in South Asia* argued that no matter how poor, deprived and poorly employed the men are in South Asia, the burden of deprivation, inhuman working conditions and exploitation is far worse for women.⁵¹ They face various forms of deprivation and discrimination through unequal provision of nutrition, healthcare, education and employment. Regarding economic participation of women in South Asia, three large countries, India, Pakistan and Bangladesh are all in the bottom 15 countries (see table 3.9). This is attributed to a lower ratio of female to male labour force participation and lower earned income.

Globally, the female labour force participation rate as a percentage of male is one of the lowest in South Asia (40 per

cent in 2011), compared to 81 per cent for East Asia and the Pacific.⁵² Household responsibilities, cultural attitudes, social norms about women in the work place and low education and skills are the main factors responsible for low female labour force participation in South Asia. However, the situation varies within the region. The female labour force participation rate as a percentage of male is the lowest in Afghanistan (20) and Pakistan (27) and the highest in Nepal (92). The gap has improved considerably in Bangladesh due to an exponential growth of the garment industry. The situation has deteriorated in India. Decline in the female labour force participation rate in India is partly attributed to increased enrolment of working age women in secondary schools.⁵³

In absolute terms, the female labour force participation rate has increased in the region over the last few decades. The supply of women looking for jobs has increased in accordance with an increase in demand for female labour in urban-based services and industrial sectors. This pool of working women includes urban dwellers, rural migrants, immigrants and foreign contract workers. An increase in the supply of working women can be explained by demographic and economic factors. The demographic factors include declining fertility rates along with improved education and technological support to ease women's domestic work load. The economic factors are high inflation, declining employment and real wages of men and desire for higher standards of living. An increase in demand for female workers is attributed to urbanization and globalization of markets and production systems that have created employment opportunities for women. The evidence can be seen from the growing garment sector in Bangladesh to call centres in India. In Bangladesh, 1.5 million of the 1.8 million jobs created in export-oriented garment industries in 2000 went to women.⁵⁴ In the urban areas of India, the abundance of call centre jobs for women is another source of women's economic empowerment.

Table 3.9 Economic participation of and opportunity for women in South Asia, 2013*

	Economic participation and opportunity (rank out of 136 countries)	Female workers in informal employment (% of non-agricultural employment)	Female to male ratio		
			Labour force participation rate	Wage equality for similar work	Estimated earned income (PPP** US\$)
India	124	85	0.36	0.62	0.27
Pakistan	135	76	0.27	0.55	0.21
Bangladesh	121	...	0.69	0.53	0.52
Nepal	116	...	0.94	0.59	0.41
Sri Lanka	109	56	0.47	0.74	0.36
Bhutan	27	...	0.88	0.67	0.64
Maldives	99	...	0.73	...	0.56
South Asia	...	83	0.40	...	...

Notes: *: Data refer to most recent year available. **: PPP means purchasing power parity.

Sources: ILO 2012b, WEF 2013b and WIEGO (forthcoming).

In South Asia, 83 per cent of women's non-agricultural employment is informal—this is the highest in the world. They are either self-employed or wage earners, or free contributors to family labour and earn less than their male counterparts. Female informal workers in non-agricultural activities vary from 85 per cent in India and 76 per cent in Pakistan to 56 per cent in Sri Lanka. The trend is similar in cities. In the capital and large cities of Nepal, 65 per cent of employed women work in the informal sector.⁵⁵

- In Pakistan, Bangladesh and Sri Lanka informal sector female average earnings are 50, 66 and 69 per cent of what men earn respectively.⁵⁶
- In 2002, out of 100 million home-based workers worldwide, 50 million were in South Asia and 80 per cent of them were women. In India, Pakistan and Bangladesh 51, 65 and 71 per cent of the non-agricultural female workforce comprised home-based workers.⁵⁷

Increasingly, the non-governmental sector in South Asia is providing social protection to informally employed women workers. The objective is to increase productivity and wages as well as legal and social protection and empowerment of workers. The Self-employed Women's As-

Box 3.5 The Self-employed Women's Association (SEWA), India

SEWA focuses on organizing women in informal employment and is experimenting with schemes to provide health and life insurance to workers in the unorganized economic sector. It provides one of the most extensive and best known models of empowerment and development.

SEWA is a national labour union that organizes women workers in the informal economy of India. By 2012, SEWA's countrywide membership had swelled to 1.4 million. It is the largest union in India and the largest union of informal workers in the world. Its members include self-employed hawkers, vendors, home-based

workers and labourers.

In addition to being a trade union that organizes for higher wages or enterprise benefits, SEWA integrates a development approach to address the needs of its members, who tend to be traditional, deeply rooted poor women. The strategy is carried out through joint action of the union and cooperatives and other collective economic organizations. All of the organizations are owned by the women who are members of SEWA. They put up the shared capital and manage and control the organizations through democratically elected boards of worker representatives.

Struggle takes place through: efforts for rights; improved working conditions; and development by providing economic opportunities through cooperatives, producer groups, savings and credits groups among others.

SEWA also has specialized units, some run as cooperatives such as the Co-operative Bank and the SEWA Social Security. The SEWA Academy provides training and research services and also runs a video cooperative. The Gujarat Mahila Housing SEWA Trust provides housing and infrastructure services.

Source: Sinha 2013 and MHHDC staff compilations.

sociation (SEWA) in India is a good example of such an effort to deliver innovative services to address the needs of informal sector women workers (see box 3.5). The General Federation of Nepalese Trade Unions in Nepal is another such organization that has organized informal workers to raise their voice and visibility. Homenet South Asia, with networks of home-based workers and support organizations in Bangladesh, India, Nepal, Pakistan and Sri Lanka is also working to help home-based workers.

Implications of urbanization for the rural economy and food security

Urbanization affects rural areas by providing access to jobs, markets and social and physical infrastructure. Cities provide markets for agricultural products, specialized services (health, higher education, wholesale, government and finance) and sources of temporary employment and shelter for some rural household members.

Economic growth is a link between rural and urban areas where what happens in one area affects the other. Rural growth contributes to urban growth and vice versa, however rural growth cannot occur without good access to urban markets and vibrant farm and non-farm activities.

For instance in Bhopal, out of two villages 15 kilometres apart, one is well connected to the road network while the other has a dirt track. In the first town, land prices are three times higher, wages 50 per cent higher and far more people commute and engage in market activities.⁵⁸

Increased diversification of livelihoods for rural to urban migrants

Workers respond to employment opportunities either by migrating on a permanent basis or commuting. This mobility also links urban areas with rural farm and non-farm sectors. Rising income in rural areas allows rural households to invest in their own businesses and in their children's health and education, preparing them for their future. People also move to other countries for better economic opportunities.

People migrate from rural to urban areas due to disasters, land scarcity, lack of earning opportunities and lower wages. In cities like Dhaka, Mumbai, Bangalore and Karachi, people are increasingly migrating from rural to urban areas to benefit from income and employment opportunities. This mobility enhances the welfare of migrants. For instance, in Pakistan, in 2001 average income of working men and wom-

en improved by 1.8 and 2.4 times after migration to cities. The ratio of female to male earnings also increased from 62 to 85 per cent.⁵⁹ In Dhaka, migrants send up to three-fifths of their earnings to their relatives at home. Similarly, in India, remittances account for about one-third of the incomes of poor and landless households.⁶⁰

Of these movements, circular migration is one of the dominant trends where trips vary from daily commutes upto several months. For instance, in northern Bihar, temporary migration from rural to urban centres and non-farm occupations increased from 3 per cent in 1983 to 24 per cent in 2000.⁶¹ For this sort of movement, transport infrastructure is of vital importance. Better road and transport infrastructure reduces the time and costs of accessing schools, health facilities and markets. For instance, in Nepal, where limited agricultural potential in the mountains makes migration an important livelihood strategy, migrants also value proximity to paved roads because it is easier for them to travel back and forth between their families in rural areas and their jobs in urban areas.⁶² Such earnings have very strong links with rural development and livelihoods. They play an important role in supplementing incomes and improving livelihoods in receiving households. In Bangladesh, a study for migrant farmers in a famine-prone rural area shows that those who migrated increased the consumption of their family members by 30 per cent and increased the calorie intake by 550 to 700 calories per person a day.⁶³ In Andhra Pradesh and Madhya Pradesh in India, poverty rates in households with a migrant fell by about half between 2001-02 and 2006-07.⁶⁴

A similar trend has been found in different urban centres in Pakistan, where urban areas have benefited rural residents not only by providing them employment opportunities, but also by providing markets for the sale of their food products. For instance, in Lahore and its surrounding districts in Pakistan, access to urban centres through road infrastructure has helped

the rural population to improve their living standards through job opportunities in cities and through the sale of their food and agricultural products in urban markets. A second urban corridor has been developed near the twin cities of Islamabad and Rawalpindi, which have integrated their rural populations as well as populations from the nearby cities of Jhelum, Chakwal and Attock by providing them employment opportunities in the services sector. A third urban corridor links Sialkot, Gujrat and Gujranwala, where light manufacturing industries have provided employment opportunities for rural people.⁶⁵

Spreading markets and modernization

Cities provide markets and services to rural areas, while urban areas also depend on rural economic growth for low-priced food and markets for urban goods. Economic growth based on strong linkages between rural and urban areas benefits both urban and rural residents. A study in India has shown a growing link between urban development and a reduction of rural poverty with urban development linked to higher demand for rural products and more options for rural non-farm diversification.⁶⁶

Cities help rural areas in improving productivity through technology transfers, educational services and training. A boom in the modern agricultural sector boosts demand for marketing, transportation, construction and banking which urban areas provide. Farm mechanization increases demand for urban-manufactured machinery, equipments, fertilizers and pesticides. In Asia, every US\$1 of additional output in the farm sector generates an extra US\$1.8 of output in the non-farm sector.⁶⁷ The economies of scale in urban areas also benefit the location and efficiency of the rural non-farm sector. A study on Bangladesh has found that people are more likely to be employed in better-paid wage employment and self-employment in the non-farm sector if they are closer to urban centres.⁶⁸

Economic growth based on strong linkages between rural and urban areas benefits both urban and rural residents

The accelerating pace of urbanization may pose significant pressure on agricultural land

Cities in turn also benefit when agricultural sector productivity increases. Urban development reduces rural poverty by creating opportunities for both farm and non-farm sectors in rural areas. Cities provide markets for farm sector output such as vegetables, fruits, meat and dairy products. A strong domestic farm sector affects urban staple food prices and increases the supply of locally produced goods. The rural non-farm sector also benefits cities by supplying parts and components. A strong connectivity of cities with the rural farm sector stimulates growth in the rural non-farm sector. Rural non-farm economic activity fails to emerge if access to markets in large urban centres is not available. In Bangladesh, lack of connectivity is doubly damaging for areas with higher agricultural potential.⁶⁹ It not only depresses growth in agricultural productivity but also discourages growth of better-paying non-farm activities.

The rural non-farm sector is increasingly becoming an important source of economic activity and employment. In developing countries, the rural non-farm sector accounts for about one-fourth of full time employment and 30 to 40 per cent of rural household income.⁷⁰ The contributions of rural non-farm activities to rural household income are significant in South Asia, ranging from about a third in Nepal and Pakistan to about two-fifths in India to more than half in Sri Lanka and Bangladesh.⁷¹ To confront rural unemployment, a complementary policy objective is promoting a dynamic rural non-farm sector, linked to both agriculture and the urban economy. China has brought industry to rural towns, diversifying rural incomes (see box 3.6).

Impact of urbanization on agricultural land and food security

The accelerating pace of urbanization may pose significant pressure on agricultural land which is already in short supply to meet the needs of the growing population in South Asia. The physical expansion of

urban areas leads to the extension of urban areas into rural space to accommodate the growing number of urban residents and increasing levels of economic activity. Demand for land in surroundings of cities has increased in South Asia to build residential areas, industrial clusters, transport corridors and for waste disposal. Such trends are not only reducing farm land but also affecting crop production. For instance, if the use of cultivable land and water-bodies for urban development grows at the current rate in Bangladesh, there will be no land available for agriculture by 2070.⁷² Similarly in Lahore, between 1972 and 2010 about 3,016 hectares of vast agricultural areas on the fringes of the city were converted for urban use annually. If present land use policy and norms are not modified, the remaining total cultivated area of 52,332 hectares will be exhausted by 2030.⁷³

Such trends have negative consequences for food production. An immediate consequence is the crowding out of peri-urban agriculture which plays a significant role in supplying food to urban areas. For example, in Lahore the production of crops decreased significantly between 1986-87 and 2007-08 due to reduced arable land.⁷⁴

Conclusion

One of the largest and most dramatic social transformations taking place in the world is the rapid urbanization of developing countries. This change has both positive and negative impacts on national economies. Countries with a higher level of urbanization have a higher level of per capita GDP. With about one-third of the total urban population, cities in South Asia contribute about three-fourths of total GDP in South Asia. Compared to other regions of the world, this contribution of urban areas to GDP is lower. Well managed urbanization has great potential for not only enhancing national economic growth but also making the growth process more equitable.

South Asia needs to take urbaniza-

Box 3.6 Balancing urban and rural development: The experience of Chengdu, China

Chengdu remains one of the most industrialized and urbanized cities in China's west and one of the most liveable cities in the country. It has a population of 14 million. Between 2003 and 2008, the ratio of the population living in urban areas in Chengdu grew from 56.8 to 63.5 per cent. During the course of rapid urbanization and urban development, Chengdu has become one of China's largest cities comprised of the metropolitan area and many smaller urban centres with sufficiently large scale, good infrastructure and good public services to house industries. Chengdu's relatively good urban environment, infrastructure and facilities as well as less expensive labour and natural resources have not only made it one of the most liveable and favourable cities in the nation, but also attracted major domestic and international firms to set up factories and establish businesses in the area. By 2010, 179 of the global largest 500 firms established businesses in Chengdu.

As an important city in South-west China, Chengdu's rural-urban integration development began in 2003. In 2007, Chengdu and Chongqing became the first national comprehensive reform and experimental districts of rural-urban development, with special policies put in

place to encourage comprehensive reforms and reduce urban-rural disparity; all leading to integrated urban and rural prosperity and harmony. As a model city, Chengdu has implemented a series of measures to coordinate development between the urban and rural sectors. The city has by now eliminated administrative barriers to rural migrants to enter and settle in the city; labour and population mobility between the two sectors has become free; and fiscal expenditures designated for community development are at least equally allocated to the two sectors. The peripheries of the central city and the remote countryside have been made attractive to local residents and harder to leave, resulting in higher growth of the non-farm population away from the main city. As a result, rural-urban disparities in Chengdu have been alleviated more successfully than at the national level. Chengdu's urban to rural per capita income ratio decreased from 2.64 to 2.54 and is lower than the national average ratio of 3.23.

The city has used governmental, administrative, economic, political and planning system reforms to clarify land use rights, rationalize industrial zones, modernize agriculture, implement regional planning and equalize infrastructure and

services. The government has shifted 30 per cent of its resources to its rural areas and encouraged development zones that allow rural residents to earn higher salaries and to reap the educational, cultural and medical benefits of urban life. It is the only city in China to enjoy high economic growth while also reducing the income gap between urban and rural residents over the past decade. South Asia can learn and benefit from this successful example.

Following the example of Chengdu that has completed its planning to integrate urban and rural areas in its entire region, a number of cities including Nanjing, Shijiazhuang, Changsha and Lanzhou have explored plans to integrate urban and rural spatial development, development and distribution of industries, public services and infrastructure and ecological and environmental protection. Planning at county and city levels pays more attention to village construction and renovation, with the focus on making plans and meeting development requirements in village distribution, rural environmental improvement, rural land arrangement and the construction of exemplary agricultural projects.

Sources: Qingjuan *et al.* 2011 and Chen and Gao 2011.

tion as an opportunity to address issues of poverty, inequality, deprivation and under-development. An approach based on the philosophy of human development will help to promote economic growth as well as reduce income inequality and achieve balanced urban and rural development. For this, cities need to develop their own plan of action, with clear objectives and strategies. Some of the policy options could be the following:

Strategies for industrial and infrastructural development must include employment generation as a prime objective. This would require increased private and public investment in labour-intensive production sectors. The most critical step would be

to assist small and medium enterprises (SMEs), by providing them credit facilities and market opportunities. Along with these measures, there ought to be special focus on social sector spending. Moreover, there is also a need for stronger and enforceable regulations to ensure workplace safety, consumer protection and environmental preservation.⁷⁵

Secondly, the above-mentioned strategy must recognize the existence of the urban informal economy that accounts for a major share of employment and GDP. There is a need to increase the productivity of the urban informal sector, because urban, rural and national level productivity cannot be increased without this. Efforts should be

The region needs to increase public investment in infrastructure for energy, transport, housing, water and sanitation and ICT sectors

made to build well-designed and well-targeted programmes that can help informal sector workers to improve their income and working conditions.

The education and training system must be improved and upgraded. There is a need to improve the capability of people by improving access to quality education and training. In this context, university-industry linkages are of paramount importance to address the issue of mismatch of skills to jobs. In-service training should also be provided to employees as well as employers in order to meet the production standards of globalization. Cities also need to improve their business environment to attract domestic and foreign investment which is essential for economic growth and employment creation.

Policies for manufacturing and services sectors. National governments should carefully analyse shifts in global production patterns. This will reduce the costs of industrial restructuring and its impact on workers. There is also a need to provide guidance to local investors about export and import opportunities. Effective measures should be taken to improve the business environment.

Infrastructure development must go hand in hand with employment generation. The region needs to increase public investment in infrastructure for energy, transport, housing, water and sanitation and ICT sectors. This will not only facilitate inter and intra-city networks, but also strengthen rural-urban linkages.

Urban Challenges and Socioeconomic Disparities

Cities are engines of economic growth for countries in South Asia. Many cities such as Dhaka, Bangalore, Hyderabad, Mumbai, Karachi, Faisalabad, Colombo, Kathmandu and Malé have become centres of new wealth generation. The population density and economies of scale characteristic of such urban areas attract entrepreneurs, facilitate business and investment and provide markets. 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 are expected to be the principal source of future economic development for the South Asian region.

While South Asian cities have become centres of affluence on one hand, they house large concentrations of poverty on the other. Cities attract rural migrants because they provide some of the best social services available in the country, yet these cities are home to some of the worst socioeconomic disparities in the form of urban poverty, unsanitary living conditions, pollution and slums.

Part of the reason for such divisions and socioeconomic differences within a city has to do with the pace of urbanization. The rapid growth of cities in South Asia has already outpaced the development of urban infrastructure and service systems, undermining the potential for efficiency and growth to the detriment of urban inhabitants—both poor and non-poor.

Infrastructural challenges in urban centres have a strong bearing on urban poverty and deprivation. Underinvestment in basic infrastructure—transport, water and sanitation, energy, solid waste management systems and the provision of health

and education—is a major determinant of the spread of slums. Many of the public services provided by the government typically alienate the urban poor.

Left unaddressed, urban slums in developing countries threaten both health security 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, political radicalism and urban violence 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 stability.

This chapter aims to analyse the many contrasts that the typical South Asian city presents. While urban centres in the region are evolving as ‘cities of opportunity’, there are serious ‘urban challenges’ that need to be addressed to ensure equitable human development and prosperity resulting from urbanization. The chapter starts out by looking at the infrastructural challenges that constrain people’s capabilities in urban areas such as lack of access to transport, housing, water supply and sanitation and poor outreach of public services such as solid waste management, energy, health and education. Positioning such infrastructural and service gaps as a major determinant of the ‘urban divide’, the discussion leads to the many facets and manifestations of urban poverty and inequality of opportunity.

While South Asian cities have become centres of affluence on one hand, they house large concentrations of poverty on the other

Urban infrastructure and service delivery challenges

Urban transportation

Urban transport is the single most important component that is instrumental to shaping urban development and urban living. While urban areas may be viewed as engines of growth, urban transport performs the core functionality of these engines. South Asia's urban population has been doubling every 20 years between 1950 and 2010. These trends are placing an enormous strain on transport and mobility in urban areas. Motor vehicle ownership and activity are growing, perhaps more rapidly in South and East Asia than elsewhere. In India, which accounts for over 80 per cent of South Asia's motor vehicles, the fleet has been doubling every 6-7 years since 1980.¹ This trend is causing a wide range of serious impacts, even as it provides mobility to millions.

Increase in the number of private motor vehicles facilitates the movement of motorists, but can reduce the accessibility of others, since spaces given to the vehicles

often form obstacles for pedestrians, cyclists and those with disabilities. Transport interventions must serve deprived areas and target low income groups if they are to improve transport equity and accessibility to all urban residents.²

Traffic congestion is increasing rapidly in many large and even medium sized cities in South Asia, causing significant time and productivity losses, and severely compromising accessibility, in particular for the majority, who do not own motor vehicles. Motor vehicle activity is an increasingly important contributor to urban air pollution and congestion. But of all its impacts, perhaps the most serious result from road traffic accidents. South Asia alone accounts for about a fifth of global road fatalities, with India vying with China for the world's worst road safety record.³

Transport and mobility bottlenecks both vary across countries and in different urban centres within a country. Mega-cities and mid-sized urban centres suffer from bottlenecks in all modes of transport infrastructure and services—poor condition of roads, lack of intraregional connectivity between national road networks, unreliable and overall costly road transport services, unrealized high potential for rail and inland water freight transport which has led to the excessive use of road transport, inadequate road and rail connectivity of ports with the hinterland and others. Some common transport bottlenecks across cities in South Asia include excessive motorization and lack of public transportation and mass transit systems. Yet each country and within it each city varies with respect to its peculiar urban transportation challenges. (See tables 4.1 and 4.2).

In *India*, even though urbanization has been growing rapidly, little attention has been paid to urban mass transport systems. Road transport plays a major role in providing passenger mobility in urban India. Although rail-based transport services are available in few mega-cities, they hardly play any role in meeting the transport demand in rest of the million plus cities. The present urban rail services in

Table 4.1 Mode of transportation in selected South Asian cities

City	Private transport (%)	Public transport (%)	Non-motorized transport (%)
Lahore	24	16	60
Karachi	27	23	50
Delhi	18	40	42
Mumbai	18	60	22
Kolkata	5	78	17

Source: Imran 2009.

Table 4.2 Quality of infrastructure rankings for selected South Asian countries

	Quality of overall infrastructure	Road quality	Railroad quality	Electricity supply quality
Pakistan	3.5	3.7	2.8	2.0
India	3.8	3.4	4.4	3.1
Bangladesh	2.8	2.9	2.5	1.6
Nepal	2.7	2.5	1.1	1.3
Sri Lanka	4.7	4.5	3.8	5.0

Source: WEF 2011.

Box 4.1 Role of autorickshaws in promoting sustainable urban transport in India

In the face of increased demand for transport, the autorickshaw has become rather popular in India with production levels doubling between 2003 and 2010. Autorickshaws in India are estimated to serve about 10 to 20 per cent of daily trips made on motorized road transport modes. Autorickshaw services can also promote the use of public transportation by ensuring that all parts of the city have easy access to public transport systems. Moreover, the door-to-door nature of these services ensures that occasional trips to the airport or emergency trips for healthcare can be met

in cities without having to rely on private motor vehicles.

However, in order to successfully tap the potential of autorickshaws as a sustainable mode of transportation in congested Indian cities, it is essential to address challenges of harmful emissions and road safety. Autorickshaws comprising two stroke engines are known to emit harmful chemicals that have adverse impacts on health. Switching from two stroke to four stroke engines can greatly reduce such harmful emissions. Moreover, improvement in rickshaw design to include seat

belts and padding on stiff surfaces will also improve occupant safety in multivehicular collisions.

There have been some recent initiatives in promoting this mode of transportation in Indian cities. The Dial-a-Rickshaw scheme initiated recently in the autorickshaw sector would be making autorickshaw services an attractive door-to-door transport alternative to private motor vehicles for occasional and emergency trips.

Source: Mani et al. 2012.

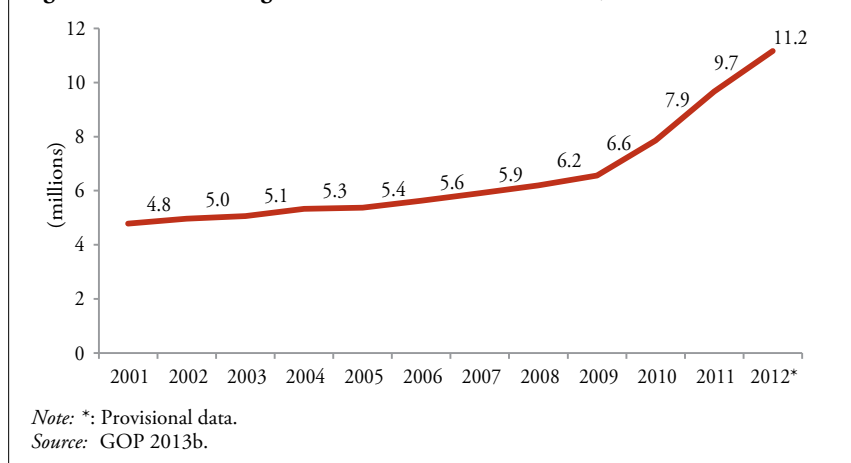
India are extremely limited. Bus transit is the backbone of urban transport in most metropolitan cities. Over the years, urban transport trends in India reveal a shift away from public and non-motorized transportation, while increasing the use of private motor vehicles and intermediate public transportation (primarily autorickshaws and taxis) (see box 4.1). Between 1994 and 2007, public transportation as a mode has experienced a 20-70 per cent decline in different sized Indian cities.⁴ This is largely because the available public transport facilities are not only inadequate but also “over crowded, unreliable or involve long waiting periods.”⁵ Indian cities have also experienced a considerable decline in non-motorized forms of transportation (walking and cycling). The share of cycling as a mode of transportation in cities has come down from an average of 30 per cent in 1994 to less than 11 per cent in 2007,⁶ attributed to an increase in average trip lengths as a result of urban sprawl, inadequate facilities for cycling, and growth in private motor vehicle ownership and usage.⁷ Moreover, rapid economic growth, rising per capita incomes, ease of consumer financing options and favourable government policies toward the automotive sector will continue to drive an unprecedented increase in private motor vehicle ownership and usage in India. Between the fiscal

years 2003-04 and 2009-10, India’s private motor vehicle market registered a growth of more than 85 per cent, at an average annual growth rate of close to 11 per cent.⁸

The urban transport situation in large cities in India is deteriorating. Heavy dependence on road transportation as the primary means for urban dwellers generates problems of access, accessibility, quality and safety. Commuters in these cities are faced with acute road congestion, rising air pollution and a high rate of accident risk. Each year 135,000 people die in traffic crashes on Indian roads. Currently, India has 120 million vehicles, a number that is steadily growing. In 2010, outdoor air pollution contributed to more than 620,000 premature deaths. Plus, urban transport’s energy use and greenhouse gas (GHG) emissions are set to increase almost seven-fold in the next 20 years.⁹

Cities in *Pakistan* are inclined towards using private transportation as opposed to public and non-motorized forms (see figure 4.1).¹⁰ Unlike mega-cities in India, large urban centres in Pakistan have worked towards the development of road networks despite an inherited railway network as an alternative for intercity transport. Rail-based public transport has the potential to carry large numbers of passengers and also results in urban land development by enhancing development activity

Figure 4.1 Number of registered motor vehicles in Pakistan, 2001-12



around rail lines and stations. Fortunately, all Pakistani cities have an infrastructure of railways inherited from British rule. Therefore, rail-based public transport can play a catalytic role in the urban development and regeneration of Pakistani cities. Railways used to be a predominant mode of transportation in the 1950s and 1960s in Pakistan. However, government budget priority towards roads along with the inefficiency of Pakistan Railways due to poor governance has meant a steadily declining share of this important mode of mass transportation for people and freight.

In some cases, urban development policies have a strong bearing on whether a city is able to provide equitable and accessible public transportation for its urban dwellers. Karachi's urban development and land use policies effectively settled lower- and middle-income people into cheaper land available in the periphery of the city. However, jobs were not located near low-income populations nor was a public transport system developed.

Pakistan has had various transport policies to date. However, all policies to provide adequate and reliable public transport in Pakistani cities have failed badly in the presence of continuous demand, high-density mixed land use patterns and a long history of private sector involvement in the provision of public transport. Still, "passengers routinely hang out from doors and windows on unreliable, unsafe, and inconvenient modes of public transport."¹¹

For *Bangladesh*, equitable and safe access to transportation is not only essential to provide mobility to its urban dwellers, but this sector is one of the most important in terms of employment. About 80 per cent of the total passenger traffic in the country is carried through roads. Bangladesh Railways, primarily a passenger railway, carries approximately 7 per cent of the national passenger and freight traffic. The majority of rail traffic is carried between Chittagong and Dhaka, which is the country's most important transport corridor.¹²

In Dhaka alone the transport sector comprises about 450,000 to 580,000 employees and workers.¹³ Dhaka is one of the fastest growing mega-cities in the world. At the same time it is consistently ranked as one of the world's most unliveable cities in the Global Liveability Report. Traffic congestion and air pollution play a major role in these poor rankings. Since 2000, its population has more than doubled and it is projected to grow from 17 million in 2012 to 25 million in 2025. Dhaka is also one of the most densely populated cities in the world, with 45,508 people per square kilometre in the core area. High population density, limited inhabitable land and poor infrastructure result in congestion and constrain the ability of the urban transport system to provide accessible transportation to all urban residents.

Car ownership and usage are still low because of lack of disposable income, but these figures are increasing fast with a growing middle class. In 2010, only 150,000 private cars and 500,000 other motorized vehicles were registered in Dhaka. However, with annual motorization growth of eight per cent, there could be up to half a million cars in 2025, increasing local air pollutants and GHG emissions from the transport sector.¹⁴ Without better planning and strategy, the metropolitan area will keep on sprawling north and south anarchically along the existing axis.

Nepal emerges as the lowest ranked country for its quality of overall infrastructure in 2011-12 as seen from table 4.2. The low ranking is driven mainly by Nepal's

poor road network, rail and air transport infrastructure and the limited reliability of Nepal's electricity supply.

Nepal has the lowest road density in South Asia (0.6 kilometres per 1,000 people). About 50 per cent of Nepal's roads are concentrated in the less rugged Terai zone, which has 23 per cent of the country's land area. Moreover, much of the existing road network is not trafficable as about 45 per cent of the road network is unpaved. This means that its population lacks a year round access to roads.¹⁵ In Nepal's urban areas, the average travel time to a paved road is about 11 minutes and to a commercial bank it is 21 minutes.¹⁶

One of the major problems of the Kathmandu Valley, the largest urban agglomeration in Nepal, is its poor road network, which is very narrow to accommodate the ever-increasing traffic. Most of the roads are just two lanes. Unmaintained roads and ineffective road management is further impeded by the limited budget allocated to road construction and maintenance. Due to narrow and unplanned roads there are frequent traffic jams. The unsystematic shops, which have been built in a haphazard manner often add to the already problematic traffic jams. Speedy road construction and maintenance is important for the rapidly urbanizing Kathmandu Valley both to attract foreign investments and tourists. There are limited pedestrian paths in the city. Public transportation is not very reliable and considered unsafe which have added to the congestion. The other main contributor to road congestion is cheap vehicle loans provided by banks and financial institutions.

In *Sri Lanka*, the share of public transport among different vehicle modes remains very high in Sri Lankan cities compared with other cities in South Asia, but it has been falling because quality and reliability are insufficient. The lack of adequate transportation linking the core to the peripheral parts of urban areas force low-income households to live in informal settlements in the central city, close to where they work. Although pollution and traffic

congestion have yet to become major problems in most cities, in the Colombo Metropolitan Region alone the annual costs of congestion are estimated at US\$286 million.¹⁷ Additionally, road safety has been deteriorating due to lack of pedestrian facilities, of road safety awareness and of enforcement of traffic rules. Accident costs in the country are estimated at US\$275 million a year, with about 2,600 road traffic fatalities.¹⁸ Substantial interventions are required to enable efficient use of urban roads. The World Bank estimates an annual investment requirement in urban roads of about 0.2-0.3 per cent of GDP over the next decade. Beyond that, regulation of buses and three-wheelers, promotion of public transport, construction of suburban multimodal passenger and freight nodes (to divert traffic from congested economic centres), better traffic management and intelligent transport systems are required to promote efficient use of road space and to reduce congestion, pollution and road accidents. Road user fees and congestion pricing (fuel taxes, parking fees, peak-hour charges) could also be adopted to make users pay for the public costs of private vehicle use.

In Sri Lanka, much has to be done to improve public transport in the main cities. As per capita incomes are increasing, most families will be able to afford a private vehicle.¹⁹ This will put enormous pressure on the transport infrastructure, especially the road network in urban and suburban areas where economic growth is concentrated.

There is a need for urban planning in South Asia to look at both demand management for the proliferation of private motor vehicles as well as overcoming the chronic underinvestment in the public transportation sector. So far, South Asia's cities have not made much progress in implementing demand side management measures, such as congestion pricing, restraints on parking, etc. India has taken the lead in implementing some recent measures such as the 2006 National Urban Transport Policy (NUTP) that has rightly recognized

There is a need for urban planning in South Asia to look at demand management for the proliferation of private motor vehicles

Many a times, it is the poor urban dwellers living in peripheral urban areas that are excluded from vital urban services

the need for changes in the way the country invested in urban transport to improve the quality of life for people in cities. Cities that wish to access funds from the government's US\$20 million scheme for upgrading urban infrastructure, the Jawaharlal Nehru National Urban Renewal Mission (JnNURM), must comply with standards set out in the NUTP, such as equitable allocation of road space, prioritizing the use of public transport and integrating land use and transport planning (see chapter 7). In 2009, Ahmedabad used this funding to launch *Janmarg*, India's first Bus Rapid Transit (BRT) system, which has an average daily ridership of 132,033 passengers.²⁰ This system has served as a success story to encourage other cities around the country to plan and implement similar systems. The concept of BRT is gaining acceptance as a means to scale up mass transit in other cities in South Asia. Lahore launched its first BRT in 2013. Dhaka, Karachi and other metropolitan areas are also looking towards BRT systems as efficient means of improving access to public transportation for urban residents.

Urban service delivery deficits: Water supply, sanitation, sewerage and solid waste management

Rapid urbanization is intensifying the municipal infrastructural deficit and urban service delivery gaps across South Asia. Municipal infrastructure, for example, water, sanitation, solid waste management and electricity supply are not only important for a city's liveability, but also for its competitiveness. These have an important bearing on the productivity and capability of urban dwellers and can prevent them from having an equal opportunity for participating in the city's economic growth.

Many a times, it is the poor urban dwellers living in peripheral urban areas that are excluded from vital urban services. For instance, the brunt of the burden of poor quality of water delivery is borne by the poor. Low income households without access to public networks have to rely typi-

cally on market sources to access water at a higher price. Intermittent water supplies force the poor to forgo work on days when water arrives, as they have to stand in line on those days to collect the same. In addition, because most of the urban poor reside in informal, non-notified and squatter settlements, they are conveniently 'not recognized' for purposes of mapping out public service infrastructure grids. Hence, piped water connections, solid waste management and sewerage are hardly found in areas where the urban poor live.

This section aims to present a clear picture of the deficiency and neglect of the state of municipal infrastructure and urban service delivery in countries that house many of South Asia's most important cities:

India

With rapid increase in the urban population and the continuing expansion of city limits, ensuring safe, adequate and equitable access to municipal services is becoming difficult. With regard to water supply, only 70.6 per cent of the urban population is covered by individual connections and stand posts. Moreover, the duration of water supply in Indian cities ranges from only 1 to 6 hours. Even when water supply is adequate, poor maintenance and inadequate replacement lead to technical losses in the distribution system.²¹ It is estimated that up to 70 per cent of water leakages result from pipes for consumer connection and due to malfunctioning of metres. The low pressure of water in the system encourages wealthy city dwellers to install pressure pumps for residential connections. Those who can afford, invest in storage tanks to ensure continuous water supply. However, most poor urban households do not have the adequate space or finances for such fixes, and thus bear the brunt of the majority of water access, quality and reliability problems (see box 4.2).

The problem of sanitation is worse in urban centres than in rural areas in the country. A study estimates that the eco-

nomic impact of poor sanitary conditions is the greatest for the poorest 20 per cent of the population. In the City Sanitation Study carried out by the Ministry of Urban Development in India, it was found that 4,861 out of the 5,161 cities and towns in India did not even have a partial sewerage network. Almost 50 per cent of households in cities like Bangalore and Hyderabad do not have sewerage connections. About 18 per cent of urban households do not have access to sanitation facilities and practice open defecation.²² Cities like Chandigarh, Mysore, Surat and New Delhi fared better in terms of 'health and cleanliness'.²³

Solid waste collection ranges from 70-90 per cent in major metropolitan cities in India, but is less than 50 per cent in smaller cities.²⁴ The proportion of organic waste to total waste is much higher in Indian cities. For instance, New Delhi and Bangalore generate 80 and 72 per cent of their total waste as organic. The fact that a large part (over 60 per cent) of India's waste is biodegradable provides an opportunity for composting. However, neither households nor municipalities in India practice segregation of biodegradable waste from the rest. Some cities such as Surat and Rajkot have successfully implemented modern techniques for processing of solid waste to the benefit of their urban dwellers. Other cities in India are now experiment-

ing with engaging citizens, especially slum dwellers in collection of solid waste (see box 4.3).

Pakistan

In Pakistan, the level of urbanization has increased from only 17 per cent in 1951 to 36 per cent in 2010 and its annual average growth rate is 3.1 per cent (1990-2010), which is higher as compared to South Asia's figure of 2.7 per cent during the same period. The rapid pace of urbanization poses significant challenges in terms of governance, urban poverty and public service delivery. Lahore's population, currently about 7 million, will exceed 10 million. Karachi's will exceed 20 million. There are more than 10 cities where the urban population will be more than one million in 2030.²⁵ These conditions generate various challenges for the availability of public amenities.

Most urban households in Pakistan rely on piped water and motor pumps for extracting groundwater for drinking purposes. Similarly, urban areas as a whole tend to fare much better than their rural counterparts in the percentage of population with access to flush toilets (94 per cent versus 51 per cent in rural areas) and underground drains for sanitation (52 per cent versus 5 per cent in rural areas).²⁶ The disparity in access to water and sanita-

Box 4.2 Innovative solutions to India's urban water woes

Water poverty is an important facet of urban poverty in India's major cities. Access to water poses a huge challenge for India's urban poor. Slums across India face a similar shortage of infrastructure. Slum dwellers either access water through private tankers, or those who cannot afford to do so suffer from irregularity in consumption and the opportunity cost of waiting for municipal supply of water. Studies estimate that only 47 per cent of Indian households have a source of water within the premises; about 36 per cent of households still have to fetch water from a

source located at a distance at least a 100 metres from their houses. The opportunity costs of water collection in terms of time spent is borne disproportionately by women and children.

NGOs and civil society in India, increasingly in partnerships with local governments, are now experimenting with innovative solutions to water issues faced by urban residents. Next Drop is one such social enterprise that has introduced a Smart Grid solution that leverages mobile technology to collect and share water delivery information with residents and wa-

ter utilities. Citizens are provided information about water availability through text messages 30-60 minutes before the start of municipal water supply for a fee of about INR 10 (US\$0.16).

Next Drop currently serves only about 25,000 households in Hubly-Dharwad and has also recently expanded outreach to Bangalore. Such initiatives can be successfully scaled up in partnerships with municipal governments to serve as efficient solutions to urban water shortages.

Sources: Desai 2013 and Khambete 2012.

Box 4.3 Bangalore's initiative at recognizing and organizing informal waste pickers

Engaging slum dwellers for waste picking has the dual advantage of helping municipal governments manage solid waste as well as providing organized formal employment opportunities for these economically disadvantaged urban residents. Bangalore's municipal government spends an estimated INR200 crore (approximately US\$44 million) on solid waste management. In addition to formal waste management by the government, a large informal workforce consisting of waste pickers and stakeholders from the recycling industry play an important role in solid waste management, helping to retrieve about 600 tonnes of recyclable waste per day. This results in savings for the municipal government of up to INR13.5 lakh

(approximately US\$30,000) per day.

A survey on the different categories of waste pickers and their socio-economic conditions found a significant number of young (18 to 40 years of age), illiterate and economically and socially disadvantaged people engaged in waste picking in the city. About 70 per cent of the waste pickers surveyed earned between INR100 and INR200 per day; face inadequate access to water, sanitation and housing facilities, often living in temporary accommodation; and lack basic identity cards.

The local government of Bangalore, along with a group of grassroots non-governmental organizations (NGOs) have come together to make the waste pickers

'visible' in the local economy. The efforts have started with the process of registering these waste pickers and issuing them photo identity cards, mobilizing waste pickers through a network and ensuring a minimum wage and food for the waste pickers and in some cases providing health insurance under the Government's *Arogyashri* scheme for tertiary medical care. The network has also lobbied for the creation of a special social security scheme for waste pickers under the Bangalore Municipal Corporation's urban poverty alleviation programme and for the creation of opportunities for waste pickers to access various government schemes to start new cooperative businesses.

Source: Chengappa 2013.

tion within urban areas, especially in the de-notified slums spread across Pakistan's major cities is rather stark and largely goes undocumented.

Solid waste in Pakistan is largely unmanaged. According to the National Conservation Strategy, Pakistan generates an estimated 48,000 tonnes of solid waste per day of which almost 20,000 tonnes is generated in urban areas.²⁷ The metropolitan governments recover fewer than 60 per cent of the solid waste generated in the cities.²⁸ In the worst cases, solid waste is left to litter or decompose on streets and empty lots. Even when the municipal authorities collect solid waste, it is dumped and burnt in open areas. While solid waste directorates do exist in most large urban centres, the service offered by the directorates is irregular, inefficient and inadequate. Moreover, the final disposal of waste involves either dumping in non-engineered landfills or the waste is burnt, which further pollutes the environment.

Bangladesh

Bangladesh emerges as a clear laggard when compared to the rest of South Asia

for improved access to drinking water and sanitation coverage in urban areas. According to the Joint Monitoring Programme of the World Health Organization (WHO) and United Nations Children's Fund (UNICEF), access to improved drinking water sources in urban areas of Bangladesh has declined from 88 per cent in 1990 to 85 per cent in 2008. Access to improved sanitation remains embarrassingly low at 55 per cent in 2011.²⁹

In Dhaka alone, more than five million people lack access to a public toilet. Poor access to sanitation costs Bangladesh over BTK295 billion (US\$3.88 billion) a year—mostly attributed to healthcare costs—which amounts to 6.3 per cent of Bangladesh's total GDP.³⁰ A study by the Centre for Urban Studies, Dhaka, estimates that just 47 public toilets are operating with open access, which means that one-third of the city's population is forced to defecate in public, along roadsides, alleyways, railroad tracks or riverbanks.³¹

The situation is far worse in slums (table 4.3). In a survey in 2009 about the living conditions of the urban poor in Bangladesh, 58 per cent of all respondents reported water-sanitation-hygiene related

diseases in their households during the three-month period preceding the survey. In Dhaka, extensive pumping of groundwater has depleted some water sources, calling into question the sustainability of the city's groundwater supply. Surface water as a viable water source is also problematic as it is often polluted by untreated sewage and industrial waste.

Sanitation coverage in urban slums is also very low. Only nine per cent of households in urban slums have access to improved sanitation facilities, compared with a national average of around 55 per cent. Most slum dwellers have no option but to dispose in drains, open fields and river banks. The use of hanging latrines, suspended over ponds and rivers is twice as high in urban slums than the national average (table 4.3). This means that urban water sources are more likely to be contaminated with raw sewage. Community latrines in slums are often dirty, badly maintained and lack privacy. Residents have to wait in line to access them and this sometimes leads to heated exchanges. Communal latrines also pose a security risk to women should they need to use them at night.³²

Nepal

In Nepal, urban access to improved water supply is high. Ninety-three per cent of Nepal's urban population had access to an improved source for drinking water in 2010. Even though access has improved, the quality of the service remains inadequate. Access to piped water in urban areas declined from 68 per cent to 58 per cent from 2003 to 2010 as a result of inadequate service delivery and sustained increase in the urban population (see table 4.4). Moreover, the country's piped drinking water is unsafe in most locations and throughout most of the year and several cities face a chronic shortage of water due to unplanned urban growth combined with the lack of expansion of the piped network. Most urban households receive less than 50 litres of water a day.

The Kathmandu Valley in particular has the worst water supply system in Nepal. The daily demand for water in the valley is estimated at approximately 220 million litres, however supply is no more than 100 million litres per day.³³ Residents have responded to water shortages by pumping out water privately through the extraction of groundwater, hence threatening the sustainability of this resource.

Access to toilets in urban Nepal has improved from 81 per cent to 85 per cent between 2003 and 2010. However, adequate sanitation involves more than enhancing mere 'access'. Taking into account toilet quality, the share of urban households with access to improved sanitation is only 48 per cent as of 2010. This is considerably lower than other countries in the region such as India (58 per cent), Bangladesh (57 per cent), Pakistan (72 per cent) and Sri Lanka (88 per cent).³⁴ Inadequate water and sanitation services in urban areas lead to waterborne diseases, which tend to affect the poor and marginalized urban dwellers more. It also affects the urban environment due to the discharge of untreated wastewater and solid waste into rivers and water bodies.

Solid waste management is one of the most pressing environmental problems in urban areas in Nepal. Collection is low

Table 4.3 Urban inequities in access to water and sanitation in Bangladesh

	Urban	Rural	Slum
% of households using improved sanitation facilities	54	54	9
Use of open or hanging latrines (%)	0.02	0.05	0.1
Estimated investment need for urban water supply between 2010-15 (billions)	US\$2.36	US\$0.64	...

Source: UNICEF, Bangladesh 2010.

Table 4.4 Percentage share of urban households with access to electricity, piped water supply and sanitation in Nepal

	Access to electricity	Piped water supply	Access to sanitation
2003	87	68	81
2008	93	62	85
2010	96	58	85

Source: Muzzini and Aparicio 2013.

The typical statistics reported for urban areas average out access for the whole city

and only two municipalities dispose off waste in a sanitary landfill. In a study of eight municipalities of Nepal, only 25 to 45 per cent households had regular access to waste collection. In the same study, households ranked solid waste and drainage as the worst performing infrastructure sector in these urban areas. It was also found that only two municipalities in Nepal (Pokhara and Ghorahi) dispose off waste in a sanitary landfill.³⁵ In other cases the main waste disposal sites are riverbanks, depressed land and dumps, open pits or temporary open piles. Inadequate sanitation in urban areas is an obstacle not only for the quality of life for urban dwellers but also for economic development.

Solid waste management deserves particular attention in the Kathmandu Valley area. In this area, an estimated 484 tonnes of solid waste is generated every day, out of which only 414 tonnes are collected.³⁶ The inadequacy of the solid waste management infrastructure as well as the poor regulatory environment has resulted in the Bagmati River to become a garbage dump for the urban areas in the vicinity.

Sri Lanka

Sri Lanka's urban areas rank high for liveability and quality of urban services when compared to other countries in South Asia.³⁷ Access to improved water and sanitation is high in urban areas, with about 91 per cent of the population having access to 'improved and sufficient water within 200 metres' in 2008, and 87 per cent has 'improved and private sanitation access'.³⁸ Access to sanitation varies across different cities, with the highest in Colombo and Gampaha (96 per cent) and the lowest in Batticaloa (57 per cent).³⁹

Even though access is high, the system cannot cope with the growth of cities. The Colombo Municipal Council is the only local authority with a sewerage network; its access rate is estimated at 80 per cent and part of the system requires urgent repair. In most other cities, the current system of septic-tank sewerage man-

agement is becoming less and less sustainable due to a lack of regulation of septic systems, contamination of groundwater and improper sludge disposal. Inadequate sewerage services also encourage uncontrolled discharge of sewage into waterways and marshes and the discharge of pollutants by factories is poorly controlled.

With regard to water supply, even though access is high there is a need to ensure sustainability of water resources through better management of the available water resources. In some urban districts like Jaffna, Kilinochchi and Trincomalee, urban dwellers rely on open and shallow wells or pump ground water extensively to fulfil their water needs.

Municipal solid waste collection is not keeping up with urbanization and unsanitary disposal of municipal waste is a serious environmental hazard. On average, only 30 per cent of solid waste generated is collected by truck, with rates between 9 and 64 per cent and a wide variation between rural and urban areas. Sri Lanka has no environmentally acceptable waste disposal facilities and toxic waste is not safely disposed. Colombo produces about 700-800 tonnes of garbage a day, and there are no proper sanitary landfill sites for disposal.⁴⁰

Access to urban education and health

Most urban areas in South Asia fare better on access to education and health outcomes when compared to rural areas (table 4.5). The typical statistics reported for urban areas average out access for the whole city, thus masking the wide gaps that exist in access to these capability-enhancing services between the urban rich and the urban poor within a city. Urban disparities in health and education also interact with other urban challenges. Urban migrants who tend to live in informal settlements typically lack provision of basic services like water and sanitation. The lack of infrastructure and services can also have indirect effects on education, for instance through sanitation, poor health and the

time needed to collect water.⁴¹ The enrolment numbers and health indicators for many of the region's cities clearly show the disparity between slum and non-slum areas within a city.

In Bangladesh, access to education is substantially higher for urban areas than for rural areas and Dhaka has the best record in the country. UNICEF reports that primary net attendance rates were 83.9 per cent in urban areas compared to 80.8 per cent in rural areas and 84.1 per cent in (mostly urban) Dhaka district.⁴² However, for urban slums the rate falls dramatically, to 65.1 per cent. At the secondary level, attendance rates were 53 per cent for urban areas, 48 per cent for rural, 49 per cent for Dhaka district and only 18 per cent in slums.

Similar evidence was found in a study on eight of India's cities—Delhi, Meerut, Kolkata, Indore, Mumbai, Nagpur, Hyderabad and Chennai. School attendance for both boys and girls aged 6-17 years was much lower among the urban poor in every city. In Delhi, Meerut, and Kolkata, less than half of poor children aged 6-17 years were attending school. The same study found that the educational level of poor women and women in slums was strikingly low when compared to education levels of the non-slum population for these Indian cities. For some cities these differences were blatantly large with more than three-quarters of poor women in Delhi (82 per cent), Meerut (81 per cent) and Kolkata (77 per cent) having little or no education.⁴³

Apart from slums, even low-income neighbourhoods with poor connections to the city can face deprivation in adequate schooling and health. This is particularly true for many of the sprawling new settlements in the outskirts of cities like Lahore, Delhi and Dhaka. The difficulty in access arises not because of physical accessibility, but also because of the costs and time involved in transportation. In Mumbai, for instance, while 50 per cent of slums have no access to primary schools, this percentage is even higher in the infor-

Table 4.5 Disparities in access to urban education in South Asia, 2004-06*

	India	Pakistan	Bangladesh	Nepal
Net enrolment in primary education (male)				
Urban	80.1	78.1	79.0	93.5
Rural	75.3	66.4	81.5	89.1
Non-slum	86.5	83.4	92.5	98.5
Slum	77.7	76.9	77.7	91.6
Total	76.5	69.7	81.0	89.7
Net enrolment in primary education (female)				
Urban	80.5	76.4	80.9	89.4
Rural	71.5	56.2	85.3	83.3
Non-slum	86.5	87.1	78.4	97.7
Slum	78.4	73.7	81.1	85.8
Total	73.8	62.2	84.4	84.0

Note: *: Data refer to most recent year available.

Source: MHHDC 2014 *Statistical Profile of Urbanization in South Asia*.

mal areas on the outskirts of the city. In Lahore and Chittagong, the number of kindergarten schools for relatively well-to-do households is on the rise, while many children in peripheral low income neighbourhoods have almost no access to education.⁴⁴

The high proportion of slum dwellers in South Asia's cities makes a sizeable proportion of the urban population vulnerable to diseases. Poverty, overcrowding, malnutrition, insufficient garbage disposal, lack of adequate water drainage and unsafe drinking water and sanitation coalesce around the social organization of marginalized populations in urban slums. The five illnesses at the root of a majority of child deaths in developing countries include pneumonia, diarrhoea, malaria, measles and human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS).⁴⁵ Each is prevalent in many urban slums due to substandard living conditions and overcrowding.⁴⁶ Inadequate access to clean water and sanitation, in particular, are a direct cause of a substantial proportion of deaths of infants annually. Poor water quality and quantity and inadequate sanitation are linked to a number of waterborne diseases.

As with education, health indicators are typically better for urban areas when compared to rural areas in South

Asia (table 4.6). However, as shown in table 4.7, there exist considerable disparities in health indicators between slum and non-slum populations in urban areas. For most of South Asia, the percentage of malnourished children and children with incidence of diarrhoea are higher for slum compared to non-slum households.

Health outcomes are intricately linked to urban poverty and access to other urban services. According to the United Nations Human Settlements Programme (UN-Habitat), in India and Bangladesh, the incidence of malnutrition in poor urban areas is more than twice that in non-slum urban areas: for India, the figures are 54 per cent and 21 per cent, respectively, and for Bangladesh, 51.4 per cent and 24 per cent.⁴⁷ The surge in food prices after 2006 has exacerbated the problem of urban food security, especially for slum dwellers and youth and women typically employed in the informal economy.

Table 4.6 Urban-rural differential in under-five infant mortality rates (per 1,000 live births)

	Total	Urban	Rural
India	74	52	82
Pakistan	93	78	100
Bangladesh	64	53	66
Nepal	79	47	84

Source: UNICEF, Bangladesh 2010.

Improving access to urban education and health for the urban poor does not simply translate to building more schools or hospitals. These may be necessary conditions, but they are by no means sufficient. It is important to understand that removing barriers to human development for urban residents requires a consolidated approach towards urban planning. It starts with recognizing the link between poor access to urban services like water, sanitation, solid waste management and energy and poor education and health outcomes. It involves recognizing the myriad of informal settlements and slums not notified by city governments and extending immunization facilities to them. It involves engaging the urban poor by making them stakeholders of their own human progress. It involves providing an equal opportunity to all urban residents to be able to realize the 'urban dream' that attracted them to the cities in the first place.

Urban housing and spatial divide in South Asia's cities

The character of urbanization in most South Asian cities has resulted in spatial divides in South Asia's big and small cities. Poor urban planning, inefficient land and housing markets and ineffective financing options to provide affordable housing for the region's growing urban population have all contributed to increasing spatial segregation and 'urban sprawl'. South Asia's metropolitan areas are growing through scattered and haphazard development of miscellaneous types of land use on the urban periphery. This kind of haphazard growth adds to the urban divide, pushing social segregation along economic lines that result in spatial differences in wealth and quality of life across various parts of cities and metropolitan areas, run-down inner cities and more suburbs.

Most South Asian cities have bypassed the issue of planning at the initial stages of urban growth. This has resulted in perverse consequences of congestion, inequalities, segregation, lack of public space

Table 4.7 Urban disparities in selected health indicators in South Asia, 2005-07*

	India	Pakistan	Bangladesh	Nepal
Percentage of malnourished children under-five				
Urban	34.3	40.4**	30.6	29.0
Rural	45.2	54.5**	37.4	44.6
Non-slum	21.0	37.2**	11.2	15.6
Slum	39.5	50.7**	37.2	34.8
Total	42.5	49.6**	36.0	42.7
Percentage of children with diarrhoea				
Urban	8.9	22.1	10.2	11.5
Rural	9.0	21.8	9.7	11.9
Non-slum	8.2	19.7	6.3	11.7
Slum	9.1	21.5	11.5	11.4
Total	9.0	...	9.8	11.9

Notes: *: Data refer to most recent year available. **: Data refer to 1990.

Source: MHHDC 2014 *Statistical Profile of Urbanization in South Asia*.

Box 4.4 Divided cities: A tale of two cities—within the same city?

A typical South Asian city presents two very different realities juxtaposed side by side—highways, mega-malls, skyscrapers and gated villa communities that symbolize growing wealth and prosperity are intermixed with slums and informal squatter settlements where the urban poor live and work in low-paid, insecure, irregular jobs in the informal sector as domestic helpers, street vendors, factory workers, and home-based workers.

The ‘world class cities’ that South Asia is developing are not marked by equitable access to health and education facilities, public transport, better housing for urban residents and safety. Rather, in these urban centres differences are maintained, classes are kept separate and the elite are

able to live and work in closed enclaves (often gated communities). This contradicts all established knowledge on inclusive and mixed spaces lending themselves to greater safety. Cities where spaces lend themselves to diverse uses are considered safer.

Private provision of security has been growing in most countries over the past decade. Many cities in the region have seen increased wealth of the elite. This has led to a growth in gated and secure communities, where security is privatized through private guards, sophisticated alarm systems and closed-circuit television (CCTV). Privatization of security has many possible impacts on the community. The provision of safety is only intended for

part of the citizenry and not all. The main goal is to protect the people and property inside the enclave against outsiders. This has created a city with large areas of poverty and slums and small enclaves of extreme wealth.

The spatial spread of cities has also been reconfigured, with city boundaries changing in line with the pace of urbanization. The traditional centre of the city now comprises only a small part of it, surrounded by a greater area of both planned and unplanned developments. Many of the unplanned developments in the fast urbanizing cities of South Asia consist of squatter settlements, which can sometimes comprise up to 40-50 per cent of people in mega-cities.

Source: UN-ESCAP and UN-Habitat 2009.

and inadequate street patterns. An especially divisive aspect of urbanization has been the recent rapid expansion of gated communities and other protected enclaves of wealth. As more and more tracts of land and civic services are monopolized by those with the most resources, urban amenities are systematically denied to residents with lower incomes. On top of spatial segregation, gated communities and protected enclaves of wealth also result in social and economic segregation and even outright social exclusion. In most cases, it is the socially marginalized groups (religious and ethnic minorities) that form a majority of the population in slums. Thus, they suffer most from lack of access to decent shelter and opportunities; this is especially the case when their neighbourhoods are located far away from the city and the long commutes penalize them in terms of cost and time. In the Indian city of Jaipur, for instance, underprivileged (‘scheduled’) castes and tribes contribute 61 per cent to the slum population, although they represent only a combined 16.1 per cent of the total city population (box 4.4).⁴⁸

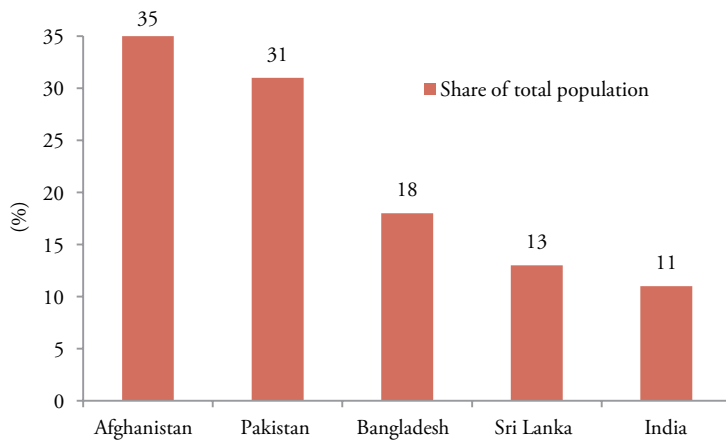
The rapid pace of urbanization in South Asia has created a massive shortage of affordable housing especially for

low-income families. Household savings have been inadequate to fund housing for a large number of South Asian families. Compounding the housing shortages are high room-density figures (more than 3.5 people per room in India and Pakistan) and the pervasiveness of slum dwelling areas and squatter settlements, sometimes on footpaths or even in abandoned sewage pipes. Nearly half of the major metropolitan areas in the region are taken up by slum dwellings—Bangladesh alone has more than 2,100 slums, and India over 52,000.⁴⁹

There is a shortage of more than 38 million housing units in the South Asian region, not counting housing in need of repair or replacement (see figure 4.2). Taking into account average household size, this translates into 212.5 million homeless people, 14 per cent of the region’s total population of 1.5 billion.⁵⁰

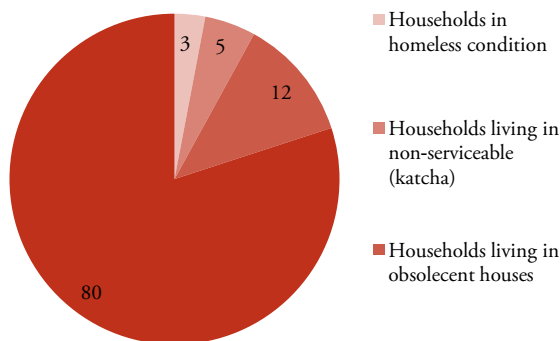
India’s urban housing shortage is estimated at nearly 18.78 million households in 2012, according to a report by the Ministry of Housing and Urban Poverty Alleviation (MHUPA).⁵¹ Besides those living in dilapidated houses, 80 per cent of these households are living in congested houses. The report also highlights that nearly one million households are living

Figure 4.2 Housing shortages in South Asia



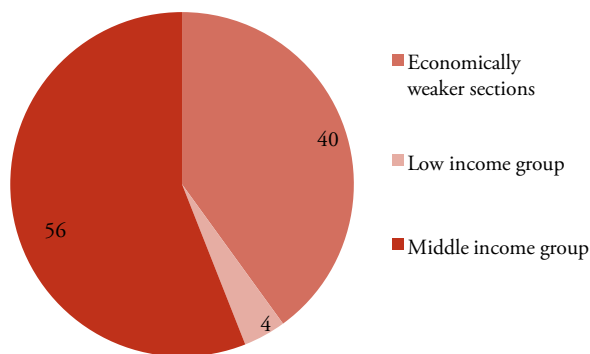
Sources: World Bank 2009 and Nenova 2010.

Figure 4.3 Urban housing shortage in India, 2012
(%)



Source: GOI 2012a.

Figure 4.4 Urban housing shortage among different income group in India, 2012
(%)



Source: GOI 2012a.

in non-serviceable *katcha* houses. What is worse is that the urban housing shortage is significant across the economically weaker sections and the low-income groups (see figures 4.3 and 4.4).

The housing backlog in Pakistan was at an estimated 7.57 million units in 2009—2.5 million of them in urban areas. In Karachi, an estimated 60 per cent of the population lives in *katchi abadis*. Informal settlements do not fall under the realm of responsibility of city administrations and as such tend to be unserved or critically underserved.⁵²

For Bangladesh, housing shortages in urban areas are compounded by the temporary nature of most dwellings. As one of the most densely populated countries in the world, land prices are high in Bangladesh, natural disasters are frequent and only 23 per cent of all housing in urban centres is of a permanent nature. Close to half of all housing units in the country are made of temporary materials, which require replacement every one to five years.⁵³

In Nepal too, rapid urbanization has overtaken the capacity of existing institutions to manage land use and spatial growth at the metropolitan level. These challenges are particularly acute in the Kathmandu Valley where unplanned growth and poor enforcement of regulation have led to irregular, substandard and inaccessible housing patterns and loss of open space. The Kathmandu Valley is experiencing uncontrolled densification, with residential density exceeding 1,000 people per hectare and resulting land subdivisions with many houses being built on plots as small as 15 to 45 square metres.⁵⁴ Most of this housing is informal in nature, built with local materials at substandard levels and does not meet the requirements for health, safety, seismic scales and the external environment. Rapid urbanization and the resulting construction of new houses in Nepal are infringing on the available open space in urban areas. The availability of open space is essential to protect the inhabitants of the Valley from seismic risk, given the Valley's seismic vulnerability.

What is problematic is that urban housing shortages in South Asia are hiding behind squatter settlements and higher persons-per-room densities. The average persons-per-room count in urban areas is

high: 3.5 in India and Pakistan. That density is comparable regionally, but worse than in developed countries: density is 0.5 persons per room in the US and 1.1 in the European Union. Density in Sri Lanka is an outlier at 1.1 persons per room.⁵⁵

South Asian countries share a common need for expansion of housing to accommodate the region's growing urban population. Each country, however, is at a different level of development with regard to its urban housing needs. Key areas which need to be prioritized in improving access to urban housing include efficient land administration and expanding housing finance to low-income groups which are most likely to resort to living in informal housing units and slums.

Urban poverty and inequality

While some countries in South Asia have experienced an overall decline in absolute poverty, there has been a shift in the geographical occurrence of poverty from rural to urban in line with the increasing urban population. The ratio of urban poor to total poor has been increasing for some key South Asian cities, implying that poverty has become mainly an urban problem. South Asia has the highest urban poverty levels in Asia and the Pacific with countries like Bangladesh (62 per cent), Nepal (58 per cent), Pakistan (47 per cent) and India (29 per cent) reporting high proportions of urban populations living in slums.⁵⁶

Urban poverty is a dynamic condition that extends beyond monetary benchmarks (under US\$1 and US\$2 a day) to a wide range of vulnerabilities and risks. Some characteristics of the urban poor include lower than average life expectancy, higher rates of infant mortality, chronic malnutrition, a disproportionate amount of household expenditure devoted to food, low school enrolment rates, high rates of illiteracy, weak access to key services and poor public infrastructure. The urban poor are also characterized by a high involvement in informal sector activities, limited security of tenure and increased vulnerabil-

ity to urban violence.

Estimates of urban poverty and inequality in most South Asian countries are incomplete and outdated, often being extrapolated from decade old census information, as in the case of Pakistan. More importantly, urban poverty estimates based on income mask the multidimensional nature of urban poverty. Besides income poverty, inequality in cities arising from overcrowded housing and insecure tenure; inadequate access to safe and affordable water supply, sanitation, electricity and transport services; and limited schools and healthcare facilities increase the vulnerability of the urban poor. In 2010, while 96 per cent of South Asians living in urban areas had access to improved drinking water through public taps and water points, only 51 per cent had in-house piped connections. Only 64 per cent had access to improved sanitation and 18 per cent used shared facilities.⁵⁷ Poor urban women, especially households headed by women and those in socially excluded groups, are the most vulnerable and negatively impacted in these environments.

The 'invisible' poor and the informal economy

Most of the urban poor in South Asia's sprawling cities are actually employed and tend to have higher incomes than their rural counterparts. However, despite having a higher income, the urban poor cannot live a decent life, because the higher income is taken away by a number of additional (often urban-specific) costs—a high cost of living because of the highly monetized access to goods and services; exclusion from public services because of the extra-legal status of slum dwellers and inhabitants of informal settlements; higher cost of services provided by the private sector for lack of public sector provision; the high health cost of living in an unhealthy environment with inadequate water supply, sanitation, drainage and solid waste collection.⁵⁸ As a result, the urban poor have less money to spend on basic necessities, their source of

Urban poverty is a dynamic condition that extends beyond monetary benchmarks to a wide range of vulnerabilities and risks

Many cities in South Asia have witnessed this coexistence of the informal economy and urban poverty

income is insecure and their health is affected by poor living and working conditions.

South Asia is known to have the highest incidence of the informal economy in terms of number of persons employed. For example, 74 per cent of the non-agricultural labour force is employed in the informal economy in Bangladesh.⁵⁹

Many in the working poor category in South Asia are employed in the informal economy, with low wages and little job security. Many cities in South Asia have witnessed this coexistence of the informal economy and urban poverty. For instance, in India, a study estimated that the poverty rate of households whose members earned their income from the informal sector was 25.7 per cent, as opposed to 7.1 per cent for those households earning an income in the formal economy.⁶⁰ As much as 84 per cent of the non-agricultural sector's workforce in India is informally employed, thus making a large part of urban dwellers vulnerable to deprivations.⁶¹

Despite suffering at multiple levels, such working poor typically go unnoticed in national and city-level poverty statistics based on income measures. These 'invisible poor' are a large part of what constitutes urban poverty in South Asia. It is essential that the working poor, especially women, in the informal economy are visible in labour force statistics. More countries need to collect statistics on informal employment and countries that already do so need to improve the quality of the statistics that they collect.

Gender and urban poverty

Women are particularly vulnerable to the risks associated with urban poverty. Lack of housing and security of tenure in slums impoverish single mothers and their children, increasing women's vulnerability to evictions and exploitation in shared tenures or by landlords. A lack of access to infrastructure and services means that women and girls are preoccupied with household chores that deprive them of education, in-

come generating activities and leisure.

Inadequate transport services in South Asia's cities restrict women's opportunities for employment and their access to markets. In the Sanjay slum of Delhi, a study by UN-Habitat found 75 per cent of men working within 12 kilometres of their homes, while women worked within 5 kilometres of their homes, indicating their mobility constraints due to household responsibilities, cultural norms and unsafe and inaccessible transport services.⁶² A UNICEF study found that when 700,000 squatters were resettled in the periphery of Delhi, male employment increased by 5 per cent, while female employment fell by 27 per cent because their travel time to their old jobs increased threefold.⁶³

Unsafe water and lack of solid waste and wastewater management result in illnesses requiring care that limit women's economic activities and drain family income. This is especially true for slums and informal settlements within urban areas. Research based on India's National Family Health Survey (2005-06) in the context of eight large Indian cities (Chennai, Delhi, Hyderabad, Indore, Meerut, Kolkata, Mumbai and Nagpur) revealed that slum dwellers suffer a disproportionate risk of communicable illnesses such as tuberculosis. The prevalence of malnutrition in India and Bangladesh is more than double in slums than in non-slum areas, at 54 per cent versus 21 per cent and 51.4 per cent versus 24 per cent respectively.⁶⁴ There is also evidence that behaviour related health issues such as smoking are more prevalent in slums. For example, in Bangladesh smoking cigarettes and *bidis* (hand-rolled cigarettes which have higher concentrations of tar and nicotine) is more widespread in slums. This has devastating effects for people living in poverty in terms of diverting income from food expenditure and exacerbating the risks of respiratory diseases commonly associated with overcrowded and poorly ventilated dwellings.

The poor women, in essence, live disenfranchised from the formal system—legally, economically and socially—leaving

them open to constant threat and harassment. A 2011 study on slum upgrading and safety in Bangladesh reveals that crimes against women are less visible but more deeply entrenched than other serious threats to slum-dwellers.⁶⁵ A separate study found that the prevalence of spousal abuse is higher in Bangladeshi slums (35 per cent) than non-slums (20 per cent).⁶⁶ Given the unwillingness of women to admit abuse for fear of retribution, the numbers are likely to be higher. With little independence outside the home, women are isolated and left without formal or even informal recourse for the abuses committed against them.

Youth, poverty and inequality of opportunity

South Asia's rising urban youth population makes it imperative to address the interaction between youth and the inequality of opportunity and poverty in cities. As seen from figure 4.5, South Asia has the highest proportion of youth population compared to any other region in the world. A large part of this youth bulge is 'pulled' to urban areas in search of better livelihood opportunities. However, young people in South Asia's cities suffer disproportionately from low-quality employment with poor prospects, 'dead-end' jobs and are more likely than adults to be among the working poor.⁶⁷

About 9.8 per cent of South Asia's youth are unemployed. Young women are particularly disadvantaged in labour market access, as reflected in their low participation rates. The gender gaps are especially large in South Asia (34.1 per cent) compared to the Middle East (33.6 per cent), North Africa (27.4 per cent) and Latin America and the Caribbean (19.9 per cent).⁶⁸

Given that many of the young people in urban areas remain unemployed or informally employed, they become vulnerable to the social ills that accompany urban poverty. The urban youth in South Asia's cities may be particularly vulnerable to becoming key players in urban violence

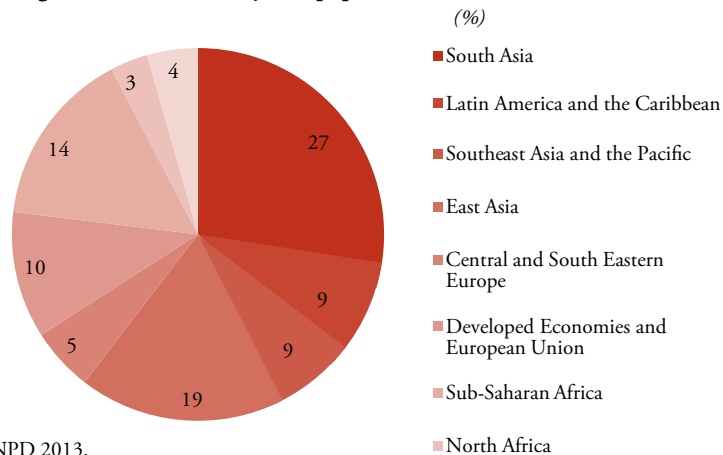
that takes place in cities. Sometimes participating in violent activities is a survival strategy for the youth, many of whom lack education or formal employment opportunities. In addition, the coexistence of the very rich and the very poor within a small geographical area is liable to generate frustrations and aggression. The inadequacy of service provision and the extreme contest for resources it creates is also likely to fuel crime and violence. When these tensions coincide with ethnicity or religion markers, the potential for communal violence rises considerably.

Urbanization, poverty and violence

Rapid urban growth is considered problematic as it strains the capacities of service provision and labour market absorption, thereby increasing the contest for space and resources. Such a contest for access to urban infrastructure and service provision typically excludes and leaves the 'have-nots' behind, relegating many to slums and informal settlements.

Although there is no causal relationship between poverty and urban violence in South Asia, there is certainly a confluence of the two phenomena in its major cities. Poverty becomes an important factor when it is coupled with other triggers, such as a lack of opportunity, inequality, exclusion, the availability of drugs and firearms, a breakdown in various forms

Figure 4.5 Regional distribution of youth population, 2012



Source: UNPD 2013.

of social capital and so on. Understanding the dynamics between poverty, marginalization and crime is complex. Urban residents living without access to basic urban services are more vulnerable to being affected by, and more importantly, contributing to urban violence.

In a study on the state of Maharashtra in India, civil violence in Maharashtra was found deeply rooted in processes of urban vulnerability. Specifically, the study established that violence-prone areas in the state were also the areas consisting mostly of slums. Among violence-prone areas, those where the lack of services, employment opportunities and social capital are most severe are also those most acutely affected by violence; and within these areas, it is the most economically, socially and spatially vulnerable households that suffer from bouts of civil violence.⁶⁹

The continued illegality and insecurity of a growing proportion of urban inhabitants in South Asia's cities means that infrastructure and services important for urban safety, such as policing, are absent from a number of communities. Because of absence of mainstream providers of essential services in a large part of the city, parallel structures of authority and security, especially gangs and various types of mafias, such as *mastaans* in Dhaka's informal settlements are emerging (see box 4.5). This further reinforces marginality and poverty.

Conclusion: Building inclusive and sustainable cities for human development in South Asia

The process of urbanization in South Asia has been rapid, unplanned and chaotic so far. The question of urban planning has been largely ignored until recently, when the very sustainability and liveability of cities has come under pressure because of urban sprawl, infrastructural decay, spread of informal housing and the myriad ills that burgeon out of urban poverty. South Asia's policy makers have now started to grapple with the question of how best to manage this inevitable phenomenon of urbanization—how best to harness its potential to bring about growth for the city while ensuring that the benefits of this growth are shared equally; how to plan urbanization so that the majority of urban residents are not excluded from the dream of better opportunity and public services like education and health that attracted them to cities in the first place; how to ensure that the dynamics of urban growth do not exacerbate the urban divide; and how to make our cities conducive to enhancing human capabilities in the form of better education, health, employment and decent housing to achieve better human development indicators for the region's urban residents.

As highlighted in the chapter, a large part of urban socioeconomic disparity

Box 4.5 Local gang lords as service providers in Dhaka city

The absence of government provision of key public services has fostered the growing presence of local 'gang lords' as service providers. Mumbai and Dhaka are well known for this. In Dhaka they are known as *mastaans* and they play the role of providing services at a cost. Most urban poor and residents of slums are left with little choice but to 'purchase' basic services from these gang lords. The *mastaans* are often the only providers of services in many slums, even NGOs that try to provide ser-

vices need to maintain links with them. They also maintain connections with the police and politicians and are thus able to maintain their stronghold.

Traditionally, these gang lords have played a key role in contributing to violence and crime as the results of a survey conducted for four large slums suggest. The survey reported that 93 per cent of respondents had been affected by crime and violence over the last 12 months with 33 different types of crime identified by

the respondents. Among the most commonly reported crimes are 'toll collection, *mastaan*-induced violence, drug and alcohol business, land grabbing, gambling, violence against women and children, illegal arms business, arson in slums, murder and kidnapping and domestic violence'. All four slums that were surveyed reported *mastaan*-related violence and political violence to be high in their vicinities.

Source: UN-ESCAP and UN-Habitat 2009.

is driven by infrastructural challenges—the gaps between ‘haves’ and ‘have-nots’ in access to affordable transport, housing, education, health, water and sanitation. These disparities in access to key urban services determine the degree of opportunity in access to the urban advantage. For instance young people living in slums without access to health and education facilities are likely to remain unemployed or informally employed and thus not being able to experience the economic opportunities that a city offers.

Many of South Asia’s cities are already experiencing the challenges of unsustainable transportation, water scarcity, waste management, proliferation of slums and rising urban poverty levels. As illustrated in the chapter, there is a complex interplay of these forces that exacerbate the challenges that today’s cities face. Responding to these challenges will be crucial if South Asia wants to develop truly sustainable cities. There is a need for urban policy to address the issue of transport congestion through BRT systems that have emerged as providing effective ways of low carbon transport within the existing urban transport infrastructure. The positive experience of implementing BRT systems in Lahore and Ahmedabad recently have made other municipalities and urban centres in the region look towards such systems as an efficient way to increase density within close proximity to commercial areas, thus reducing travel times and the need for extensive transport.

Expanding access to water, sanitation and improving solid waste management is an acute challenge for urban policy makers in the region, given that a vast majority of its urban population lives in slums, which by definition are characterized by absence of these services. Some countries such as India and Bangladesh are already using innovative approaches to tackle the problem of service delivery in slums. Conveying information about water availability to slum dwellers via text messages and using slum dwellers as waste collectors are steps in the right direction.

However, these approaches need to be formalized and scaled up with partnerships of non-governmental organizations (NGOs) and relevant public sector utilities in cities.

Urban poverty often stands neglected in policy-making in the region, given the historical levels of rural poverty. This bias persists even today in many countries, which look at urban poverty as a marginal issue. However, interest in urban poverty issues is increasing as a result of efforts to see poverty beyond income, including the issues of risks and vulnerability, structural inequalities, governance dimensions and the inter-generational transmission of poverty.

To tackle the social ills associated with rapid urban poverty, it is necessary to extend municipal services to slums. There are some developments in the region in this regard. For instance in India, the National Urban Housing and Habitat Policy (NUHHP) by the Indian government in 2007 and subsequent launching of the national-level housing programme called Rajiv Awas Yojana (RAY) are significant milestones. RAY seeks to establish a “slum-free India with inclusive and equitable cities in which every citizen has access to basic civic and social services and decent shelter”⁷⁰ and rests on bringing all existing slums within the formal system. However, most of these urban renewal policies are far from comprehensive. None of the housing policies targeted at slum areas and slum dwellers fully recognize the need to provide security nor do they address the linkages between various forms of vulnerabilities and physical insecurity. As discussed earlier, physical vulnerabilities and lack of security in slums may become the leading cause for urban violence and hence should be endogenized in policy responses. It is also necessary to improve access to education and health opportunities especially for young urban migrants and women, who are found to be more vulnerable to deprivations presented by the urban environment. Efforts at recognizing informal economic activities will provide necessary protection to the urban poor earning their

Physical vulnerabilities and lack of security in slums may become the leading cause for urban violence

living off the informal sector.

Most urban policies in the region have been restricted in their approach, aiming to provide merely more infrastructure, not sustainable infrastructure for bridging the urban divide. It is not simply a question of building more roads to ease the traffic congestion or installing more pumps

to increase water supply. The traditional approach to urban infrastructure cannot sustain the present, let alone the future demands of emerging cities in South Asia. There is a need to rethink the traditional approach of designing and populating cities in a manner that is equal, sustainable and capability-enhancing for all residents.

Impact of Urbanization on the Environment

The lure of cities for jobs, education and health facilities and better living conditions than rural areas is strong for people to crowd into cities, but environmental costs of this large increase in the urban population are enormous on many counts. Some facts:

- About one-third of South Asia's population now lives in cities, a share likely to reach over one-half by 2050. Between 2010 and 2050, 691 million new urban residents will be added to the region, accounting for more than one-quarter (26 per cent) of the increase in the world's urban population.
- The share of population living in large cities of South Asia, with a population of more than one million, will increase from 42 to 48 per cent between 2010 and 2025.¹
- The number of such cities will increase from 55 to 81 during this time. Such transformation is expected to create a number of economic, social and environmental challenges.
- The world's cities occupy just 2 per cent of the earth's land, but account for 50 per cent of global population, 80 per cent of both global gross domestic product (GDP) and global energy consumption and 75 per cent of global carbon emissions.²

Environmental threats in the form of air and water pollution and inefficiently managed solid waste along with global warming have far-reaching implications for urban residents in South Asia. These problems reduce people's capabilities by affecting their health and other dimensions

of well-being.

Rapid and mostly unplanned urbanization in South Asia is also putting pressure on water, sanitation, the solid waste system, road infrastructure and education and health services. In South Asian cities, people remain vulnerable to haphazard urban planning and inadequate infrastructure for housing, water, sanitation and electricity. Out of 498 million people living in the cities of South Asia, more than one-third lives in slum areas (see table 5.1).³ Overuse of existing facilities is threatening the quality of air, availability of safe water, capacity of the sanitation system and solid waste management, with devastating consequences for the urban environment and people. It is also creating challenges to inadequate and unequal access to environmental services across urban populations, particularly the urban poor (see chapter 4). These problems are being compounded by climate change.

The challenge for South Asian cities is to foster economic development while reducing environmental damage and greenhouse gas (GHG) emissions. This should entail an approach that integrates environmental sustainability with equity. For this, the region needs to increase investments to address climate change threats, to promote low-carbon energy and improve access to water, sanitation and solid waste services.

This chapter assesses the impact of urbanization on the environment in terms of increased air pollution because of increased production of GHGs, reduced availability of water and sanitation services because of high population density and poor infrastructure.

Environmental threats have far-reaching implications for urban residents in South Asia

State of the environment in South Asian cities

First, we start with some facts (see table 5.1):

Environmental trends over recent decades show a deteriorating situation in South Asian cities. This trend is attributed to rapid and uncontrolled expansion of cities. Local and national level environmental threats include air pollution and water pollution and inefficient solid waste management. The prosperity and growth of cities in the region are increasing GHG emissions, resulting in an increase in global warming (see box 5.1).

- Air quality is deteriorating significantly in South Asian cities.
- Both surface and groundwater have become polluted mainly due to the discharge of wastewater.
- Only a small proportion of solid waste is collected in most cities of South Asia, negatively impacting the environment.
- These problems are becoming worse with climate change.

Air pollution

In South Asia, the rising level of urbanization, unplanned urban development and higher levels of consumption are causing an increase in the demand for transportation, fuel and infrastructure. This is increasing air pollution and GHG emissions in cities, with significant implications for people's well-being.

Air quality is major concern for some cities in South Asia. For example, in major cities of India, Pakistan, Bangladesh and Sri Lanka the level of particulate matter (PM₁₀)⁴, which is strongly linked with respiratory and cardio-vascular illnesses and deaths has exceeded the World Health Organization (WHO) guidelines (see figure 5.1).⁵ The quality of air is deteriorating not only in major cities of the region, but also in small and medium sized cities. In India, more than half of the cities are found to be critically polluted.⁶

Air pollution has increased traffic congestion and accidents and reduced visibility. The impacts include time losses, lower visibility and traffic accidents.

- In India, a 2010 study for 87 cities

Table 5.1 State of urban population and infrastructure in South Asia

	India	Pakistan	Bangladesh	Afghanistan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia
Percentage of population living in urban areas									
2010	30.9	35.9	27.9	23.2	16.7	15.0	34.8	40.0	30.6
2050	51.7	56.0	52.2	43.4	36.7	30.3	57.3	65.6	51.5
Percentage of urban population living in slum areas									
2009	29.4	46.6	61.6	...	58.1	...	...	...	34.9
Improved drinking water coverage, urban (%)									
2010	96	96	85	85	91	99	100	100	95
Improved sanitation coverage, urban (%)									
2011	60	72	55	46	50	83	74	97	61
Proportion of urban population with durable housing									
2006	81	87	46	...	72	...	...	...	78
Proportion of urban population with sufficient living area									
2006	63	46	68	...	75	...	...	...	62

Source: MHHDC 2014 *Statistical Profile of Urbanization in South Asia*.

Box 5.1 Greenhouse gas (GHG) emissions in South Asia

Comprehensive data for the share of urban areas in total GHG emissions in South Asia is not available. However, globally cities occupy only two per cent of land and yet contribute more than two-thirds of GHG emissions and consume three-fourths of energy. Although South Asia's share of global urban GHG emissions is lower, this is going to increase in the future due to the rising urban population, growing economic size, increasing use of energy and increased motor vehicle use. The main sources of GHG emissions in South Asian cities are energy use, transportation, buildings and waste generation.

Energy use: Cities are the main consumer of energy. Globally, the share of energy from coal, oil and natural gas is expected to increase from 67 per cent in 2005 to 73 per cent in 2025 which is one of the main sources of carbon emissions. Although no precise estimates are available for cities, the increasing use of energy in urban areas for heating, cooling, cooking, transportation and industrial production indicates rising

emissions. Some South Asian cities such as Nagpur in India have started to use efficient sources of energy. In 2008, India launched its Solar Cities programme to make Nagpur a model solar city.

Transportation: About one-third of urban emissions in the world come from transportation which includes private and public transportation. People in urban areas are heavily reliant on transportation including private cars, motor cycles, road freight and public vehicles which are emissions-intensive. Recently, a number of countries including India, Pakistan, Nepal and Bangladesh have used options for sustainable urban transportation. The examples include: electric three wheelers in Kathmandu, Nepal; buses with a passive solar design in Ahmedabad, India; and recycling train energy for carbon credits in New Delhi, India.

Buildings: Commercial and residential buildings are another source of GHG emissions in the region. They use energy

for heating and cooling and running appliances and offices. According to the International Energy Agency, energy efficiency standards in buildings can reduce energy use by about 11 per cent by 2030. Some countries are using green building options such as construction of green homes in Pune, India.

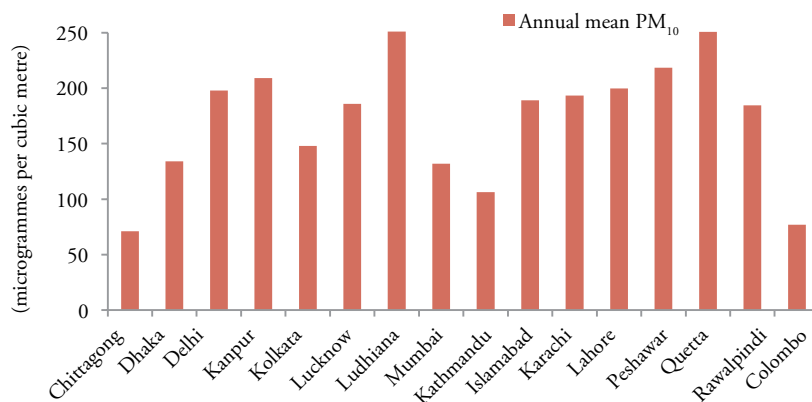
Waste generation: Waste generation accounts for seven per cent of GHG emissions in South Asia. An increase in urbanization and incomes is resulting in an increase in waste generation in cities. The waste is either burned or dumped. In both cases, it causes an increase in GHG emissions in the form of carbon dioxide (CO₂) and methane. Mitigation options require better waste management. Some efforts are already being made in South Asia. For instance, Waste Concern, an NGO in Bangladesh is working to reduce emissions by composting solid waste instead of burning it and selling it to fertilizer companies.

Sources: UNDP-APRC 2012, UN-Habitat 2010c, Dodman 2009 and MHHDC staff compilations.

estimated that the expected average journey speeds on major corridors in many cities would fall from 17-26 kilometres per hour (km/h) to 6-8 km/h in the next two decades.⁷ Similarly, in Dhaka the average speed of vehicles could come down from 14 km/h to 4 km/h by 2025.⁸

- Air pollution has also reduced visibility in cities. In Kathmandu Valley, the Himalayas which could be seen for 117 days out of 120 winter days 30 years back were visible for only 22 days during the winter in 1998.⁹
- South Asia accounts for about a fifth of road accidents. In the Punjab province of Pakistan, an increase in the number of vehicles along with an increased number of traffic problems has made traveling in the cities risky, as indicated by a total of 5,162 accidents

Figure 5.1 Concentration of particulate matter (PM₁₀) in major cities of South Asia*



Notes: *: The standard for PM₁₀ is 50 microgrammes per cubic metre. **: For Chittagong and Dhaka, data is for the year 2007. For Indian cities and Colombo, data is for the year 2008. For cities in Pakistan, data is for the year 2003-04. For Kathmandu, data is for the year 2005. Source: WHO 2013.

in 2011, resulting in 3,038 deaths and 5,325 injured persons.¹⁰

Sources of air pollution

Air pollution originates from stationary sources, which include use of fossil fuels in industries and thermal power plants; and mobile sources, mainly from vehicles.¹¹ It is partially the result of industrial and manufacturing activities and mostly relates to growth in the number of vehicles. For instance, vehicular pollution contributes more than four-fifths of total pollution in Chennai, about two-thirds in Delhi, Bangalore and Dhaka and more than half in Mumbai and Pune.¹²

The main factors responsible for transport related pollution are a large number of vehicles, low quality of fuel, poor emission control standards and inadequate public transportation systems.

- There has been a dramatic expansion in the number of vehicles in South Asia. India accounts for about four-fifths of the region's motor vehicles. In India, personal vehicles increased by 14 million between 1981 and 1991, 28 million between 1991 and 2001 and 16 million between 2001 and 2004.¹³ Between 1990 and 1997, the number of light duty vehicles increased by 14 and 6 per cent annually in Nepal and Pakistan respectively.¹⁴ Moreover, vehicles are concentrated in few cities of the region.
- A large number of vehicles use low quality fuel such as diesel. This has led to an increase in air pollution. In Pakistan, out of 6.17 million registered vehicles, 2 million run on compressed natural gas (CNG). The country's fuel consumption is growing at an annual rate of 6 per cent, almost half of which is consumed by the transport sector.¹⁵ About 65 per cent of Kolkata's total vehicles and 99 per cent of commercial vehicles run on diesel.¹⁶ Motorcycles and rickshaws, due to their two-stroke engines, are extremely inefficient in burning fuel and contribute most to air pollution.
- Vehicles are subject to poor emission

control standards. For instance, in Islamabad, about 43.5 per cent of total tested vehicles have been found non-compliant with National Environmental Quality Standards.¹⁷ Similarly, in Dhaka, out of 562,851 registered vehicles, 80,615 have no fitness certificates, while another 13,778 trucks, buses and mini-buses are older than 10 years.¹⁸

- The increase in private transport in the region is attributed to insufficient public transport facilities. Very few people use the latter mode of transport. For instance in Dhaka, the share of public transport is 25 per cent of total person trips compared to 74 per cent in Hong Kong.

Water pollution

Although access to safe water and improved sanitation in the cities of South Asia has improved, people are facing problems in water quality. Surface water has become polluted mainly due to domestic sewage, industrial effluents and solid waste. Groundwater is also facing quality problems. The use of polluted water has become a great impediment to the environment and people's health.

- In *India*, in a sanitation study conducted for 423 cities, none of the cities were found to be 'healthy and clean'.¹⁹ Inadequate discharge of wastewater has contaminated three-fourths of surface water sources of the country.²⁰ The country is also facing the problem of groundwater contamination. For instance, a study for 200 Indian cities found groundwater to be affected by geogenic contaminants including salinity, iron, fluoride and arsenic.²¹
- In *Pakistan*, majority of the population is exposed to the hazards of drinking unsafe and polluted water from both surface and groundwater sources. A national level study on the quality of water in 21 cities of the country found the presence of bacterial contamina-

The main factors responsible for transport related pollution are a large number of vehicles, low quality of fuel, poor emission control standards and inadequate public transportation systems

tion greater than 50 per cent in 17 cities and greater than 100 per cent in 4 cities.²² In Islamabad and Rawalpindi, 60 per cent of installed water filtration plants were found to contain chemical and bacterial contaminants.²³ In Multan, Bahawalpur and Lahore, higher than permissible levels of arsenic were found in wells operated by Water and Sanitation Agency (WASA).²⁴

- In *Bangladesh*, the quality of rivers flowing around Dhaka namely, Buriganga, Balu, Shitalakhya and Turag is beyond permissible limits especially in the dry season.²⁵ Moreover, high arsenic contamination found in groundwater has become a national problem.²⁶
- In the Kathmandu Valley in *Nepal*, 20 out of 57 groundwater samples tested showed bacterial contamination. Similarly, 26 out of 34 spring water samples were also found to have bacterial contamination.²⁷

Sources of water pollution

The discharge of wastewater is a major source of water pollution in South Asian cities. Sewerage systems are almost non-existent in India, Bangladesh, Nepal and Sri Lanka with a severe situation in slum areas. Most of the sewage in the region is discharged untreated into urban drains, river systems or the ocean. Many of the region's major cities do not have an extensive drainage network and rely heavily on septic tanks and latrines for waste disposal, which also create problems.²⁸

- In *India*, the discharge of untreated sewage is the single most important cause for water pollution. About one-fifth of the households do not have access to a drainage network, while two-fifths of the households are connected to open drains.²⁹ Moreover, the availability of underground sewerage is 30 and 15 per cent in notified and non-notified slums. According to India's *State of Environment Report 2009*, a large part of uncollected and

untreated water finds its way towards nearby water bodies or gets accumulated in urban areas, causing unhygienic conditions.³⁰

- In *Pakistan*, municipal sewage is a major source of surface water pollution. Out of 2 million tonnes of annually produced human excreta in urban areas, about half goes to pollute water bodies.³¹ Industrial wastewater is also increasing water pollution. For instance, in Lahore, only 3 out of 100 industries using hazardous chemicals are found to treat their wastes before discharging them into municipal sewers.³²
- In *Bangladesh*, only Dhaka has a water-borne sewerage system, however it covers only one-fifth of the population and most of it was damaged during the 2004 floods.³³ The city generates 1.3 million cubic metres of sewage per day, while sewage treatment plants can treat only 40,000 cubic metres. The remaining sewage goes to rivers.³⁴
- In *Nepal*, only the Kathmandu Valley has some sewerage facilities. However, treatment plants are not maintained and are mostly inoperative. Most of the wastewater flows are untreated, resulting in the pollution of surface water with life threatening consequences. For instance, a study shows that fish production has been completely wiped out in the 10 to 15 kilometre stretch of the Bagmati River flowing through the Kathmandu Valley.³⁵
- In *Sri Lanka*, inadequate sewerage facilities result in uncontrolled discharge of sewage into waterways and marshes. Moreover, the discharge of pollutants by factories is poorly controlled. The cities of Colombo and Hikkaduwa have sewerage network systems, however component parts are in need of repair.³⁶

Piped water is also contaminated by water leakages due to poor maintenance. These leakages may lead to water logging and can cause major health issues.

The discharge of wastewater is a major source of water pollution in South Asian cities

Only a small proportion of the generated solid waste is collected in most cities in South Asia, negatively impacting the environment

For instance, in Kathmandu, Karachi and Chennai the distribution system loses 25 to 40 per cent of clean water through leakages.³⁷ The losses are higher in Kandahar and Kabul in Afghanistan which lose 60 to 70 per cent of the water.³⁸

Inefficient solid waste management

Inadequate collection and disposal of solid waste impact the ecosystems of cities, contribute to the degradation of the environment and pose a health hazard to people living in cities.

Waste generation: High population growth and urbanization along with economic growth has increased consumption levels in cities. By 2025, one billion people are estimated to enter the global consuming class, of which three-fifths will live in 402 cities in emerging countries and 36 cities in South Asia.³⁹ They will generate about half of global GDP growth. This growth in the consuming class will lead to an increase in solid waste generation. Globally, the amount of municipal solid waste generated will increase from the current level of 1.3 billion tonnes per year to 2.2 billion tonnes per year by 2025, with developing countries accounting for much of the increase.⁴⁰

Waste collection: Only a small proportion of the generated solid waste is collected in most cities in South Asia, negatively impacting the environment. Waste collection coverage is 60 per cent in major cities of Pakistan, 50 per cent in the cities of Bangladesh, 25 to 45 per cent in the municipalities of Nepal, 60 per cent in the municipalities of India and 31 per cent in Sri Lanka.⁴¹ Waste collection services are not always evenly distributed. Collection coverage of solid waste in urban areas of South Asia varies from 90 per cent in commercial centres to less than 20 per cent in peri-urban areas.⁴² In slum areas, solid waste collection is non-existent; as such areas are not covered by municipal services, putting the poor living there at risk. Apart from municipal solid waste, cities in the region

are also facing the problems of healthcare waste, industrial solid waste and electronic waste.

Waste treatment and disposal: In the cities of South Asia, open dumping is the dominant method for the disposal of solid waste. Although governments in the region are working to develop other methods such as land filling, composting, incineration and so forth, open dumping remains the cheapest and most effective way for waste disposal. Moreover, uncollected waste is illegally dumped in open spaces, water bodies, buried, burned or deposited along the streets or roadsides. This creates a number of environmental problems in the form of water pollution, soil contamination, air pollution and GHG emissions.

- In urban areas of *India*, uncontrolled dumping of solid wastes has resulted in overflowing of landfills, surface and groundwater pollution and GHG emissions.
- A similar situation has been found in *Pakistan* where the main factors responsible for poor solid waste collection and disposal are lack of public awareness, unplanned city growth, high waste generation, lack of landfill sites and non-functioning of existing systems.⁴³ Only five per cent of households in Pakistan have access to a municipal garbage collection system.⁴⁴
- In *Sri Lanka*, solid waste is not disposed in an environmentally sustainable way. For instance, in Kandy city the dumping site is only 63 metres from the Mahaweli River.⁴⁵ Similarly, in Jaffna city two dumping sites are in low-lying areas. In Galle city, the disposal site is on the coastal belt.
- In urban areas of *Nepal*, lack of dumping sites makes solid waste disposal a common problem. Open spaces and river banks are used for dumping of solid waste. For instance, in Kathmandu Valley the collected waste is dumped informally along the riverbanks or taken to the overloaded mu-

nicipal transfer station at the confluence of the Bagmati and Bishnumati rivers.⁴⁶

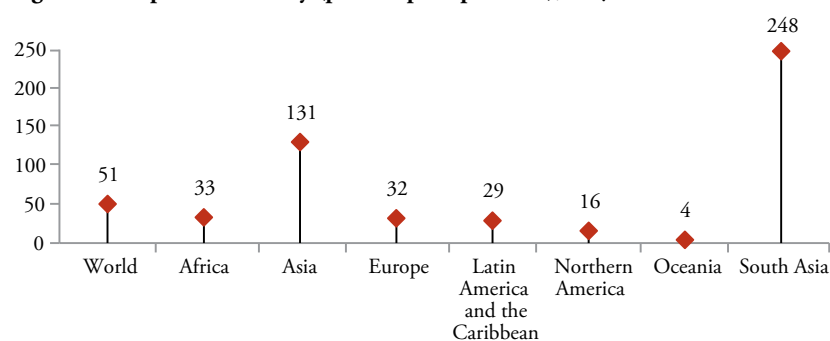
Climate change

Environmental degradation makes cities more vulnerable to the adverse impacts of climate change. South Asian cities are among the most vulnerable cities of the world due to greater exposure to natural disasters, their geographic location and high population density. Other factors are high levels of poverty and inequality, poor public service delivery and inadequate infrastructure.

Natural disasters: Urban areas in South Asia are prone to natural disasters due to dense networks of communications, public services, transport and trade. The problem is exacerbated by the fact that South Asia is the most densely populated region of the world (see figure 5.2). About 90 per cent of the 10 most populous cities of the world including three from South Asia, Delhi, Mumbai and Kolkata, are vulnerable to destructive storms, floods and earthquakes.⁴⁷ The 1988, 1992 and 2004 floods in Dhaka, 2000 and 2002 floods in Kathmandu, 2005 floods in Mumbai and the recent rains in Karachi are few examples. The situation is severe in slum areas, where people are at a higher risk of extreme weather events and have the least capacity to cope and adapt.

Cities at risk from rising sea levels: About two-fifths of South Asia's urban population lives in low lying coastal areas. A combination of factors related to climate change such as sea level rise, an increase in intensity of tropical cyclones, increased coastal flooding and strong storm surges is expected to increase the vulnerability of people living in these areas. Particularly vulnerable are those areas spreading across deltas and low coastal plains such as Dhaka, Kolkata, Mumbai, Karachi and the Maldives. For instance, a study of 136 coastal cities of the

Figure 5.2 Population density (persons per square km), 2010

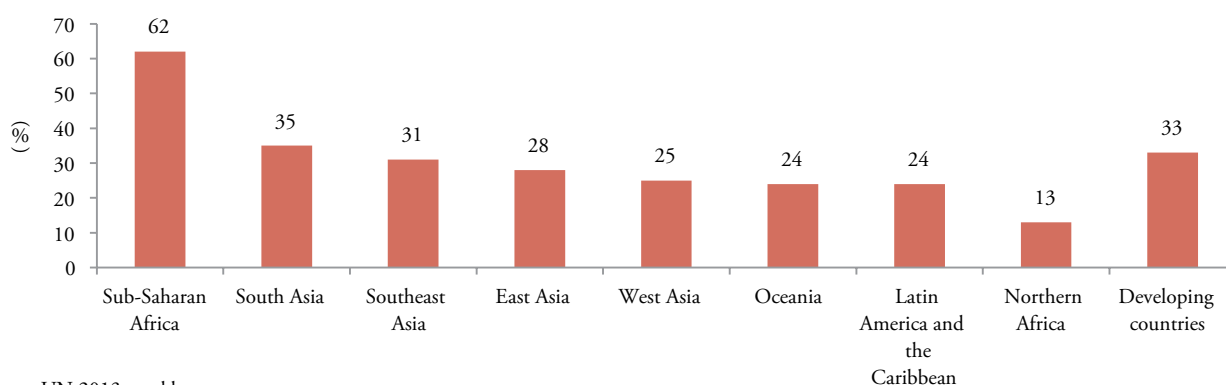


Sources: UN 2013a and b.

world showed that much of the increase in exposure of people and assets to coastal flooding will be observed in developing countries especially in South Asia. The study found that in 2070, Kolkata, Mumbai and Dhaka will be the most exposed cities of the world to coastal flooding. Between 2005 and 2070, the estimated exposure of economic assets is expected to increase from US\$46 billion to US\$1,598 billion in Mumbai, and from US\$8 billion to US\$544 billion in Dhaka.⁴⁸

Urban poor and slum dwellers: The urban poor in South Asia are particularly vulnerable to climate change. The poor live in vulnerable locations such as in flood prone areas or mountainous slopes. They are the least-informed, least-empowered and least-mobile group in the face of climate hazards. The impact of climate change increases their vulnerability in terms of health, access to food and income earning capacity. The percentage of the urban population living in such areas is the second highest in South Asia, after Sub-Saharan Africa (see figure 5.3). The number of urban residents living in such areas in South Asia increased from 160.3 million in 1990 to 165.3 million in 2010.⁴⁹ These areas lack access to safe water, improved sanitation, secure tenure, proper shelter, electricity and other services. As a result, they are more prone to natural disasters compared to planned cities as can be seen in the slums of Dhaka where about three-fifths of urban residents live.

Figure 5.3 Proportion of urban population living in slum areas, 2012



Sources: UN 2013a and b.

- In *Sri Lanka*, a significant relationship has been found between the proportion of population living below the poverty line and the number of houses damaged due to floods.⁵⁰
- In Tamil Nadu in *India*, the mortality rate in areas with manifestations of extensive flood risk was higher in areas with vulnerable housing. The poor were more likely to suffer housing damage because their houses were more vulnerable or situated in more exposed locations. The mortality rate amongst the socially and economically excluded scheduled castes was also higher in blocks with a high proportion of vulnerable housing.⁵¹
- In *Nepal*, areas affected by landslides tend to have higher poverty and mortality rates.⁵²

Environmental threats to people's well-being

Environmental degradation in the form of air and water pollution, inefficient solid waste management and climate change affects people's capabilities and well-being by impacting their health. It also impacts other dimensions of human well-being such as their livelihoods, infrastructure, migration patterns and access to public services.

Impact on health

Urban environmental threats affect people's health through impacts on the social and

physical environment. The disease burden arising from air pollution, dirty water and poor sanitation is disproportionately higher for children, women, the elderly and the poor. Climate change threatens to worsen these disparities through the spread of water, food and vector borne diseases such as dengue, malaria, diarrhoea and cholera.

Air pollution

Long-term exposure to outdoor air pollution causes pneumonia, tuberculosis and other respiratory infections, immune system damage and carbon monoxide poisoning which account for the bulk of deaths, predominantly among children under-five.

Overall, in the cities of South Asia, outdoor air pollution caused 228,931 deaths in 2008 with 13,447 deaths among children under-five. Moreover, in 2004 it caused a loss of 1,795,089 thousand disability-adjusted life years (DALYs) in the region with 264,312 thousand DALYs among children under-five. The highest number of deaths and loss of DALYs was found in India followed by Pakistan. However, in terms of deaths and loss of DALYs per 100,000 people, Pakistan has the worst record (see table 5.2).

Children are especially vulnerable to urban air pollution. They suffer from the effects of air pollution, including respiratory infections, asthma and lead poisoning. For instance, in 2010 respiratory symptoms were found among 32 per cent of children in Delhi, in contrast to only 18.2 per cent

Table 5.2 Outdoor air pollution attributable deaths and disability adjusted life years (DALYs) in South Asia

	Outdoor air pollution attributable, overall				Outdoor air pollution attributable, under-five children			
	Deaths (2008)		DALYs (2004)		Deaths (2008)		DALYs (2004)	
	Total	Per 100,000 capita	Total (000)	Per 100,000 capita	Total	Per 100,000 capita	Total (000)	Per 100,000 capita
Afghanistan	3,302	12	13,807	58	1,028	21	6,091	138
Bangladesh	10,144	6	112,353	74	304	2	21,301	121
Bhutan	1	0	0	0	0	0	0	0
India	168,601	14	1,314,717	118	6,905	5	148,385	116
Maldives	26	8	170	59	0	1	11	42
Nepal	675	2	9,893	37	24	1	2,129	58
Pakistan	45,300	25	335,712	207	5,183	22	86,328	383
Sri Lanka	882	4	8,437	44	3	0	67	4
South Asia	228,931	...	1,795,089	...	13,447	...	264,312	...

Source: WHO 2013.

among rural children.⁵³ Besides direct health effects of pollution, vehicular traffic also poses a physical threat to children by a lack of safe play spaces, sidewalks and crossings. The World Health Organization (WHO) estimates that road traffic injuries account for 1.3 million deaths annually, becoming the leading single cause of death worldwide among people aged 15-29, and the second for those aged 5-14.⁵⁴

The economic cost of air pollution related health problems can be very high. In 2004, in 50 cities of India, the annual economic cost of damage to public health from air pollution was US\$3 billion.⁵⁵ Similarly, in Dhaka, the economic costs associated with poor air quality have been estimated to be US\$500 million per year.⁵⁶

Dirty water and poor sanitation

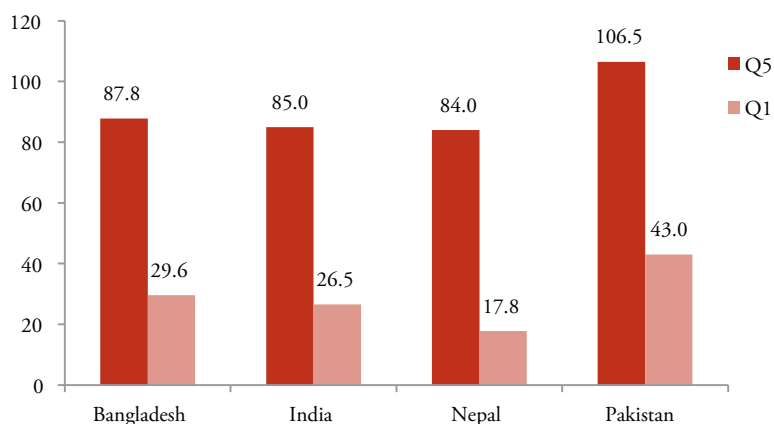
Lack of access to proper sanitation and safe water is a serious health risk. It affects human health directly with negative implications for self-respect and physical safety especially for women and girls. Moreover, it is responsible for a large percentage of diseases and a significant proportion of mortality among people, especially the poor, children and women. The main diseases caused by polluted water are diarrhoea, trachoma, intestinal worms, hepatitis, dysentery, cholera and pneumonia. In 2004, in South Asia, 1,077,000 people died and 40,692,000 DALYs were lost from water,

sanitation and hygiene-related diseases, accounting for 8 per cent of total deaths and 10 per cent of total DALYs.⁵⁷

Exposure to water and sanitation related diseases is higher in urban areas due to densely populated living conditions. For instance, in Kathmandu about 17 per cent of all deaths are attributable to water-borne diseases.⁵⁸ Moreover, in many high density urban areas, access to latrines does not significantly reduce the risk of diseases due to their unhealthy conditions. For instance, in Pakistan a study shows no difference in the frequency of diarrhoeal episodes between households with latrines and without latrines.⁵⁹

The problem is more serious among the poor. In South Asia, the child mortality rate is about 3 to 5 times higher among the poorest households compared to the richest households (see figure 5.4). Majority of the poor live in slum areas and are not served with piped water and access to improved sanitation facilities. For instance, in slum areas of Mumbai, 170 persons depend on each public latrine and one-third of the 35,000 latrines in these areas of the city are out of service.⁶⁰ Similarly in slum areas of Bangladesh, 30 per cent of the households suffer from acute water shortage, while only 8.5 per cent of the households use proper sanitation facilities.⁶¹ This makes them vulnerable to water and sanitation related diseases.

Figure 5.4 Under-five mortality by urban wealth quintile in South Asia, 2005-07*



Notes: *: Data refer to most recent year available. **: Q1 is the richest income quintile while Q5 is the poorest income quintile.

Source: WHO 2013.

Health impact of poor solid waste management

Uncollected municipal solid waste has direct impacts on health and the natural environment. It can clog storm surges, cause flooding, result in garbage heaps and provide breeding and feeding grounds for mosquitoes, flies and rodents. Collectively these can cause diarrhoea, parasitic infections and injuries. Occasional flooding and the presence of standing pools of water can lead to increased incidence of malaria and other mosquito-related diseases, especially during the rainy seasons.

Children are more vulnerable to solid waste related diseases. They often play outside and may suffer from uncollected waste. Also, their skins are more sensitive and they breathe at a faster rate than adults, making them vulnerable to airborne hazards, chemical absorption and burns. Globally, the rates of diarrhoea and acute respiratory infections are found to be higher for children living in households where solid waste is dumped, or burned in the yard, compared to households in the same cities who receive regular solid waste collection services.

The piles of garbage that clog street drains contribute to floods during the rainy season, putting at risk the health of people living in surrounding areas. For instance in

Surat city of India in 2004, floods resulted in an outbreak of a plague-like disease, affecting 1,000 people and killing 56 individuals.⁶² The city incurred a daily loss of INR516 million and a total loss of INR12 billion during the plague period. A similar situation has been found in Dhaka. Seventeen out of 43 canals around the city have been totally filled with waste.⁶³ This has exacerbated the effect of periodic flooding in the city.

Impact of climate change on health

Climate change is one of the most serious threats to public health in South Asian cities. It can increase the disease burden through its impact on access to water and sanitation, air quality, food security and living conditions. The threats range from increased risks from extreme weather events to salinization of land and water from rising sea levels and the changing dynamics of infectious diseases due to higher temperatures. The impact is the greatest for the poor living in slum areas.

The direct health impacts include mortality and injuries due to climate-related disasters such as droughts, floods, storms, cyclones and heat waves. Children, the elderly and communities living in poverty are among the most vulnerable. For instance in Ahmedabad in India, 51 persons died of sunstroke in May 2010, when the mercury level rose to 46.5°C.⁶⁴

Climate change in the form of changes in temperature and precipitation can also increase water, food and vector borne diseases such as dengue, malaria, diarrhoea and cholera. Moreover, the impact on food security in rural areas will also have far reaching impacts on nutrition, as urban residents spend about three-fifths of their incomes on food.

South Asian countries have recognized the need to protect health from climate-related risks through collaborative action on managing disaster risk, ensuring access to safe and adequate water and food and strengthening preparedness, surveillance and response capacities needed for

managing climate-sensitive diseases (see box 5.2).

Other adverse impacts

Besides the impact on health and the environment, climate change is also expected to impact people by affecting their livelihoods in the industrial, trade and tourism sectors.

Livelihoods and infrastructure

Climate change can impact the ability of people to sustain their livelihoods by affecting their assets and infrastructure such as buildings, roads, transportation, trade, industry, communications and so on. The impacts can be particularly severe in coastal areas and in cities near rivers and mountain areas. For instance, a higher population density and concentration of economic activity in cities such as Karachi, Lahore, Dhaka, Kathmandu, Colombo, Mumbai, Chennai, Surat, etc., makes them more vulnerable to climate change. These cities

are highly vulnerable to climate change impacts such as sealevel rise, flooding, salination of water resources, storm surges, cyclones and droughts.⁶⁵

Climate change can have a direct effect on the infrastructure of cities including buildings, roads, drainage and energy systems.⁶⁶ The livelihoods of the urban poor especially living in vulnerable areas will be most at risk. They have fewer resources to cope with the impacts of climate change. A loss of income will have devastating impacts on their food security, health and education. For instance:

- In *Bangladesh*, the Dhaka floods of 1988 inundated 85 per cent of the city and curtailed livelihoods, travel and communications for several weeks. The floods affected 14,000 institutions and 400,000 houses, at a cost of BTK4.4 billion. Also, the city remained disconnected from the outside world for two weeks due to the loss of communication networks. The floods resulted in US\$66 million losses in

Box 5.2 Health related climate change adaptation measures in South Asia

The following examples show how countries in South Asia are successfully adapting to address climate change related health hazards.

Disaster management in Bangladesh: In 1970, one of the world's most devastating cyclones claimed approximately 500,000 lives in Bangladesh and another in 1991 claimed around 140,000 lives. The government has been working to improve coastal warning systems and evacuation mechanisms and to strengthen emergency preparedness initiatives. The programme has been extended to 11 districts and 35,000 villages. A corps of 32,000 village volunteers organized into local teams has formed the backbone of the effort. They are equipped with radio communication equipment, first-aid kits, rescue equipment and protective clothing. Bangladesh now has the capacity to evacuate millions

of people from floods and cyclones. All these measures have significantly reduced damages and losses from extreme weather events. For instance, the cyclone *Sidr* of 2007 was of similar strength as the cyclone of 1991, but its death toll, 3000 lives, was much lower.

Health and emergency management training in Sri Lanka: In 2004, a graduate from the Ampara General Hospital conducted three workshops for the staff of the hospital. The course increased the participants' understanding of natural and man-made disasters, disaster management and its cycle, community participation, pre-hospital casualty management and emergency care. When the tsunami struck, the Ampara General Hospital staff were aware of their duties. A total of 1,015 patients were admitted to the hospital immediately after the tsunami. More than

4,000 patients received treatment from the outpatient department. Of these, only 17 died in the aftermath of the tsunami.

Plan for climate change-related heat waves in India: Ahmedabad is the first city in South Asia to comprehensively address the threat of climate change related heat waves. A plan has been prepared which creates immediate and longer-term actions to increase preparedness, information-sharing and response coordination to reduce the health impacts of extreme heat on vulnerable populations. The Plan will initiate an early warning system for residents, train medical and community workers to better treat heat-related illnesses, build public awareness of health risks and coordinate an inter-agency emergency response effort when heat waves hit.

Sources: GOI 2013b and WHO 2010.

the industrial sector of the city.⁶⁷

- A study of the railway network joining Mumbai and Bangalore in *India* shows that 20 per cent of major repairs are due to climate factors. Every year US\$1.1 million is spent to reduce vulnerability.⁶⁸ During the floods in Mumbai in 2005, most services were shut down for five days, including rail, road and air.⁶⁹
- In *Pakistan*, the cyclone of 1999 in Thatta and Badin districts wiped out 73 settlements. It affected 0.6 million people and killed 168 people and 11,000 cattle.⁷⁰
- In *Sri Lanka*, Colombo is highly vulnerable to flooding, and has experienced regular floods for the last three decades, affecting over 1.2 million people annually. The 2006 floods in Colombo destroyed 221 houses, damaged 1,674 houses and affected 80,128 people.⁷¹ In 2010, the city was inundated by two major floods in the months of May and November, affecting more than 300,000 people directly.

Migration

Globally, climate induced migrants are expected to increase from 50 million in 2010 to 200-250 million in 2050.⁷² In India, Pakistan and Bangladesh, more than 125 million people are expected to be displaced due to climate change by the end of this

century. These can have devastating consequences for the poor who lack adaptive capacity.⁷³

In coastal areas of South Asian cities, sea level rise along with storm surge is expected to increase migration. For instance, 50 million people in South Asia live in urban low elevation coastal zones (LECZ), that are 10 metres higher than the sea level. They account for about 13 per cent of the total urban population and about two-fifths of the population living in LECZ (see table 5.3). An expected 3-5 metre rise in the average sea level by the end of 21st century could inundate the coastal cities of the region, resulting in massive displacement of people towards interior cities which are already facing environmental challenges.

Floods and droughts in rural areas will also increase the pace of migration towards cities. According to the World Bank, in South Asia, climate change in the form of decreased precipitation is expected to result in sudden spikes of rural-urban migration and may even cause urban unrest. In India, by the end of 21st century, 8 million rural inhabitants are expected to migrate to urban areas due to climate change and globalization.⁷⁴

Urban services

Climate change may impact the availability of water, sanitation services, urban food security and electricity in South Asian cities. Climate variability may impact the hydrology of rivers and the availability of irrigation and drinking water, which may have dramatic impacts on the growth and development of cities. For instance, during the 2004 floods in Dhaka, more than two million city residents faced an acute shortage of drinking water as supplies became contaminated.⁷⁵ Climate change will have similar negative consequences for sanitation services. It will reduce access to sanitation infrastructure and services with severe consequences for the urban poor. For instance, during 1998, 2004 and 2007 floods in the slum areas of Dhaka, about

Table 5.3 Urban population at risk from sea level rise, 2000

	Urban population in low elevation coastal zones (LECZ) (000)	% of LECZ urban to total urban	% of urban in LECZ
Africa	32,390	11.5	58.2
Sub-Saharan Africa	16,845	8.7	67.6
Asia	235,258	16.4	52.3
East Asia	109,434	15.4	68.4
South Asia	50,140	12.8	37.9
Latin America and the Caribbean	24,648	7.7	73.4
Oceania	442	21.9	51.9
Developing countries	292,738	14.4	54.2

Sources: CIESIN 2007, UN-Habitat 2009 and MHHDC staff computations.

four-fifths of the residents suffered in gaining access to basic sanitation as most of the latrines were inundated by floodwaters.

As highlighted in the 2013 Report on *Human Development in South Asia*, loss of agricultural land and water supplies due to droughts, floods and storms will affect food security in rural and urban areas alike.⁷⁶ Moreover, extreme weather events will affect energy production and distribution by affecting water flows and destroying energy related infrastructure.

Strategies for ensuring sustainable development in South Asia

Sustainable human development requires the formulation of a strategy to address environmental challenges. Environmental sustainability offers a huge potential for low-carbon economic growth. It provides opportunities for employment generation, poverty alleviation, reduction in inequality and better provision of environmental services to all. However, such outcomes are not automatic. There is a need to integrate equity into policy and programme design and involve people in decision-making.

Addressing environmental challenges

South Asian cities have to improve access to efficient energy, safe water, improved sanitation and solid waste services to not only ensure environmental sustainability, but also to advance equity and human development.

Energy

Cities are the main consumers of energy. They use energy for heating and cooling of buildings, for cooking and for transportation and industrial production. In South Asia, the demand for energy is going to increase because of a rising urban population, a growing economy and increased motor vehicle use. Cities have to follow a different growth path to ensure low emission growth. Cities in the region have a great opportunity as they already have a short-

age of infrastructure and public services. Clean energy offers the potential to alleviate poverty, reduce health impacts from air pollution and mitigate energy's impact on the climate.

Equitable and sustainable development requires: a) providing cleaner energy to all, b) using energy efficiently, and c) using power resources that pollute less. *First*, cities have to provide cleaner energy to all at a scale and speed that will boost economic growth and reduce poverty now and in the future. *Second*, efficient use of energy requires the use of technologies that will cut energy use. By 2020, developing countries can reduce their energy demand by more than half by choosing more efficient motors, improving insulation in buildings and choosing lower energy consuming lighting and production technologies.⁷⁷ For example, India can reduce its energy demand by 25 per cent in 2030 by improving energy efficiency in buildings and appliances, industry, power distribution, agriculture and transportation.⁷⁸ *Third*, cities also need to produce more electricity from renewable resources such as gas, biomass, solar power, wind, hydro and geothermal. Such a strategy will also create new employment opportunities and improve people's incomes. India has planned to create 100 million jobs within 10 years in the renewable energy sector with most jobs to be created in the solar energy sector.

Cities in South Asia are already following a number of policies and initiatives for this purpose. For instance, Delhi and Dhaka have taken various actions to improve air quality such as limits on vehicular emissions, switching to cleaner fuels, phasing out old vehicles and closing and relocating industries. However, success has been limited because of ineffective controls. Cities are in danger of losing the gains as particulate pollution levels are rising again.⁷⁹ Cities in the region need to follow sustainable commuting practices, which include scaling up of public transport and rail, walking and cycling, accelerating vehicle technology and so forth.

Environmental sustainability offers a huge potential for low-carbon economic growth

Water and sanitation

Inadequate access to safe water and improved sanitation services poses a serious threat to sustainable development, human health and protection of the environment. There is a need to improve access to safe water and sanitation for all, including slum dwellers. This can improve health, increase productivity and contribute to poverty reduction. This requires an increase in public investment for water and sanitation with the objective to improve the sustainability of cities.

A number of successful initiatives in South Asia provide hope for improvement in access to water and sanitation to ensure sustainable development in cities. Some countries have experimented with various initiatives in which non-governmental organizations (NGOs) with the support of local governments and communities have provided effective water and sanitation services. In India, Water for People, an NGO, has partnered with a local

university to develop simple, locally manufactured filters to remove arsenic from the water at public wellheads. Similarly, SaniMarts in eastern Nepal and Southern India help households buy materials at affordable prices to upgrade latrines.⁸⁰ A large number of successful programmes have been initiated in slum areas of South Asian cities which can be replicated in other areas of the region (see box 5.3).

Waste recycling: Sustainable solution for solid waste

Recycling of solid waste is a sustainable solution for inefficient solid waste management. This way solid waste may become a valuable resource and a considerable proportion of it can be used for productive purposes. It can lead to technical innovations, leading to the creation of a number of specialized small and medium sized businesses with considerable potential for employment generation, especially for the poor. In Bangladesh, 800,000 of the 3.5

Box 5.3 Successful programmes to improve sustainable sanitation services in slum areas of South Asian cities

The Slum Sanitation Programme in Mumbai: The programme was initiated in slum areas of Mumbai to scale up environmentally sustainable sanitation services. An innovative partnership was adopted in which the Municipality Corporation provided the initial capital to build community toilet blocks, while community groups took full charge of operations and maintenance. Overall, 328 community toilet blocks were constructed with more than 5,100 toilet seats, benefiting over a quarter of a million slum dwellers.

Orangi Pilot Project's Low Cost Sanitation Programme in Karachi: The programme enables low income families to finance, manage and maintain sanitary latrines. It facilitates partnerships between the government and the community. The government provides main sewers and treatment plants, while communities provide funding to cover the costs of internal

components. The programme has been extended to all of Orangi town, 463 settlements in Karachi and 44 cities/towns, covering a population of more than 2 million.

Community toilets in Pune: In 1999, the Society for the Promotion of Area Resource Centres (SPARC), International along with other non-governmental organizations (NGOs) and the Pune Municipal Corporation started work on community sanitation in the slums of Pune. Implementation was based on partnerships between the municipality, NGOs and community-based organizations. The Corporation provided land, capital costs, water and electricity, while NGOs and community-based organizations (CBOs) designed, constructed and maintained the community toilets. More than 10,000 seats were constructed, benefiting at least half a million slum dwellers.

Slum Improvement Project in Dhaka:

The project was started in 1985 to address social and environmental problems affecting slum dwellers. Local authorities have made a breakthrough in providing an integrated package of basic physical, social and economic infrastructure services to the urban poor. Of all the project components, the microcredit programme has been found to be particularly successful and the most attractive. Many poor households have increased their income using this facility. The project has significantly raised levels of awareness, particularly in health and sanitation among slum dwellers, resulting in significant reductions in the incidence of numerous diseases. It has empowered poor women through community involvement, particularly through the savings and credit programme, thereby improving the overall status of women in families and communities.

Sources: World Bank 2006b, Hasan 2008, SPARC, India 2013 and UN-Habitat 2006.

million potential jobs associated with environmental sustainability are in recycling.⁸¹

Some South Asian cities are recycling solid waste. This is carried out by the informal sector. In Dhaka, 18 per cent of the waste is recycled entirely by the informal sector. Ghorahi in Nepal recycles 11 per cent of its waste, of which 9 per cent is recycled by the informal sector. In Delhi, 35 per cent of the waste is recycled, of which 27 per cent is recycled by the informal sector.⁸² These informal sector services rely entirely on the commodity value of the waste, with considerable benefits for cities.

South Asian cities need to follow an integrated solid waste management

(ISWM)⁸³ approach to address the issues of solid waste management in a sustainable way. Such an approach includes the incorporation of more environmental friendly concepts of source separation, use of the 3R (reduce, reuse and recycle) approach, legitimization of the informal sector and public-private participation. This can change solid waste from a problem to a source of growth, prosperity and employment as can be seen in box 5.4.

Addressing threats from climate change

Improving disaster preparedness is the single most important climate change adapta-

Box 5.4 Integrated solid waste management (ISWM): Some success stories from South Asian cities

Namakkal, zero garbage town: It is a small town in India's Tamil Nadu state. For the longest time, the town struggled with garbage issues so severe they became a threat to its environmental, economic and social vitality. In trying to overcome this problem, it became India's first garbage free town in 2003. This was achieved by the privatization of all solid waste management and the joint efforts of various stakeholders including waste-pickers, self-help groups, residential and industrial associations, the local municipality and NGOs. By instituting door-to-door collection with segregation at source, manufacturing of vermi-compost from organic waste and sale of recyclable material from inorganic waste, the town has done a great job of cleaning up.

Waste disposal in Ghorahi: It is a small and relatively remote municipality in Southwestern Nepal. It shows what can be achieved with very limited financial resources. It has shown that a well-managed state-of-the-art waste processing and disposal facility can be established if there is strong commitment from the municipality and active participation of key stakeholders. The municipality has very limited human and financial resources, but it managed to conduct scientific studies, identify a suitable site that was accepted

by the general public and develop a well-managed facility. This includes systems for waste sorting and recycling, sanitary landfilling, leachate collection and treatment and a buffer zone with forests, gardens and a bee farm that shields the site from surrounding areas. Key success factors included a clear vision and strong determination, which enabled them to use a small initial investment from the municipality budget to mobilize national financial support and to bring the site into operation within five years; and a strong landfill management committee involving local people and key stakeholders to ensure that the site is properly managed and monitored.

Waste collection and disposal in Bangalore and Delhi: Both cities have considerably improved their waste collection services recently, with collection rates exceeding 90 per cent. They have put in a lot of effort to come up with affordable door-to-door primary collection services, resulting in cleaner streets and increased possibilities of diverting recyclables and organic waste from disposal. Bangalore involved 70 small- and medium-sized enterprises through annual contracts. The shift from the use of community containers to a well-organized and well-coordinated door-to-door collection in most parts of Bangalore is an example of good practice, as it

has resulted in an immensely cleaner city. Similarly, Delhi has opted for a system in which the informal sector is engaged through NGOs and micro and small enterprises (MSEs) in providing door-to-door waste collection in an estimated 25 per cent of the city in all income classes. Waste pickers under NGOs are issued a uniform and an identity card and are provided a rickshaw for collection and space for segregation. Both cities have demonstrated inclusivity and cooperation with other stakeholders, and their selection of different strategies demonstrates that understanding local circumstances is essential for good practice.

Waste collection in Dhaka: Rapid growth of Dhaka throughout the 1970s and 1980s made it difficult for the city administration to cope with the growing piles of waste. In 1987, an individual, Mahbub Ahsan Khurram, decided to address the issue. He organized the residents of Kalabagan neighbourhood and established a waste collection service by tricycle vans. For a small monthly fee, the tricycle driver collected garbage from households and deposited it into the nearest community container. The neighbourhood was quickly free of garbage piles and became clean.

Sources: Archibald 2012, GOI 2009 and UN-Habitat 2010a.

Urban areas need special attention for disaster risk management to enhance the resilience of urban communities

tion measure in vulnerable cities of South Asia. Also, there is a need for innovative social protection programmes to empower the poor to reduce their vulnerability to climate change. Addressing climate change impacts on people will not only reduce disaster risk, but also contribute to a reduction in poverty and deprivation.

Equitable disaster management systems

Equitable disaster responses can reduce the impact of climate change on people in South Asian cities. One promising avenue is a community-based disaster risk reduction system.

Community involvement can be enormously empowering for poor communities. This is evident from disaster training programmes (2002-09) in 176 multi-hazard prone districts across 17 states in India.⁸⁴ The key objective was to strengthen the capacity of the local people and institutions by integrating community-based disaster preparedness into local government development plans. The programmes empowered women, families and communities in several cities. There are also other examples when communities created and utilized their own coping mechanism to deal with climate change impacts. For example, during the Mumbai Floods in 2005, slum communities, with the support of social organizations, were able to adopt ways to cope well with the risk. Similarly, in Bangladesh community-based disaster risk management is increasingly being recognized by NGOs, government agencies and international organizations and is emerging as a key response to adapt with natural disasters.

Despite such initiatives, South Asian cities are still facing a number of challenges. Urban areas need special attention for disaster risk management to enhance the resilience of urban communities. Community-based disaster risk reduction strategies should address the complexity and vulnerability of heterogeneous communities. This involves greater involvement of vulnerable groups, especially the

poor and slum residents. They should be involved in all stages of community-based disaster management from community profiling, community risk assessments, formulation of counter disaster plans, to implementation and monitoring processes, evaluation and feedback. The involvement of local governments will help issues such as lack of funding and institutionalization of community-based disaster risk reduction in national development and planning.⁸⁵

Social protection programmes

People exposed to the most severe climate-related hazards are often those least able to cope with the associated impacts due to their limited adaptive capacity. They are the urban poor living in slum areas. This requires social protection as a response to the multiple risks associated with climate change. Social protection programmes could become one of the priority sectors for adaptation in South Asia. They should be relevant to the needs of the population, particularly the poorest.

Social protection policy needs to incorporate disaster risk reduction and adaptation approaches to ensure continuation of programmes to support livelihoods and to protect the poor from climate change related impacts. Few examples are:

- *Jawaharlal Nehru National Urban Renewal Mission (JnNURM) 2005*: It includes mainly two missions: urban infrastructure and governance; and the provision of basic services to the urban poor. It ensures the provision of improved housing and water supply, sanitation, delivery of other existing universal services of the government for education, health and social security. About one-tenth of the housing cost is borne by beneficiaries belonging to scheduled castes and scheduled tribes/ other backward classes and physically handicapped groups.
- *Employment generation*: In Bangladesh, NGOs, such as Proshika and Dushtha

Shasthya Kendra, had successfully implemented microcredit programmes with members of the slum settlement community.

- *Shelter:* In Bangladesh, Nari Uddyog Kendra, Centre for Women's Initiatives, has organized rental accommodation in dormitories for female garment workers. Recently, Bangladesh Rural Advancement Committee (BRAC), in collaboration with the Government of Bangladesh has engaged in a similar project. These dormitory-style shelters provide affordable safe housing, particularly for single poor women, who otherwise have to stay in slum areas by paying one-third of their income as rent.

Conclusion

In urban areas of South Asia, environmental indicators show deteriorating trends over the last several decades, with adverse implications for human well-being. Climate change threatens to worsen the situ-

ation.

Efforts to provide housing, water, sanitation, transport, healthcare, education, disaster relief, and so on, need to be planned, managed and implemented in a balanced and integrated way. The region needs to formulate such a strategy that will address current urban environmental concerns in a way that promotes equity and human development. This should include an increase in access to efficient energy, improved water and sanitation facilities and solid waste management in an environmentally sustainable way. All these services need to be provided to every one without any discrimination.

Sustainable and inclusive cities have to be planned as an integral part of overall sustainable development strategies. National, sub-national and local governments have to take on major responsibilities with the help of local communities. Such a strategy will make South Asian cities better, more productive and more liveable.

The region needs to formulate such a strategy that will address current urban environmental concerns in a way that promotes equity and human development

Profile of a Mega-City: Karachi

South Asia's urban landscape has changed significantly with the rise and prominence of its mega-cities. The region contains five of the ten most populated cities in the world—Delhi, Mumbai, Kolkata, Dhaka and Karachi, which account for 15 per cent of its urban population. These mega-cities influence the social, political and economic forces underlying the development trajectory of respective countries in South Asia, particularly India, Bangladesh and Pakistan. The cities serve as a backbone for urban-based manufacturing and tertiary industries in addition to being major financial powerhouses or national capitals. The confluence of people, power and investment allows these mega-cities to play a dominant role in enhancing regional as well as global connectivity.

Within the mega-cities however, the unabated expansion of populations, boundaries and economic activities has led to shortages in physical and social infrastructure. Lack of proper urban planning has resulted in densification of the cities' core while pushing people into slums and squatter settlements. Highly competitive land markets have also driven the poor towards the peripheries and increased commuting distances and expenses. Without adequate and efficient transit systems, most of these cities are exposed to soaring levels of traffic congestion and environmental pollution. All of these issues tend to reinforce the pressures of urbanization.

Seen in this light, the mega-cities of South Asia are faced with two fundamental choices—either to continue their expansion by magnifying socio-spatial disparities and testing the limits of public infrastructure or to act as real game-changers in altering the dynamics of urban develop-

ment, where planning takes precedence.

In this chapter, the opportunities and challenges arising from urbanization are viewed in the context of one mega-city, Karachi. It emerged as the first mega-city of Pakistan—a country that has the highest level of urbanization (36.3 per cent in 2012) in South Asia, following the Maldives.¹ It is the capital of Sindh, the most urbanized province of Pakistan. Forty-nine per cent of the province's population lives in towns and cities, and is mostly concentrated in Karachi.² It plays a central role in Pakistan's urban demography, with one in five urban dwellers residing in this city alone.

Karachi provides an interesting insight into the dynamics of urbanization and how this process has unfolded in Pakistan. It sets the stage for understanding why the notions of ethnicity, religion and language have been so instrumental to establishing an urban identity and furthermore, how attaching this identity to the struggle for urban space has had economic, social and political ramifications.

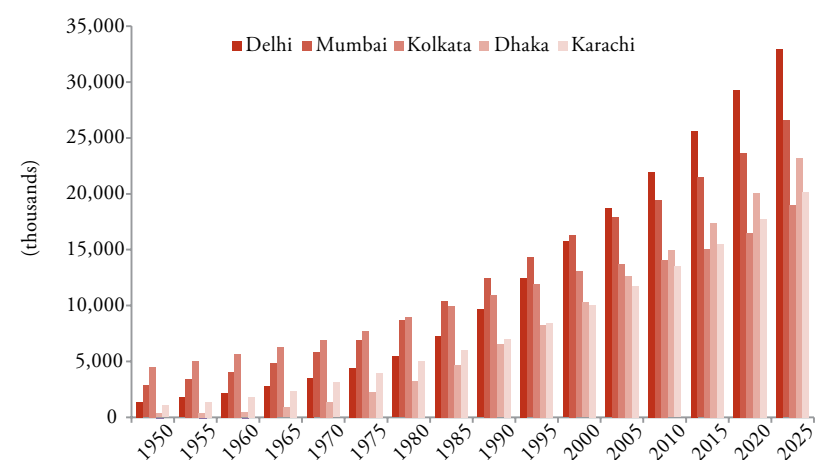
Karachi in comparison with other mega-cities of South Asia

In 1950, Kolkata and Mumbai were relatively larger cities (in terms of population) than Delhi, Karachi and Dhaka. Mumbai was the first to cross the mega-city mark in 1985, followed by Kolkata shortly after. Delhi's population size touched 10 million in 1990, whereas Dhaka and Karachi reached mega-city status by 2000 (see figure 6.1).

Dhaka hosts a majority of the urban population of Bangladesh while Karachi does the same in Pakistan (see figure

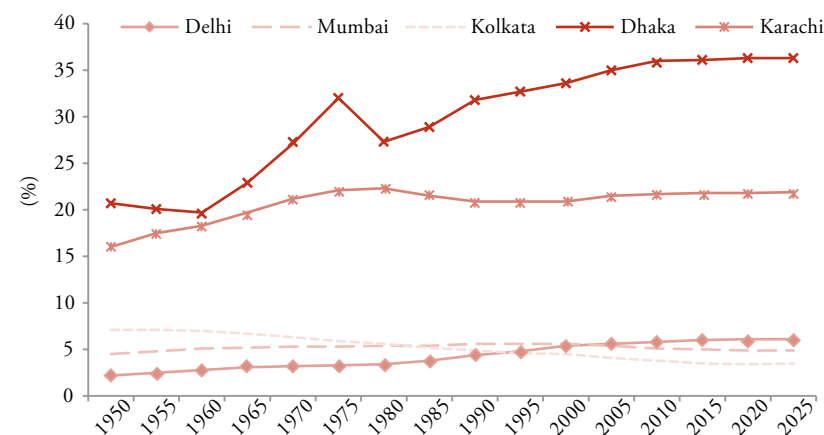
Karachi provides an interesting insight into the dynamics of urbanization and how this process has unfolded in Pakistan

Figure 6.1 Population of mega-cities in South Asia, 1950-2025



Source: UNPD 2014.

Figure 6.2 Share of the urban population of respective countries residing in each mega-city, 1950-2025



Source: UNPD 2014.

6.2). India's urban population is dispersed across many areas. It is mainly concentrated in Delhi, Mumbai and Kolkata, but is spreading increasingly to emerging mega-cities like Bangalore, Chennai and Hyderabad.

A compilation of important economic, environmental and social indicators in table 6.1 shows how South Asian mega-cities perform with respect to one another. The Global Cities Index also evaluates their performance on a relative scale (see box 6.1).

- Mumbai's economic contribution, estimated at US\$209 billion, is the highest of all South Asian mega-cities whereas Dhaka's and Karachi's, at par

at US\$78 billion, demonstrate the lowest. In spite of this, gross domestic product (GDP) growth per annum is 6.5 per cent for Dhaka and 4.1 per cent for Karachi, both indicating a higher real GDP growth rate than that of Mumbai at 2 per cent.

- With regard to energy, Karachi's consumption in per capita and per GDP terms surpasses all other South Asian mega-cities. Given Pakistan's growing energy deficit and the rise in global prices, Karachi's share of energy use calls for detailed disaggregated analysis and concrete mechanisms to foster efficiency.
- Karachi's greenhouse gas (GHG) emissions per capita and per GDP are among the highest in South Asia. Moreover, the concentration of particulate matters in the city's atmosphere is as high as in Delhi and Dhaka, two of the most polluted cities in the region.
- In terms of education (mean and expected years of schooling of the adult population), Indian mega-cities outperform their counterparts in Bangladesh and Pakistan.
- Vis-à-vis health, life expectancy in Mumbai is comparatively higher and infant mortality lower than other South Asian mega-cities.

Karachi's importance in Pakistan's economy

Economic activity in Karachi is central to Pakistan's economy, representing 20 per cent of total national output and 30 per cent of total industrial output.³ Major sectors contributing to the city's gross metropolitan product include trade and commerce; manufacturing; transport—ports, airport and shipping; real estate; construction and services.⁴

Over the years, the focus has shifted increasingly from manufacturing towards services. The combined effects of frequent power outages, reliance on informal transactions and political instability

have been detrimental for businesses in the city. Although Karachi accounts for 30 per cent of manufacturing and 40 per cent of large-scale manufacturing, the share of this sector in total metropolitan output has fallen from 37 per cent in 1985 to 18 per cent today. On the other hand, the services sector has grown steadily at 8 per cent per annum, contributing significantly to the metropolitan and national economy. The banking and financial sector and wholesale and retail trade have expanded enormously. Forty per cent of total financial activity and 50 per cent of all bank deposits are made in Karachi alone.⁵

Twenty-five per cent of national tax revenues, 40 per cent of Sindh's provincial revenues and 62 per cent of income tax collections are generated from Karachi. Ninety-five per cent of Pakistan's foreign trade also relies on the city's two ports and airport.⁶

Apart from generating economic dividends, Karachi offers numerous material advantages that facilitate urban life. It has a rich architectural heritage containing the finest buildings of the colonial era. For many years and across generations, it has been at the centre of cultural production providing artists and intellectuals the impetus to cultivate their ideas and aspirations. Through its numerous shopping malls, fashion houses, international fast food chains and media outlets, the city has achieved a new vibrancy in recent times.

However, the degree to which these advantages have been distributed across residents is worth questioning. Not

Table 6.1 Comparing economic, environmental and social indicators across South Asian mega-cities

	Delhi	Mumbai	Kolkata	Dhaka	Karachi
GDP (US\$ billions)	167	209	104	78	78
Annual GDP growth rate (%)	6.4	2.0	3.7	6.5	4.1
Total energy consumption per capita (gigajoules)	15.4	14.2	5.7	...	42.0
Total energy consumption per GDP (megajoules per US\$)	7.7	6.5	4.0	...	7.8
GHG emissions per capita (metric tonnes of carbon dioxide equivalent)	1.5	2.4	1.1	0.6	2.0
GHG emissions per GDP (thousand tonnes of carbon dioxide equivalent per US\$ billions)	258.1	363.8	170.5	151.0	436.8
PM ₁₀ concentration (microgrammes per cubic metre)	198	132	148	194	193
Education Index*	0.43	0.44	0.41	0.37	0.39
Health Index**	0.44	0.54	0.47	0.49	0.47

Notes: *The Education Index has been constructed using the mean and expected years of schooling of the adult population. ** The Health Index has been constructed using life expectancy at birth and infant mortality rates.

Source: World Bank 2013a.

only has the city's heritage been destroyed by haphazard urban development, it has also been marred by socio-spatial segregation between the rich and the poor. Cultural activities are increasingly restricted for affluent citizens who live in gated communities and fortified settlements. The scale of urban growth has invariably outpaced the absorptive capacity of the city, compromising the quality of urban life for a majority of Karachi's population.

In 2013, Karachi ranked in the bottom ten cities, 134 out of 140 cities in the Global Liveability Index produced by the Economist Intelligence Unit.⁷ The rating was based on factors such as stability,

Box 6.1 The Global Cities Index

The Chicago Council of Global Affairs has recently developed a Global Cities Index ranking 66 emerging cities in terms of business activity, human capital, information exchange, political engagement and cultural experience. Among South Asia's mega-cities, Mumbai ranks at 45 followed by Delhi at 48, Karachi at 62, Dhaka at 63 and Kolkata at 64.

The Global Cities Index also takes into account the strengths and vulnerabilities of these emerging cities. To measure strength, the Index includes factors such as GDP growth, middle class growth, improvements in infrastructure and ease of doing business. Within South Asia, Dhaka leads the way in the strength indicators, followed by Kolkata, Mumbai,

Delhi and Karachi. To measure vulnerabilities, the Index includes indicators such as increase in pollution, instability, corruption and healthcare deterioration. In this respect, Delhi emerges as the most vulnerable, followed by Dhaka, Kolkata, Mumbai and Karachi.

Source: Kearney and The Chicago Council of Global Affairs 2012.

Hailed as one of the cleanest and well-managed cities in the colonial period, why has Karachi become the epicentre of urban poverty and violence?

healthcare, education, culture, environment and infrastructure. Why has 'liveability' in Pakistan's largest city eroded to such an extent? Hailed as one of the cleanest and well-managed cities in the colonial period, why has Karachi become the epicentre of urban poverty and violence?

Part of the problem lies in Karachi's historical transition, from colonial rule to the formation of Pakistan as an independent state and part of it stems from infrastructural, socio-spatial and ecological overload.

A historical overview of Karachi's expansion

Karachi under colonial rule

Prior to being captured by the British in 1839, Karachi had been a small fishing village in the territories of the Khan of Kalat. It was home to a community of 10,000 fishermen.⁸ Towards the later half of the eighteenth century, the Talpurs governed these areas and established a seaport in Karachi.⁹ Sindh now had a port directly on the sea rather than the river, which drew the attention of the British.

In early nineteenth century, the imperial presence of the British was felt throughout India. Following the conquest of Sindh in 1843, Karachi was set up as the administrative headquarter of the province. It was strategically important to Britain's rise as a maritime colonial power. The direction of trade shifted away from traditional land routes going to the north and southeast to sea routes heading south to Asian ports and west to Europe.¹⁰

The Conqueror of Sindh and its First Governor, Sir Charles Napier tied the improvement of the Karachi harbour to the overall planning of the city. The potential benefits from the port relied on developing a system of communication that connected it with the interior of Sindh, the Punjab and the regions in the northwest.¹¹ The development of perennial irrigation schemes in Sindh and the Punjab increased

the volume of agricultural produce, which was exported through Karachi.¹²

The need for accelerating work on the harbour gained more prominence due to the mutiny in 1857. Karachi had become a strategic alternative to Kolkata for securing the British Empire. Activity increased significantly at the port, making Karachi the largest wheat exporting port city. In 1912-13 alone, 1.4 million tonnes of wheat were exported. During the First World War (1914-18), the port became the main hub for operations conducted by the British and their allies in Iraq, making it the third most important port in India.¹³

In 1854, the Sindh Railway Company was established to build the Sindh and Punjab railways, which accelerated the volume of trade. Between 1847-48 and 1863-64, the value of Karachi's trade rose from PKR1.2 million to PKR21 million. Improvements on the harbour and the railways' construction therefore, added to the progress of the city.¹⁴ By 1869, Karachi was leading in the exports of wheat and cotton in all of India.¹⁵

In 1885, the East India Tramway Company formed a tramway system in Karachi to meet the city's internal transportation needs. Through all these developments, the British were able to transform the city into a vibrant centre for trade and investment. The growing merchant class, consisting of Parsis, Hindus and Memons, was provided with the requisite environment and infrastructure to establish businesses, making the city more multi-ethnic and multi-cultural. The advent of air travel and airmail services also enhanced communication and connectivity between Karachi and the rest of India and Europe.¹⁶

When Sindh was separated from the Bombay Presidency in 1936, Karachi became the capital of the province. It served as a platform for Sindhi politicians to confront British imperialism. The struggle against colonial rule ended with the creation of the independent state of Pakistan in 1947, the national capital of which was now Karachi.¹⁷

Migration, ethnic diversity and population size

When the state of Pakistan was being formed, Karachi had a population of approximately 450,000 people. A little over 60 per cent of the people spoke Sindhi, while the rest of the population spoke in languages such as Balochi, Urdu, Hindi, Punjabi, Gujrati, Kutchi, Brahui and Marathi. The population consisted of Hindus (51 per cent), Muslims (42 per cent), Christians (3.5 per cent) and Parsis (1.1 per cent).¹⁸

After partition, the demographic profile of Karachi changed substantially. More than six hundred thousand people migrated from India and, from within Pakistan, several government servants and official staff moved to the new capital.¹⁹ Communal tensions that flared up in northern India in 1950 also added roughly 80,000 people to the city's population.²⁰ By 1951, Karachi had a population of 1.137 million people and the total figure for migrants from India and other parts of Pakistan reached 815,000. The vast majority of Hindus left the city, making the population predominantly Muslim (96 per cent). Half of the population now spoke in Urdu, while 8.6 per cent used Sindhi as their mother tongue.²¹

Rehabilitating these migrants was a formidable task for the new administration, which did not have the resources or the capacity to accommodate such a huge surplus of people. Most of them occupied abandoned properties and religious buildings left by non-Muslims in addition to squatting in open spaces available in the Cantonment area of Karachi.²² Settlements came about through such 'unorganized invasions'. To a considerable degree, the roots of ethnic strife crippling the city today can be attributed to the demographic shift that took place in the aftermath of the partition.

Post-independence, and especially in the 1960s, several Pashtuns and Punjabis migrated to Karachi in search of employment.²³ The 1971 civil war in East Pakistan

also led many non-Bengalis to move to the city. About 350,000 people came from Bangladesh between 1972 and 1978. Due to the Iranian Revolution and the Afghan War, around 200,000 refugees flocked in.²⁴ A significant number of Burmese Muslims being persecuted in Myanmar sought refuge in Karachi, as did the Sri Lankans facing hostilities in their homeland.²⁵

Successive phases of migration have resulted in a complex spatial distribution of communities and have had far-ranging consequences for the city's growth. Karachi's population has also increased considerably over time. Although the United Nations Population Division (UNPD) projects that this number is likely to surpass 20 million in 2025, preliminary results of the 2011 Population Census suggest that the population of Karachi has already crossed this figure.²⁶ Official census values have not been updated since 1998, thereby exacerbating the problems of conducting reliable assessments of urban demographic change in the city.

Urban planning in Karachi: Distorted priorities and misspent resources

In the last century, Karachi saw five master plans being initiated in the city. The urbanized area of the city was a mere 13 square kilometres in 1870. The city expanded spatially from 289 square kilometres in 1971, 349 in 1998 to 3,527 square kilometres today.²⁷ In 1923, a consulting town planner and surveyor prepared a report on the development of the city, which was followed by the Karachi Physical Plan of 1945.

In 1950, the Government of Pakistan consulted a Swedish planning firm to develop a 'Greater Karachi Plan', otherwise known as the Merz Rendall Vatten (MRV) Plan. The aim of the plan was to upgrade the existing city centre and link it to a new one. Migrants would be resettled in high-rise apartment buildings located within the city and in close proximity to their workplace. The plan also addressed the need for a proper road network in addition to a mass transit rail system to ease

Successive phases of migration have resulted in a complex spatial distribution of communities

Informal settlements, commonly known as katchi abadis, spiraled beyond state control

the city's transport problems. However, the MRV Plan was not implemented mainly because of anti-government protests that were spearheaded by students and supported by trade unions and refugees.²⁸

In the late 1950s, the government led by General Ayub Khan decided to shift migrant colonies away from Karachi. A Greek planning firm was brought in to design the 'Greater Karachi Resettlement Plan', which envisioned housing 119,000 families in new townships, to be created in Landhi-Korangi and New Karachi, about 15 to 20 miles to the east and west of the main city. Large industrial sites were also planned in close proximity to these townships in order to provide their residents with jobs. Although the initial plan was to build 45,000 one room nuclear units in the two townships, only 10,000 units were built by 1964.²⁹

This plan was sidelined for several reasons. First, locating industrial sites near these areas did not lead to the projected gains in employment. Most people moved back to squatter settlements situated within the city centre. Second, the state incurred significant financial losses, as the expenditure on housing the recipients was not offset by their level of repayment.³⁰

Nonetheless, parts of the plan were carried out and resulted in severe problems. The road network and the circular railway established under this plan shaped the pattern of growth for the city. A large number of informal settlements created by middlemen stretched along the roads connecting the city to Korangi and New Karachi. The demarcation of the city into rich and poor areas, the emergence of large-scale informal housing schemes and the rise of the land mafia can be traced back to this phase of urban planning (or lack thereof). The beginning of the city's massive transport problems can also be attributed to this period.³¹

Following this plan, Karachi underwent a major transformation, from being a relatively compact and high-density city to becoming a low-density sprawl. Informal settlements, commonly known as

katchi abadis, spiraled beyond state control. Added to this, poor transport facilities, heavy congestion and environmental pollution compelled the government to seek assistance from the United Nations (UN). The United Nations Development Programme (UNDP) supported the establishment of a semi-autonomous organization, the Karachi Master Plan Department housed within the Karachi Development Authority to prepare the Karachi Master Plan 1974-85. The plan included proposals for a feasible road network, housing, water supply, transport, warehousing, land management, mass transit and bypasses in addition to addressing environmental concerns.³²

In terms of connectivity, the Karachi Master Plan pointed out the need for a proper bus network along with bus terminals, depots and workshops. It intended to link the circular railway with an elevated or underground light rail system in addition to setting up a road network on the Lyari River. In order to divert port-related traffic away from the inner city, the northern and southern bypasses were proposed. While several parts of the plan were not carried out, creating the road network and constructing bridges on the Lyari River somewhat reduced commuters' distances and eased traffic congestion.³³

The Karachi Master Plan projected the demand for low-income housing over the ten-year plan period, estimating that by 1985, 42 per cent of new households in Karachi would belong to low-income brackets. To cater to these groups, housing projects were initiated under which 40,000 plots, including basic amenities would be developed per year. A 'metroville' programme was also launched in order to provide land, infrastructure, technical advice, credit and construction materials. Although the plots and requisite infrastructure were put in place, low-income groups found these to be unaffordable. Eventually, speculators and middle-income residents bought the plots that remained vacant for years. The absence of reasonably priced formal accommodation increased the concen-

tration of people living in *katchi abadis* and allowed informal developers to monopolize the low-income housing sector.³⁴

After this plan was aborted, the Government of Pakistan sought assistance from the UNDP to undertake another urban planning exercise for the city—the Karachi Development Plan 2000. The plan was prepared at a time when the informal sector was catering to the city's unmet civic needs.³⁵ It failed to include or consult development lobby groups that had now become major stakeholders in the informal housing market. State institutions for planning and development were also not prepared to implement the Karachi Development Plan 2000. The cost of this exercise was roughly PKR470 million (US\$16 million, 1992 dollar value), most of which was spent on preparing the plan.³⁶

Since many of these urban plans had no legal standing, it was easier for stakeholders dominating Karachi's major sectors to discard or overlook the development proposals outlined for the city. In 2007, the City District Government Karachi formulated the Karachi Strategic Development Plan 2020 and ensured its legal status through a resolution passed by the City District Council Karachi.

Urban planning has clearly been a major challenge for Karachi because land, development and municipal control are divided into several federal, provincial and local level agencies, most of which have overlapping responsibilities, conflicts of interest and poor coordination mechanisms. Multiple channels of authority and dispersed decision-making in several instances have jeopardized implementation

and overall development of the city.

Factors affecting the quality of urban life in Karachi

The city's infrastructural, socioeconomic and environmental conditions can reveal the nature and quality of urban life in Karachi. Infrastructural conditions are gauged through the state of housing, water supply, wastewater and sewage disposal and transport. Socioeconomic conditions are assessed through the state of education, health, employment, poverty and violence. Environmental conditions are evaluated on the basis of air and water pollution and waste disposal.

The state of infrastructure in Karachi

Housing

Urban settlement patterns are haphazard in Karachi with a distinct ethnic undertone. Within *katchi abadis*, people belonging to similar tribes, castes and geographic regions have settled close to one another. Urban space is distributed across concentrations of Khojas, Bohras and Memons speaking in Gujarati; Mohajirs speaking in Urdu; migrants from Khyber Pakhtunkhwa (formerly known as North West Frontier Province) speaking in Pashto and Hindko; migrants from the Punjab and Balochistan speaking in Punjabi, Siraiki and Balochi; in addition to the indigenous population speaking in Sindhi (see table 6.2).³⁷

Ethnic origin has had a clear impact on the informal housing market. For incoming cohorts from various parts of Pa-

Table 6.2 Percentage share of languages spoken in Karachi's districts
(%)

District	Urdu	Punjabi	Sindhi	Pashto	Balochi	Siraiki	Others
Karachi East	60.75	14.72	3.80	5.95	1.64	2.11	11.02
Karachi West	39.64	12.95	6.00	24.55	5.29	2.05	9.52
Karachi South	25.65	18.84	11.37	7.95	9.77	1.82	24.60
Karachi Central	73.57	8.63	1.59	4.56	0.77	2.30	8.58
Malir	15.87	17.46	25.08	20.67	8.51	2.36	10.06

Source: Javaid and Hashmi 2012.

More than land scarcity, distribution policies and procedures and access to housing finance are biased against low-income residents

kistan and South Asia, Karachi is an 'arrival city' and housing is a primary necessity of urban life. In order to tap into this market, middlemen have stepped in to provide migrants with accommodation. Until the early 1980s, most middlemen were from the Mohajir or Punjabi community. Pathans, already dominating informal transport services, were new entrants to the housing sector. Shortly after, their control over informal housing surpassed the others.³⁸

Informal settlements consolidated themselves mainly because of the government's inability to respond to the housing needs of low-income groups. Over time and through various experiments with housing schemes, it has become evident that both the state and the formal housing development sector are ill suited to provide affordable housing to the poor. The formal sector has not only failed to meet the demand for low-income housing, but has also been responsible for manipulating and distorting land prices. More than land scarcity, distribution policies and procedures and access to housing finance are biased against low-income residents.³⁹

Five to seven per cent of housing demand in Karachi stems from high-income groups, 15 to 20 per cent from middle-income groups and the bulk of it comes from low-income groups and the poor, about 75 per cent.⁴⁰ Currently, the city faces a housing shortage of 90,000 units per year. Estimates show that by 2020, the total number of households in Karachi will reach 3.8 million.⁴¹ Most of these units are likely to be filled by low-income residents.

The Karachi Strategic Development Plan 2020 seeks to address the housing shortage by promoting high-rise development, densification and in-fill within the metropolitan city in addition to augmenting occupancies in already developed but vacant housing schemes. Upgrading and regularizing *katchi abadis* are also components of this strategy. Upgrading will involve the provision of trunk infrastructure to improve housing conditions while regularization will facilitate land ti-

ling and ownership. The extent to which these measures will be adopted remains to be seen.

Water supply

Karachi receives an inflow of 30 cubic metres/per second from the Indus River and the Hub and Dumlottee reservoirs. However, supplies are insufficient to meet the growing demand for water. Domestic water use in the city is roughly 165 litres per person per day. In addition to the shortfall and poor tariff collection, lack of maintenance and management of the water supply system has resulted in distribution losses of roughly 35 per cent.⁴²

Water supply in Karachi is not only inadequate, but also irregular and inequitable. Only 60 per cent of households are linked to the main supply network. Households with piped water receive better supply than those without. In most places, water is available for four hours in a day at very low pressure. Due to the lack of alternatives, several households also have to rely on vendors that supply water through commercial tankers at exorbitant prices.

Water quality is another area of concern. Filtration plants are limited in their capacity to filter water. While 60 per cent of the water supply goes through a filtration process, the remaining is disinfected through chlorination. Neither of these methods is sufficient to purify water. Measures to prevent users from receiving contaminated water are also ineffective.⁴³

Water theft also poses a significant challenge. Suppliers that obtain illegal connections to public networks extract over 113,000 cubic metres of water a day, exacerbating current shortages and causing revenue losses of US\$15 million per year.⁴⁴

Wastewater and sewerage disposal

The city generates 472 millions of gallons of sewage per day. The sewerage system not only lacks citywide coverage, but also treatment capacity. If optimally used, existing treatment plants can treat 32 per cent of

the sewage, but only manage to treat 12 per cent. Therefore, 88 per cent of sewage in Karachi is left untreated.⁴⁵

Only the central and southern parts of Karachi and roughly 40 per cent of the population are linked to the sewerage network.⁴⁶ Most *katchi abadis* are disconnected and therefore, resort to their own mechanisms for disposal. Untreated wastewater is typically discharged into *nallahs* (natural creeks), rivers or the Arabian Sea. This is primarily because sewage flows directly into the natural drainage system. Although government authorities have tried to divert sewage to trunk sewers and treatment plants, they have failed to do so as it involves digging up the system and relaying it.⁴⁷

Poor maintenance of the sewerage network, dilapidated infrastructure and inadequate drainage are key impediments to managing wastewater. Open sewers and overflowing manholes are prevalent in many parts of the city, creating poor sanitary conditions and unhealthy physical environments. Against this backdrop, box 6.2 traces the success of the Orangi Pilot Project (OPP), which has enabled the

residents of Orangi to develop and manage their own community-driven sewerage system.

Transport

Over the years, several proposals for expanding Karachi's transport network have been incorporated into the city's master plans. A number of projects have been partially implemented or abandoned midway, magnifying the city's transport deficit.

In the early 1970s, both public sector and privately owned transport companies operated an elaborate bus network with proper depots, terminals and workshops. However, an increasing demand for public transport forced the government to allow individuals to run mini-buses along specific routes. Within a short period of time, these mini-buses overtook other forms of public transport. Faced with such competition, both public and private sector transport companies had to shut down.⁴⁸

Although proposals to establish a mass transit system in Karachi were made as early as 1952, it is one of the few megacities in the world that has not set up a

Box 6.2 The Orangi Pilot Project (OPP)

Orangi, a *katchi abadi* located in the north-western periphery of Karachi stretches over 3,200 planned and unplanned hectares. The settlement is home to an ethnically diverse community of people who work as labourers, skilled workers, artisans, shopkeepers, pedlars, clerks and white-collar employees.

The OPP was initiated by Dr. Akhtar Hameed Khan in 1980 and till date, has proved to be one of South Asia's most successful ventures for equitable and sustainable community development. In 1981, the OPP began a community-driven low-cost sanitation programme. Before this initiative, Orangi relied on a primitive form of excreta disposal. Poor drainage, waterlogged lanes and soak pits were affecting the health of the settlers and the value of their property. Most of the people

were using a bucket latrine, where the shell of a truck or car battery would be used to collect excreta. Once collected, the sweeper would remove the shell and dispose the excreta in a *nallah* (natural creek). Richer residents would dig soak pits. Wastewater would flow into the streets and soak pits would have to be emptied regularly by municipal trucks.

The OPP identified sanitation as the immediate challenge and advocated for the use of flush latrines and underground sewerage lines. Through a 'component-sharing model', the residents of Orangi joined hands to provide sanitation services to their own community. Residents would be responsible for constructing household and lane-level sanitation infrastructure while the government would be in charge of building secondary infrastructure—

mains, disposal and treatment systems. Failure to garner the support of the Karachi Development Authority compelled Dr. Khan to find an alternative where the people themselves would have to finance the sewerage system. Based on this model of self-help, the OPP was able to provide sewerage lines at one-fifth of the cost of service provided by the Karachi Municipal Corporation. More than 90 per cent of the Orangi settlement, over 108,000 households benefitted from this process. In addition to technical assistance provided by OPP and investments on external infrastructure made by the government later on, communities pooled in US\$1.76 million of their own resources to build 6,743 lane sewers.

Sources: Badshah 1996 and Hasan *et al.* 2013.

metro or monorail network.⁴⁹ The nature of public transport is neither conducive for the people using it nor does it cater to the city's needs. The current seat to passenger ratio is 1:34.⁵⁰

Private transport in the form of motorcycles and privately owned vehicles is predominantly used. While low-income groups typically rely on mini-buses and rickshaws, middle- and high-income groups prefer to use cars. With increasing rates of motorization, the city is witnessing unprecedented levels of traffic congestion and environmental pollution.

Socioeconomic conditions in Karachi

Education

According to the last census of 1998, literacy levels for both males and females are approximately the same in Karachi with an overall literacy rate of 74 per cent.⁵¹ The most recent *Pakistan Social and Living Standards Measurement Survey 2010-11* has recorded an increased literacy rate of 79 per cent with a gender parity index (calculated as the ratio of females to males) of 1.01 for youth literacy.⁵²

Net primarily school enrolment in Karachi is roughly 60 per cent while the overall primary school completion rate is 74 per cent.⁵³ The gender parity index for primary education is 1.02.⁵⁴ Secondary school enrolment is between 60 to 65 per cent, with gender parity at 1.17.⁵⁵

According to the *Annual Status of Education Report (ASER) 2012*, Karachi's educational landscape is dominated by the private sector, mainly because learn-

ing outcomes and quality of instruction in privately owned primary and secondary schools are better than the public sector. Survey statistics for ASER show that 62.8 per cent of children between 6 and 16 years of age are enrolled in private schools, whereas 28.6 per cent are enrolled in government schools (see table 6.3).⁵⁶

Institutions of higher learning owned by the public sector fare reasonably well. In order to boost employment opportunities in the services sector, universities (both public and private) are investing in specialized professional disciplines such as medicine, engineering, computer studies, informatics, telecommunications, business administration and management studies. The city's predominantly young population stands to benefit from such investments.⁵⁷

Health

Karachi has improved its basic healthcare system for women and children. The immunization rate (including the eight recommended vaccinations) for children aged 12-23 months is 91 per cent, which has allowed Karachi to achieve the 2015 Millennium Development Goal (MDG) target for immunization.⁵⁸

The proportion of births attended by skilled birth attendants is 87.8 per cent in Karachi. During their last pregnancy, 93 per cent of women in the city visited health facilities for pre-natal consultations. Such steps have helped to reduce maternal mortality (currently at 180 per 100,000 live births), especially because complicated pregnancies have been detected earlier and health risks such as anaemia and sexually transmitted diseases have been identified.⁵⁹

Karachi is also the highest ranked district in Sindh in providing women with tetanus toxoid injections (94 per cent). These injections have helped to reduce the risk of infant mortality during childbirth.⁶⁰

Both the public and the private sectors are providing healthcare facilities in Karachi. The latter however, is largely unregulated. Infrastructure for primary

Table 6.3 Educational statistics for children between 6-16 years of age, 2012

Age group	Children in different types of schools, %				Out-of-school, %	
	Govern- ment	Private	Madrasah	Others	Never enrolled	Drop-out
6-10	23.0	67.8	3.3	0.0	5.1	0.8
11-13	30.5	63.4	1.9	0.8	1.9	1.5
14-16	39.8	49.8	0.0	0.0	3.0	7.5
6-16	28.6	62.8	2.2	0.2	3.8	2.4

Source: ASER, Pakistan 2013.

healthcare, preventive services and general hospitals laid out by the public sector is not only over-stretched, but also concentrated in the city centre. Urban expansion has therefore encouraged the private sector to provide health services and spread out to residential areas.

In terms of quality, private health clinics and hospitals outweigh public sector health facilities by a large margin, but access to the former is contingent upon the ability to pay. Low-income groups cannot afford such services and therefore, tend to rely on the public sector. Some areas at the edge of the city such as North Karachi, Orangi, Landhi, Korangi and Bin Qasim are also completely cut off from the network.

Employment

Roughly 75 per cent of Karachi's working population is employed by the informal sector, mainly in businesses, workshops, manufacturing units and transport. Informal settlements, which are home to the city's low-income groups, also contain small-scale manufacturing units, mainly for garments, leather products, carpets and textiles. Components for the light engineering and electronics industries and spare parts for machineries, cars and tractors are also produced in such locations, employing a sizeable number of residents.⁶¹

Forty per cent of the people employed in Pakistan's large-scale manufacturing sector are based in Karachi.⁶² The city's industrial sector employs 71.6 per cent of Sindh's industrial labour force and provides 78 per cent of jobs for the province's formal private sector.⁶³

Poverty

Urban poverty is stark in Karachi in that 50 per cent of the total population lives below the poverty line.⁶⁴ About 8.5 per cent of the people live above the poverty line, but fall in the vulnerable category.⁶⁵ High incidences of poverty are recorded in low-income settlements, particularly in *katchi abadis*. As indicated in table 6.4, 89 per

Table 6.4 Poverty in Karachi (headcount), fiscal year 2001

Status	Overall Karachi	
	Katchi Abadi households	
Below poverty line	50.5	89
Chronic poor	9.5	54
Transitory	14.0	35
Vulnerable	8.5	11

Sources: ADB 2005 and CDGK 2007.

cent of the people living in *katchi abadis* are below the poverty line. Out of these people, 54 per cent are chronically poor while 35 per cent are transitory poor. The remaining 11 per cent are considered vulnerable.

Approximately 75 per cent of all households in Karachi belong to poor and low-income groups, whereas the remaining 25 per cent belong to middle- and high-income groups. The average monthly income of households is PKR15,000, varying significantly across the upper and lower income categories.⁶⁶

Urban poverty is a growing concern for the city's residents and administrative agencies. Typically, the urban poor consist of people that lack sufficient income, permanent jobs, tenure security and access to education, health, basic services and infrastructure. Deplorable living conditions and unhygienic environments expose the urban poor to ill health and low productivity, limiting their capacity to generate income and avail proper livelihoods. Deprived of their 'rights to the city', these underprivileged residents are stuck in a perpetual poverty trap.

Violence

In its recent history, Karachi has been flagged as a violent city both within Pakistan and abroad. Statistics on crime compiled by governments, police departments and the UN indicate that Karachi has the highest homicide rate among the world's 13 largest cities, at 12.3 per 100,000 residents.⁶⁷ Homicide is particularly common in the city's central and southern parts,

Various interest groups have used violence to secure the control of essential resources, services and infrastructure such as land, housing and transport

where political parties and criminal gangs exercise violence with impunity. Karachi also has very high rates of street crime including phone and vehicle thefts.⁶⁸

Economic advancements in the city have been curtailed by conflict along ethnic and sectarian lines, however the roots of such conflict have had more to do with dysfunctional urban development than simply ethnicity and religion. The socioeconomic division of the city into planned and unplanned areas, the competition over resources and public services and the interplay between political parties and interest groups have tainted the city to a considerable degree. The combination of arms and drugs circulating in Karachi during the Soviet occupation of Afghanistan also bred a culture of violence.⁶⁹

Various interest groups have used violence to secure the control of essential resources, services and infrastructure such as land, housing and transport. Major stakeholders in the city have also used coercive tactics to consolidate their power and influence. One such tactic is known as *bhatta*, which needs to be paid on a regular basis. Estimates show that on average, encroachers of the Saddar and Lea Market pay PKR25 million per month while the garbage recycling industry pays PKR220 million per year. Annual *bhatta* collections for land and transport amount to PKR650 million and PKR780 million respectively.⁷⁰

Ethnic tensions have brewed over time and especially with successive stages of migration. In the late 1980s, organizations were created to represent the interests of various ethnic groups and attempts to assert their identity often resulted in armed conflict. Ethnic rivalries added a new dimension to political instability in the 1990s.⁷¹ In the mid 1990s, government agencies stepped in to contain the violence. Several armed militants, political activists, law enforcement personnel and ordinary civilians were killed in the process. Social and economic activities were halted by strikes and shutdowns brought on by armed gangs.⁷²

Although urban crises of the

1980s and 1990s have largely subsided, the city has been subjected to violence time and again. Between 2003 and 2011, more than 5,000 people were exposed to brutalities in the form of terrorism, target killings and sectarian disputes.⁷³ According to the Human Rights Commission of Pakistan (HRCP), 2,284 people died in 2012 due to ethnic, sectarian and political violence; and 1,725 people died due to target killings in addition to 133 policemen and 12 paramilitary officers.⁷⁴ More than 100 kidnapping cases were also reported. As counter measures, law enforcement agencies conducted as high as 28,104 target operations the same year.⁷⁵ Apart from the loss of human lives, the toll on Karachi's economy has been substantial. Revenue losses from increased crime reached PKR33,417 billion in 2012.⁷⁶

In 2013, the federal government launched a massive operation to restore law and order. Paramilitary Rangers were deployed in the city and directed to work alongside police personnel to capture terrorists, criminals and extortionists. In order to garner support from political parties and to avoid comparison with operations conducted in the 1990s, the government set up independent committees to monitor progress (see box 6.3).

Environmental conditions in Karachi

Karachi is confronted with severe environmental challenges. Expansion of the built-up space and increased densification have intensified pressures on public infrastructure. Large-scale construction projects related to housing, commerce and transport have altered the urban landscape.

The level of air pollution in the city exceeds the limits set by the World Health Organization (WHO) and the National Environmental Quality Standards of Pakistan. Eighty-six per cent of air pollution is attributed to emissions from fuel inefficient motor vehicles, particularly diesel-run buses with high sulphur content and two-stroke engine rickshaws.⁷⁷ Traffic congestion is especially high in the inner

Box 6.3 The Citizens-Police Liaison Committee (CPLC) of Karachi

In 1989, a group of industrialists and working professionals established the Citizens-Police Liaison Committee in order to address citizens' concerns regarding urban crime. The organization is largely a citizen-driven initiative as it derives most of its finance through community support.

The Committee is permitted to oversee the operations of police stations, create awareness about citizens' rights, enhance the legal performance of the police and forge a partnership between them and ordinary citizens to 'beat crime together'.

The functions of the CPLC include (i) ensuring that First Information Reports (FIRs) are registered in a timely and proper manner; (ii) collecting statistics on the number of cases registered and solved; (iii) inspecting police records to ensure that registers are well-maintained; (iv) investigating the use of unlawful means and practices in detaining people in custody; and (v) reporting misconduct and irresponsible behaviour displayed by police officers.

Through a Central Command

Computer System, record keeping has become computerized. With satellite imaging, it is also possible to analyse the spatial distribution of crime. The information from CPLC can be easily obtained and has been very useful for the citizens of Karachi. Over the past two decades, CPLC has dealt with hundreds of cases of kidnapping and 82 per cent of these have been solved. Sixty-five per cent of stolen vehicles that were reported have also been recovered.

Source: UN-ESCAP and UN-Habitat 2009.

city as a result of port-related activities. The increasing number of motorized vehicles also poses a significant threat.

Improper waste disposal is acute in low-income settlements, particularly katchi abadis giving way to poor practices in sanitation, hygiene and public health. Streets, lanes and roadsides are regularly dumped with garbage. Only 60 per cent of solid waste is transferred to landfill sites, most of which have reached full capacity.⁷⁸

Pollutants are also present in Karachi's water supply. Pathogens found in sewage-contaminated water pipes have led to water-borne diseases and epidemics. The city's water quality standards have also fallen well below the guidelines set by the WHO.

Moreover, the dumping of untreated sewage into the rivers and the Arabian Sea has exacerbated environmental conditions. The Lyari and Malir rivers are polluted by domestic and industrial sewage. In the absence of effluent treatment plants, industrial waste containing oil, heavy metals and toxic chemicals are discharged directly into the rivers and have affected marine life considerably.

Envisioning Karachi's urban future

The growth of mega-cities and the scale of urbanization in South Asia are inextricably linked. Thereby the effect of one factor on

the other will have a huge bearing on the region's populace. Planned urbanization can improve outcomes for human development by providing people with the necessities and comforts of urban life and ensure their urban future. On the flip side, unplanned urbanization can pose the greatest challenge to the survival and well-being of urban dwellers and exclude them from sharing the benefits of development, as we have seen in the case of Karachi.

It is important to recognize that offering people the opportunities and amenities to prosper is as vital as harnessing urban growth. As a matter of priority, South Asian cities need to be more responsive to human needs. If the contribution of gateway cities like Dhaka, Mumbai, Delhi, Kolkata and Karachi leads to a tangible improvement in people's lives and livelihoods, their contribution to national, regional and global economies will be more substantial. The best way to do so is through mutual learning and collaboration. Replicating successes in the context of local conditions and avoiding past failures will not only enable cities with a sizeable share of the urban population to enhance the quality of urbanization, but also pave the way towards a sustainable and inclusive urban future.

The centripetal attraction of Karachi will wane if its expansion is not in consonance with a rational and environment-friendly approach to infrastructural

Urban spaces like Karachi need to focus on equity, sustainability and urban poverty alleviation

development. While the latter is a costly endeavour and necessitates long-term planning, there are several concrete steps that can be taken in the immediate to short-term. These include: (i) resource mobilization by municipal and provincial authorities to finance basic services; (ii) recovery of losses emanating from water theft and timely replacement of faulty pipelines; (iii) access to formal housing credit for low- and middle-income groups; (iv) capacity-building measures to restore people's trust in local government institutions; and (v) administrative adjustments to ensure citizen safety, all of which will improve the carrying capacity of the city.⁷⁹

Sustainable urban planning needs to be at the forefront of urban policy-making in Karachi, where planning documents are dynamic enough to incorporate real-time adjustments. Principles underlying these policies should entail: (i) due consideration to ecological and environmental conditions in the city and its adjoining areas in addition to the needs and requirements of low-income residents; (ii) social and environmental assessments at all stages to ensure effective land-use management; (iii) minimal speculation over current and potential land values; (iv) protection of land from encroachment and illegal occupation; and (v) adherence to zoning by-laws and building regulations that favour orderly densification of residential and commercial areas.⁸⁰

For a city like Karachi, good urban planning can result in real urban transformation. Balancing the negative externalities associated with a spatial concentration of people and economic activities is contingent upon effective mega-city management. More often than not, the city's problems are caused by the pattern of

land-use, the violation of laws and regulations and overall urban mismanagement. To rectify these, the city's administrative apparatus can conduct annual surveys and assess both the quality of urbanization and its scale. Moreover, it can document the contribution of the informal sector, which plays a central role in the city's growth and function.

Essentially, urban spaces like Karachi need to focus on equity, sustainability and urban poverty alleviation. Beyond ensuring basic survival, cities need to limit the unequal distribution of power, minimize the influence of interest groups and promote equal access to the benefits of urban life. These can only be made possible with greater openness, transparency and responsiveness. Urban developers (both private and public) need to realize that community-based organizations are better suited to understand the predicaments of local residents and to represent their interests in decision-making with regard to local planning and resource provision.

Treating the symptoms and not the causes of urban problems will result in urban decay, the signs of which are increasingly apparent in Karachi. Enhancing livability should therefore be central to the city's urban transition strategy. At a social level, the city's response to urbanization should rest primarily in integrating ethnic groups to create a cohesive urban identity. At a political level, all the stakeholders concerned should advocate for a participatory approach to urban development. At an economic level, the benefits of urban prosperity should be shared equally and equitably across the income-groups. At an environmental level, the city's expansion should factor in ecological limits.

Managing Urbanization: Towards an Inclusive and Sustainable Future*

Realizing the goal of sustainable and inclusive urban development hinges on good urban governance, with special focus on planning and management. Through good urban governance it is possible to develop cities and towns as places where people regardless of their economic means, gender, ethnicity or religion are enabled and empowered to enjoy socioeconomic and political opportunities offered by urbanization. There is, therefore, an urgent need to enhance the capacity of local governments and other stakeholders to inculcate good governance practices while recognizing the importance of urban governance in making South Asia's cities and towns liveable.

Urban management, however, is a multifaceted process, which requires a sizeable information base and sound coordination between the various actors responsible for managing cities. In South Asian countries, this management is made even more difficult by a lack of financial means and technical skills. For this reason among others, the classical instruments for managing urbanization are by far inefficient. The combined effects of rapid population growth, spatial expansion, environmental change and the complex local impacts of the global political economy, thus, go hand in hand with malfunctioning formal governance structures, spatial fragmentation, socioeconomic polarization and political struggles. In this context, the question of urban governance, its quality and spatiality, becomes an urgent one.¹

Planning activity, with its focus on 'improving conditions' is also inherently a governance activity, situated in a diverse landscape of formal government organizations and all other kinds of public, semi-public, voluntary and private agencies

providing some kind of collective goods.² Despite being termed as places of opportunity and engines of growth, cities in South Asia are unable to keep the promise mainly because statutory planning institutions are incapable of mitigating the challenges posed by both urbanization and globalization.³

On a broader level, the chapter explores the interplay between urban governance and urbanization in South Asia. Of key significance is the quality of urban governance—from the structure of urban governance in the region and the myriad issues they raise to the policy perspectives that respective countries adopt. While preceding chapters of this Report have looked at the challenges and opportunities emanating from urbanization in the context of economic growth; physical and social infrastructure; and the environment, this chapter delves into the architecture of urban governance and the extent to which it holds the key to creating sustainable and inclusive towns and cities.

Conceptualizing urban governance

Urban governance is defined as the sum of the many ways individuals and institutions, public and private, plan and manage the common affairs of the city. It is a continuing process through which conflicting or diverse interests may be accommodated and cooperative action can be taken. It includes formal institutions as well as informal arrangements and the social capital of citizenry.⁴ Good urban governance is characterized by the principles of sustainability, subsidiarity, equity, efficiency, transparency, accountability, civic engagement, citizenship and security. These principles are

Through good urban governance it is possible to develop cities and towns as places where people are enabled and empowered to enjoy socioeconomic and political opportunities offered by urbanization

*This chapter has been based on a paper written by Prof. Rizwan Khair of the Institute of Governance Studies, BRAC University, Dhaka.

Governance is neither equated solely with government nor is the state the only player

interdependent and mutually reinforcing.⁵

Viewed in this light, governance is neither equated solely with government nor is the state the only player. The recent concept of urban governance deviates from state-centred standpoints, which have predominantly focused on urban management to incorporate elements that in conventional terms are often considered to be outside the public policy process. These include civic associations, private sector organizations, community groups and social movements, all of which in fact exert an impact on the features and development of urban areas that were considered external to state centred governance earlier.⁶ When urban governance is introduced as the relation between the actors in civil society engaging with local state structures, new territory is opened up for reviving local government.⁷ Current urban governance patterns focus increasingly on the role of informality and informal organizations in the formal governance framework through which the social capital of citizenry can be harnessed.

Governance has far-reaching political and technical implications when applied to the analysis of South Asian countries.

- In the *first* place, it calls for an understanding of the role of the city in the process of national development and the need to address the implications of the defined role in terms of its operation;
- In the *second* place, governance requires capturing an integrated profile of the city in terms of its structural parts, as well as its actors and activities operating within the total complex. A fragmented perspective of the city misses the effect of interactions among its various parts; and
- In the *third* instance, governance involves transcending formal bureaucratic institutions and forging linkages with agencies of civil society. The politics that emerge in this new level of engagement become part and parcel

of the governance process. Similarly, urban communities are treated neither as subjects nor as objects of management. Their interests, institutions and resources are organic components of governance.⁸

Different modes of governance also come into play in this evolving discussion. Three modes of governance that are relevant to the analysis entail hierarchical governance, self-governance and co-governance. Hierarchical governance is 'top-down' governance in which a central 'governor' dominates the shaping and representing of a collectivity. Self-governance is 'bottom-up' governance in which a collectivity is able to shape and represent itself. Co-governance is then where a collectivity works cooperatively with other collectivities in a process of mutual shaping and mutual representation.⁹

Structure of urban governance in South Asia

South Asian countries are beginning to show progress in promoting democratic urban governance. Most countries in the region have some form of local governance involving public participation. Several models of decentralization have been practiced and local government reforms have been initiated for public sector efficiency and democratization. However, in most South Asian countries, the structure of urban governance is such that despite decentralization policies, the central government or provincial/state governments still exert excessive control at financial and administrative levels of local government. In Bangladesh, Nepal and Sri Lanka that have a unitary form of government, it is the central government that influences urban governance. In India, where states have been entrusted with responsibilities of decentralizing powers to local bodies, state governments have not effectively decentralized power. In Pakistan, decentralization policies have in the most part of history been initiated by authoritarian

non-representative central governments. In general, while many national governments still retain control of their cities, the trend is shifting slowly towards delegating administrative powers especially for service provision to the level of authority closest to the public.

Urban governance in Bangladesh

Bangladesh has a unitary form of government. For administrative purposes it is split into six divisions with 64 *zilas* (districts) functioning under them. Districts are key administrative units in the country and are further divided into *upazilas* (sub-districts) and *thanas* (police stations), which are further divided into wards and *mahallas*. City corporations and *pourashavas* (municipalities with basic planning and development authority) form the two types of urban local government in Bangladesh. In addition, there are also some urban centres that fall under Cantonment Boards. The nine largest cities in the country hold the title of a city corporation, while other urban areas fall under the ambit of the 318 *pourashavas*.¹⁰

Bangladesh has delineated administrative responsibilities to local governments through the Pourashava Ordinance 1977. Under the ordinance, municipal authorities are empowered to prepare master plans, implement development schemes and exercise building control. They are responsible for providing a wide range of public goods and services including water supply and drainage, solid waste management, maintenance of educational institutions, public libraries, health facilities, parks and gardens and street and traffic management.¹¹

Urban governance in Bangladesh is subjected to strong control from the central government. Government officials appointed by the federal government are in charge of administration at divisional, district and sub-district levels, as there are no elected representatives at these levels. In urban areas, though the local government system is managed by elected bodies, the

central government yields significant power to make regulations and to intervene in their affairs. It plays a key role in overseeing the functions of urban local governments through its various ministries and departments. There are at least 18 main ministries and 42 organizations, which are involved in the development of urban areas.¹² Development projects for urban areas are submitted for approval to the Planning Commission through sectoral ministries. Two sectoral ministries namely, the Ministry of Local Government and Rural Development and the Ministry of Housing and Public Works are crucial for urban development.

The central government also exercises significant power by directly controlling the flow of finances to local authorities. In Bangladesh, local governments lack financial autonomy and are dependent on grants from the central government to initiate any development schemes. In general, the local government system in Bangladesh is dependent on the central government and lacks administrative, financial and political control.

Urban governance in India

In India, *zilaparishads* (districts) play an important administrative role and are subdivided into *mahanagar-palika* (municipal corporations), *nagar-palika* (municipalities) and *nagarpanchayat* (city councils). Wards form the lowest administrative tier. An executive mayor elected through local body elections serves as the executive head of the municipality and is vested with the primary responsibilities pertaining to its management. However, municipal commissioners are also appointed by state governments to implement policies approved by them.¹³ In practice, there is little clarity about the roles of the executive mayor and the municipal commissioner. Although the municipal commissioner is supposed to execute the decisions of the executive mayor under the prevailing administrative arrangement, the official is functionally accountable to the state government.

The trend is shifting slowly towards delegating administrative powers to the level of authority closest to the public

Despite an elaborate local government set up, the Ministry of Urban Development provides policy guidelines and legislations for urban planning and development

As a result, the municipal commissioner may undermine the decisions taken by the executive mayor and cause delays and deviations in the affairs of municipal governments.

Constitutionally, urban governance structures are determined by the states. India introduced the 73rd and 74th Amendments to the Constitution in 1992 in order to set up a third tier of local government for rural and urban areas. The 74th Amendment has provided a basis for state governments to enlist and assign responsibilities to urban local bodies as a mechanism to strengthen urban governance.¹⁴ The Act provides for initiating reforms in the Constitution, the composition and functioning of urban local governments and empowers state governments to amend their Municipal Acts accordingly.¹⁵

The devolution of administrative and financial powers by state governments remains largely ineffective. The Constitution through its 12th schedule of the 74th Amendment authorizes local bodies to carry out 18 functions including town planning, regulating land use, maintaining roads and bridges, water supply, sanitation and solid waste management, public health, urban poverty alleviation and provision of other basic urban amenities. However, in most of the states these have not yet been devolved by state governments to local bodies. Most urban functions are still carried out by officials appointed by state governments or through agencies controlled by them.

To strengthen participatory planning, Metropolitan Planning Committees have been set up to prepare the draft development plan in every metropolitan area and similar District Planning Committees to consolidate and coordinate planning for urban areas. In addition, *Ward Sabhas* (assemblies) are to be held so as to elicit the preferences of the people for public services and to develop planning from the grass-roots level. However, none of these requirements had really been observed in practice until the National Planning Commission finally mandated the setting up of District Planning Committees. Despite this man-

date, urban local bodies in most states do not as yet have regular *Ward Sabhas* and, even when they exist, these assemblies are not used either for urban planning or for incorporating people's preferences. Similarly, many states are yet to legislate for, let alone create the required Metropolitan Planning Committees.¹⁶

Despite an elaborate local government set up, the Ministry of Urban Development provides policy guidelines and legislations for urban planning and development in the country. It also manages urban finance by providing financial support to state and local level agencies through various urban development programmes like the Jawaharlal Nehru National Urban Renewal Mission (JnNURM), Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT), Urban Reforms Incentive Fund (URIF) and Accelerated Urban Water Supply Programme (AUWSP).¹⁷

Urban governance in Pakistan

Pakistan is a federation of provinces and for administrative purposes it is divided into three tiers of governance—federal, provincial and local. At the local level, the provinces are further divided into districts, tehsils and union sub-divisions. Urban areas are demarcated as towns, municipalities, cities or metropolises depending on their size. The corresponding local governments are town committees, municipal committees, municipal corporations or metropolitan corporations.¹⁸ Local governments and development authorities are vested with the responsibility of urban spatial planning.¹⁹ For city development, city district governments have been mandated to develop master plans, manage infrastructure and key public utilities and provide services like water and sanitation and other municipal services.

While distribution of administrative and fiscal powers between the centre and the provinces are well entrenched in the Constitution and through various amendments, the local government system

has been loosely defined throughout the different phases of its history and is at best still experimental.

The 1973 Constitution under Article 32 suggested encouraging the promotion of local government institutions involving elected representatives of areas concerned, but these have largely remained non-binding. For the most part of Pakistan's history, local governance reforms have mainly been initiated by military governments through promulgation of piece meal ordinances: Basic Democracy Ordinance 1959, Local Government Ordinance 1979 and Local Governance Ordinance 2001. These reforms have largely been seen as an attempt to legitimize power in the hands of a non-representative centre rather than as a genuine step to delegate governance responsibilities to lower tiers.²⁰

With democratic transition, the Constitution was amended in a way to make provinces the centre of governance. The 18th Amendment to the Constitution can be viewed as a step to decentralize power from the federal government to the provinces, however it is an unfinished agenda in terms of devolving powers further to the local administration at the district level. The Amendment has deleted the concurrent list and reassigned most of the functions related to economic and social services to the provinces, such as planning, industry, agriculture and rural development, education, health and social welfare.

The provinces have further been entrusted to control local government institutions, design their respective devolution plans and to determine local government responsibilities. Punjab enacted the Local Government Act in 2013, dividing local governance into union councils, district councils, municipal committees, municipal and metropolitan corporations, *panchayats* and *Musalihat Anjuman* committees. Education and health are the two key social services mandated to local administration. Since 1996, Punjab has a separate department for urban development to manage housing, health, water and sanitation, traffic, transport, parks

and horticulture in urban areas. Sindh has also enacted local government laws but it has not transferred any substantive administrative powers to local governments. Khyber Pakhtunkhwa has also put in place the Local Government Act 2013 and has promised to effectively transfer administrative responsibilities concerning education, health, social welfare, agriculture and livestock, transport and infrastructure, population welfare and planning and development to local governments. The law also promises to transfer 30 per cent of annual development programme funds to local bodies.

Out of the four provinces, only Balochistan has held local government elections. It has formed municipal committees, district committees and union councils. However, there is no clear plan for the transfer of power to the elected local governments, and the province has yet to decide how the transfer of financial and administrative powers will be undertaken. In essence, the modest progress towards local government systems that were made in previous military regimes has been done away with, especially in Sindh and Punjab, where the provincial governments have reintroduced provincial bureaucratic controls through commissioners' offices.

Urban governance in Nepal

Nepal has some form of a local government system since 1948. The Constitution of 1948 introduced the concept of diffusion of power to sub-national bodies for allowing increased participation of citizens in local governance. This initiative was later replicated in Decentralization Plan 1965, Local Administration Act 1971, District Implementation Plan 1975, Integrated Panchayat Development Design 1978 and Decentralization Scheme 1984. However, most of these were ad-hoc efforts for local governance and were never truly implemented in spirit.

Nepal's Local Self Governance Act 1999 under the Constitution of 1991 was the first concerted effort to devolve wider

For the most part of Pakistan's history, local governance reforms have mainly been initiated by military governments through promulgation of piece meal ordinances

Sri Lanka to some extent has been effective in transferring administrative powers to provinces and further to local authorities in both urban and rural areas

authority for planning, service delivery and revenue generation to local government institutions along with increased administrative, judicial and fiscal powers.

The Local Self-Governance Act 1999 called for two tiers of local government—districts at the upper tier and villages and municipalities at the lower tier. These are respectively known as District Development Committees (DDCs), Village Development Committees (VDCs) and Municipalities. As opposed to being local government bodies, these committees and municipalities have been defined as autonomous corporate bodies. At present, there are 775 DDCs, 3,913 VDCs and 58 Municipalities spread across Nepal.²¹

Districts are divided into a minimum of 9 to 17 *ilakas* (areas).²² The executive body of Municipalities and VDCs are formed of directly elected representatives while Municipal and Village Councils (their respective legislative bodies) mainly consist of a number of directly and indirectly elected members and a few nominated members. Councils enact laws, rules and regulations as well as formulate and approve policies and plans to be followed by their respective executive bodies.²³

The Interim Constitution of 2007 formulated after the People's Movement of 2006 followed the principles of the previous Constitution by promoting people's participation in the country's governance system through autonomous local governments. The local bodies are made responsible and accountable for identifying, formulating and implementing projects at the local level. The Constitution also provides municipalities the right to collect revenues through taxes on assets, land markets, vehicles and service charges. However, the base for these financial resources is not strong.

The central government provides policy guidelines to local bodies through its various departments. The Department of Urban Development and Building Construction under the Ministry of Physical Planning and Works (MPPW) implements urban development plans and programmes in Nepal. Similarly, the Ministry of Local

Development (MLD) is responsible for administering the programmes of both Municipalities and VDCs. The ministry deals primarily with administrative and personnel management functions of the local government.

Urban governance in Sri Lanka

Sri Lanka is divided into 9 provinces, under which lie 25 districts and 330 divisional secretariats. The 13th Amendment to the Constitution 1987 and the Provincial Councils Act 42 of 1987 have made constitutional and legal provisions for the establishment of Provincial Councils at the level of the province within the country's unitary constitution.

Sri Lanka to some extent has been effective in transferring administrative powers to provinces and further to local authorities in both urban and rural areas. Currently, three types of urban local bodies exist in the country, including 18 municipal councils for towns with a population greater than 30,000, 42 urban councils for towns with a population between 10,000 and 30,000 and 270 *Pradeshiya Sabhas* for small towns. Provincial Councils receive transfers from the central government and are in charge of supervising urban local bodies.²³

Local bodies are largely entrusted with responsibilities for the provision of public goods and services, especially those related to public health and education, maintenance of local roads and transport infrastructure, drainage and solid waste management. However, just like other South Asian countries, local bodies in Sri Lanka are also dependent on the central government for financial resources to run administrative affairs. In addition to finances, many responsibilities for urban service delivery are centralized. At the central level, 16 ministries and several government agencies operate in urban areas. The Ministry for Defence and Urban Development has been mandated to overlook issues concerning urban development. In addition, the Urban Development Author-

ity is responsible for preparing urban development plans as well as land-use policy. Thus, there is excessive influence of the central government in local government functions.

Key issues of urban governance in South Asia

The discussion above shows how complex the architecture of urban governance is in South Asia. This raises several issues for planning and managing urbanization in the region.

Lack of administrative and institutional capacity

Poor performance in urban governance is reflected in the lack of administrative and institutional capacity of local governments. They are unable to develop, finance and implement policies and programmes on their own. The lack of managerial skills and technical expertise of key personnel complicates the situation further.

In India, the existing organizational structure of urban local bodies, the rules regarding recruitment of staff, lack of performance evaluation, poor professional practices and a missing public service ethos compromise the efficacy of administrative and institutional arrangements.²⁴

In Bangladesh, the Ministry of Environment and Forests in general and the Department of Environment in particular lack the resources and trained manpower to effectively monitor compliance with environmental management and pollution control legislation, especially in Dhaka.²⁵

Overlapping mandates, poor coordination

Urban areas in South Asian countries are governed by multiple institutions, the arrangements of which are uncoordinated between local, provincial/state and national governments. Vertical division among various tiers of government coincides with functional fragmentation of government

departments (public works, transportation and communications, environmental control, etc.) as well as territorial fragmentation (metropolitan area, municipalities, etc.).²⁶ The line of authority and division of jurisdictions are often unclear and poorly outlined thereby, resulting in frequent conflicts of interest and a breakdown of responsibilities. Overlapping mandates across the different tiers of government and among development authorities is a recurrent governance failure. The lack of coordination between institutions dealing with the crosscutting elements of urbanization undermines and in some cases, even reverses the progress that is made.

In Dhaka for example, several agencies are in charge of providing basic services. These include the Dhaka City Corporation; the Capital City Development Authority; Dhaka Electric Supply Authority; Dhaka Metropolitan Police; Titas Gas; various line ministries (e.g., Land Administration, Public Works, Education and Health); the Bangladesh Telephone and Telegraph Board; Bangladesh Road Transport Corporation; and the Dhaka Water and Sewerage Authority. The lack of coordination, increased interagency competition and fuzzy jurisdictional boundaries have created urban chaos in one of the fastest growing mega-cities of South Asia.²⁷

In the case of Sri Lanka, Urban Local Authorities (ULAs) generally retain responsibilities for providing basic amenities, local roads, drainage and solid waste management. The ambiguity in the public sector's roles and responsibilities has created a suboptimal environment for the management of urban services, undermining the scope of the functions assigned to ULAs. These responsibilities are also highly fragmented among the tiers of government. By creating the province as an intermediate tier, the 13th Amendment superimposed a new devolved structure on an existing deconcentrated one and de facto established two parallel independently operating forms of government: centre-district-division (deconcentrated) and centre-province-local (devolved). Coordination between these

Overlapping mandates across the different tiers of government and among development authorities is a recurrent governance failure

Without approval from the central government, most functions of the lower tiers of authority are limited

two is weak, resulting in overlapping mandates and inefficient use of public resources. While the 13th Amendment brought the supervision of the administration of local authorities under the purview of Provincial Councils, these councils play only a small role in strengthening and building capacity at the local level, and no Provincial Council has taken statutory steps to enhance the powers of local authorities under its supervision.²⁸

In Nepal as well, there is poor coordination between central government agencies in charge of urban development. The Ministry of Physical Planning and Works responsible for physical planning of towns and the Ministry of Local Development responsible for administering municipalities have no mechanism to ensure consensus between themselves in matters of urban planning and development. As a result, they work in isolation through their line agencies.²⁹

Failure to decentralize effectively

South Asia's experience with participatory governance points towards the failure to decentralize effectively rather than a failure of the decentralization process itself. Without approval from the central government, most functions of the lower tiers of authority are limited. Municipalities and municipal/city corporations rely on the central government for urban finance, which restricts their ability to ease resource constraints and diminishes their role in urban governance.

In recent years, central and regional governments have encroached upon the traditional functional domain of local governments, as is evident in the case of India. State governments have created para-statal organizations and urban development authorities with functions such as urban planning, zoning and development of urban areas, water supply, sewerage and slum clearance at the expense of urban local bodies. While the 12th Schedule of the 74th Amendment clearly specifies the 18 functions to be carried out by urban local

bodies, most of these still fall under the purview of state governments.³⁰ In Sri Lanka, a number of functions that belong to Provincial Councils constitutionally under the 13th Amendment including those pertaining to police and land administration have not been devolved, despite the fact that Provincial Councils have been established as far back as 1987.³¹ Central government agencies have also gradually taken over most of the public utility functions that had been legally assigned to ULAs.³²

Moreover, centralized control has hindered the day-to-day functioning of local governments due to the nature of inspection and supervision by the upper tiers. With regard to appointments, approval of contracts, sanctioning of new staff positions and framing of bye-laws and rules, Indian states play an overwhelming role. In Bangladesh, the recruitment of manpower and even the transfer of employees are centrally controlled.

In fiscal matters, state control relates to setting of tax rates and user charges in addition to expenditure oversight. Fiscal devolution to urban local bodies is limited by the involvement of State Finance Commissions (SFCs). None of the SFCs established so far have considered additional and alternate sources of revenue for urban local bodies in India.³³

In Pakistan, the 18th Amendment to the Constitution has proposed reassignment of taxing powers between the federal and provincial levels, but it has brought no change to the local governments' taxing powers. Local taxes such as consumer fees on specific services and taxes on construction and maintenance of public utilities are allocated to the local administration. However, they are not adequate. By and large, local governments remain dependent on financial inflows from provinces through the provincial finance commissions.

Inadequate sources of municipal finance

Allocation of resources for infrastructure and urban service delivery remains a challenge for many countries. As millions of

people in South Asia move towards cities, governments are facing difficulties to meet the growing demand for various kinds of urban services and infrastructure. In fact, South Asia is not unique as far as urban financing constraints are concerned. The lack of revenue and the expenditure-revenue gap are two of the biggest problems facing most cities all over the world, which makes them one of the most vulnerable layers of government, with increasing responsibilities and a small share in the allocation of public resources.³⁴ This dichotomy between multiple functions and limited funds leaves local governments at a disadvantage.

In Bangladesh, urban local bodies raise a small portion of the revenue from their own sources while a significant portion comes from government grants. Weak financial capacity of *pourashavas* contributes to poor service delivery and weak or non-existing operations and maintenance of systems. Lack of adequate maintenance expenditures and inadequate user charges and cost recovery practices further exacerbate the problem. Poor resource mobilization efforts in many *pourashavas* are caused by the lack of timely reassessment and under-valuation of property. Thus, *pourashavas* are unable to realize the full financial potential of property taxes. As a consequence, there is over-dependency on intergovernmental transfers and grants, which paves the way for greater control by central governments.

The city corporations in Bangladesh have much higher local revenue potential than other urban local government bodies, but their pattern of revenue collection is the same. Only one-third of revenue comes from their own sources. The largest share of revenue of city corporations comes from donor-supported projects, followed by financing from block grants and support of government projects.

Following the experiences of other countries, efforts have been made in Bangladesh to create special funds to provide finance to the development of urban centres. This includes the Municipal Services

Project and the Bangladesh Municipal Development Fund.

In Sri Lanka, there is no formal policy of revenue sharing between central and local governments and the Finance Commission makes decisions on an ad-hoc basis.³⁵ Municipal finance and other resources are inadequate for efficient urban service delivery. ULAs accounted for less than two per cent of total annual government revenue and expenditure in 2008. When examined by spending shares for national, provincial and local tiers of government, the local expenditure proportion is inadequate for substantial local engagement in providing urban services. ULAs therefore remain marginal players as public service providers. In their budgetary operations, ULAs focus almost exclusively on maintenance rather than capital development and even local resources allocated to maintenance are often inadequate. The capital programme of ULAs is limited and relies heavily on capital grants and central allocations for financing. The ULAs' share of capital spending in total municipal outlays varies significantly. Property tax is the biggest source of revenue for ULAs but is still vastly underused as a resource-management tool. While local authorities have the power to set property tax rates, collection efforts are modest. ULAs have little incentive to increase revenue collections and limited capacity to carry out regular evaluations because of shortages in tax assessors.³⁶

Although the Local Self Government Act in Nepal has made legal provisions for municipalities to generate revenue through taxes, their base for financial resources is not strong. Without the autonomy to generate sufficient financial resources, it is difficult for local governments to carry out social and economic development tasks.³⁷

In Pakistan's case, the tax base of provincial and local governments is limited due to the control exercised by the federal government over all major tax revenues like import duties, sales tax, excise duties and income tax (corporate and personal). Cur-

South Asia is not unique as far as urban financing constraints are concerned

The rapid pace of urbanization has superseded the pace of urban planning and implementation of urban development programmes

rently, provinces receive a share of federally levied and collected taxes as a transfer, which account for 80 per cent of provincial revenues. The ordinances under which local governments were established permit transfers from provincial to local governments, namely, District and City District Governments. The latter in turn make transfers to town and union councils.³⁸

In India, urban local bodies account for a little over two per cent of the combined revenue of all levels of the government, federal, state and local. Total municipal revenues in India account for only 0.75 per cent of GDP. It is estimated that urban local bodies in India derive an average of 40 per cent of their revenue from grants and other transfers from state governments. In addition to grants from state governments, urban local bodies also receive grants from the Federal Finance Commission as well as through centrally sponsored para-statal organizations.³⁹

Presently, India's cities work from a meager resource base, availing a very small portion of total government resources. This resource base is inconsistent with the economic potential of cities and the high returns to be made by improving urban services. User charges and cost recovery for key services like water are amongst the lowest in the world. India's cities receive much lower grant assistance and shared taxes than in most other countries, especially those that use property taxation as the main revenue base for local governments. India's own urban revenue base is also particularly constrained because the real estate sector on which property taxes rely is exceptionally repressed.

Lack of principle-based governance

South Asian countries have yet to incorporate key principles of good urban governance into their processes and systems of governance. Corruption is a recurrent phenomenon and is symptomatic of weak accountability mechanisms that exist across the board. Often, financing flows to lower tiers of government are neither transparent

nor predictable due primarily to the nature of patron-client relations prevalent in the public sector. Selection of representatives in local governments is also opaque. For instance, under the auspices of the 74th Constitutional Amendment Act in India, state governments have the right to nominate members for the Ward Committees.⁴⁰ Often, these appointments are based on patronage networks and derail the participatory nature of governance.

In Pakistan, both military and democratic regimes have had a contrasting attitude towards local governments. While the former has supported the semblance of a local government system, the latter has tried to control it. However, none have approached it in a manner consistent with good governance with higher standards of accountability at the local level. Military governments have used local governments as a tool to gain legitimacy and to weaken the base of political parties, whereas political parties have perceived local governments as a threat to their relevance and curbed their development also out of fear of losing a tier of government to political opponents.

Ambitious plans, lack of planning

One of the main reasons why South Asia's urban centres are beset with problems is because urbanization is trapped in a policy web. Respective countries in the region have outlined some ambitious plans, however there are multiple and conflicting policy priorities where the roadmap for urban development is rather unclear (see box 7.1).

The lack of integration between urban and sectoral plans has resulted in poor urban planning in South Asian countries. The rapid pace of urbanization has also superseded the pace of urban planning and implementation of urban development programmes. This puts a heavy burden on urban infrastructure, housing, land and urban service provision. For instance, all urban local bodies in Nepal are required to prepare five-year development plans, how-

Box 7.1 Urban policies in South Asia

Bangladesh: The National Urban Sector Policy 2011 envisions a decentralized and participatory process of urban development in which the central government, the local government, the private sector, civil society and the people all have their roles to play. The major objectives of the Policy are to ensure regionally balanced urbanization through decentralized development and hierarchically structured urban systems; to facilitate economic development, employment generation, reduction of inequality and poverty eradication through appropriate regulatory frameworks and infrastructure provision; to ensure optimum utilization of land resources and to meet increased demand for housing and urban services through public-private and other partnerships; to protect, preserve and enhance the urban environment; and to devolve authority at the local urban level and strengthen local governments through appropriate powers, resources and capabilities in order for them to take effective responsibility for a wide range of functions including planning, infrastructure provision and service delivery.

India: The Ministry of Urban Development has prepared a Strategic Plan for 2011-2016 that would inform the plans and policies carried out by the Government of India and various states that hold the primary responsibility for urban development. The Plan acknowledges India's exposure to increasing urbanization and the vast implications it holds for the country and therefore, recommends stronger co-operation between the Union, states and cities. The mission is to promote cities as engines of economic growth through improvements in the quality of urban life by facilitating creation of quality urban

infrastructure, with assured service levels and efficient governance. For the next three years, the Plan envisages provision of urban infrastructure, urban services including water supply, sewerage, solid waste management, storm water drainage, transport and e-governance.

Pakistan: Pakistan lacks a comprehensive urban policy framework. In 2010, the Planning Commission undertook measures to set up a Task Force on Urban Development, which identified some basic challenges and laid out a few possible solutions related to urbanization. According to the report prepared by the Task Force, the pace of urbanization in Pakistan has intensified deficits in urban infrastructure and increased urban poverty. The widening of spatial and socioeconomic inequalities between the rich and the poor has magnified the shortcomings of urban governance institutions in the country. Following this report, the Framework for Economic Growth prepared by the Planning Commission in 2011 included some urban development strategies—shifting the role of government from provider to facilitator; promoting public-private partnerships in urban development; addressing housing shortages; reviewing zoning and building regulations; introducing energy-efficient construction techniques; and establishing coordination mechanisms for urban development activities at the federal, provincial and local levels.

Nepal: Nepal's five-year national plans form the basis of its urbanization policy. The Three-Year Interim Plan of 2007 recognized that urban development has been compromised by the lack of policy direction, the lack of coordination among agen-

cies regarding physical development plans and unhealthy competition between town development committees and municipalities due to overlapping mandates. Currently, the Government of Nepal is trying to contain the haphazard growth of urban areas and to strengthen the institutional capacity of organizations engaged in urban development.

Sri Lanka: The Mahinda Chintana, Sri Lanka's main development policy framework has defined an urban vision for the country, which includes developing a system of competitive, environmentally sustainable, well-linked cities clustered in five metro regions and nine metro cities and providing every family with affordable and adequate urban shelter by 2020. Sri Lanka's National Physical Planning Policy has stressed upon the following elements that drive its National Physical Plan 2011-2030: incorporating potential internal development opportunities; implementing environmentally sustainable development across the country; strengthening ethnic integration between the communities; introducing planned settlement networks; conserving valuable environmentally sensitive areas; mitigating natural disasters by limiting development in areas prone to natural hazards; developing compact cities with modern urban facilities and utilities; transforming small urban centres into strong service centres; developing sufficient services and infrastructure facilities to cater to the growing population; providing proper linkages among land use, transport and economic activities; reducing regional and income disparities; and increasing employment opportunities.

Sources: GOB 2011b, GOI 2011b, GOP 2011a and c, GOS 2011, Dhakal 2012 and World Bank 2012b.

ever due to lack of funding, most are not implemented. In the Kathmandu Valley especially, spatial planning is severely compromised. Without effective mechanisms for coordination at the metropolitan level, fragmentation and an overlap of institutional responsibilities between central and

local authorities in the planning and delivery of infrastructure and services negatively impact the Kathmandu Valley. The failure to coordinate hinders the efficient provision of transportation and infrastructure services. Institutional fragmentation and the absence of cooperation on a territorial

Challenged by the demands of a growing urban population and faced with severe capacity constraints, local governments are now increasingly looking towards public-private and community partnerships

basis also perpetuate dysfunctional labour and housing markets and socioeconomic imbalances within the metropolitan area as are evident from the low rates of innovation and job creation, social segregation and deterioration of the urban fabric.⁴¹

Even in India's major metropolitan areas, city governance and urban planning have come under serious criticism. Firstly, India's urban growth is so dramatic that it consistently outstrips even the most imaginative planner's vision for it. Secondly, Indian planners consistently underestimate infrastructure and service needs for future unforeseen growth.⁴²

Urban governance for inclusive and sustainable cities in South Asia

In the face of rapid urbanization, the transformation of South Asia's urban landscape is inevitable. However, the nature of that transformation rests ultimately on the quality of urban governance. It is not only the fast pace of urbanization that is a cause for concern in the region, but also the large amounts of wealth that coexist with rampant poverty in urban areas, especially in some of South Asia's chaotic mega-cities, the numbers of which are on the rise. Managing urbanization in this context is less about addressing urban growth and more about dealing with the larger issues of governance, sustainability and inclusive urban development.

South Asian cities need strong and effective planning systems for responding to the challenges created by urbanization, both in the present as well as in the future. Some cities in the region have recently made efforts in reforming their planning and governance systems to foster more inclusive urban development, yet many systemic weaknesses remain. Karachi's planning system has often been singled out as contributing towards uncontrolled urban sprawl, haphazard development, uneven infrastructure provision and a polluted urban environment with little room for citizen engagement. The city has come up with five master plans for its development

since 1923, with none of them being effectively implemented.

Local governments in the region are still struggling for political and financial independence from federal and provincial/state governments in the face of decentralization reforms that have met with moderate success. Due to limited authority and resources, local governments have been unable to extend services to poor urban communities. Effective governance by empowered political leaders can ensure that cities are able to implement strategies without interference from other levels of governance. In India for instance, Delhi has been able to effectively plan and improve public transport. In contrast, Mumbai being run by a Municipal Commissioner, has sometimes had its decision-making powers curtailed by the Government of Maharashtra.

Municipal governments have remained preoccupied with balancing budgets and politics, and as a result, the urban poor have become less of a priority. Ineffective solutions have been undertaken as short-term fixes to long-term challenges. For example, in Mumbai the urban governance approach to dealing with urban poverty and slums has, in some cases, resulted in forced eviction and demolition of settlements rather than giving slum dwellers tenure security or access to basic services like water and sanitation. The government of Maharashtra also blocked drinking water to slums to prevent encroachment on public land. Such tactics to push slum dwellers out is evident throughout South Asia, not just in India.⁴³

Challenged by the demands of a growing urban population and faced with severe capacity constraints, local governments are now increasingly looking towards public-private and community partnerships. There are encouraging examples of initiatives in the region in which NGOs, with support from local governments, have provided water and sanitation services at low cost. In the Indian city of Pune, community toilets were built as a result of such partnerships. In Karachi, the Orangi Pilot Project (OPP) has developed an innova-

tive ‘internal-external’ model for providing sanitation services to hundreds of informal settlements in the city. Similarly, Bangladesh Rural Advancement Committee (BRAC) in Bangladesh has partnered with the local government to provide solid waste management in many slum areas in cities. Citizen’s Report Cards (CRCs) for monitoring service delivery are also a good example of participation in governance mechanisms. CRCs provide: (i) credible user feedback on public services; (ii) opportunities to communities to demand more access, responsiveness and accountability from service providers; (iii) an effective diagnostic tool for service providers and encourages them to introduce citizen friendly practices; (iv) an environment to facilitate demand mobilization and ‘rights-based’ strategies; and (v) a continuous benchmarking of public services (see chapter 5).⁴⁴

Such partnerships between local governments and private and community organizations are encouraging especially for providing basic urban services. However, the management and financing role of local governments is crucial when it comes to making large investments in urban infrastructure and transport. Local governments in the region need to be empowered in order to be able to empower their urban residents—they need to have a measure of fiscal and decision-making autonomy, to generate local tax revenues and to develop and implement plans to provide local infrastructure and services.⁴⁵ While decentralization reforms across the region have made attempts to offer constitutional protection to local governments, much remains to be done to actually empower them as an independent tier of government. As a starting point, building the administrative capacity of local governments, institutionalizing coordination mechanisms for improved city management and recruiting and retaining competent staff are steps in the right direction.

To sum up, we present below four key recommendations for improving urban governance in South Asia:

Mobilizing urban finance

How urban development and management is financed is crucial to the inclusiveness and sustainability of cities in South Asia. Key challenges that need to be overcome are reforming existing municipal finance systems to make them more effective; accessing new external sources of finance; and building stronger linkages between the formal urban development finance system and the financing systems of the informal sector.

India’s system of urban finance offers some important advantages (see box 7.2). India has a strong financial sector that can provide a precious resource for meeting the capital financing needs of its cities, once they have the resource base to access these markets. Where financial markets do not readily allow municipalities to access long-term credit, they should consider private participation in urban infrastructure projects.

Undertaking effective decentralization

The process of decentralization in South Asia needs to reinforce the principle of subsidiarity, which means that functions and activities that can be done at a lower level should not be done at a higher level and vice-versa. Thus, local governments should not do what communities can do and higher levels of government should not do what local governments can do. Following this principle will minimize the impact of interagency competition, poor institutional coordination and overlapping mandates on local government functions.

Moreover, the legislative provisions for local governments that have been recognized by central and state/provincial governments in respective countries of the region need to be made unambiguous. This will bring greater clarity about the powers, authorities, duties and functions of local governments and compel higher tiers of government to undertake the types of institutional reforms they have agreed to implement.

While decentralization reforms across the region have made attempts to offer constitutional protection to local governments, much remains to be done to actually empower them

Box 7.2 Jawaharlal Nehru National Urban Renewal Mission (JnNURM) in India

The JnNURM programme is one of the most recent, widespread and large-scale urban reform programmes in the world covering over 65 cities across 31 states/union territories with an investment of US\$14.3 billion. JnNURM has been the flagship urban programme of the Government of India since its inception in 2005 with the main objective of promoting reform driven, fast track and planned development of identified cities over a seven-year period.

The programme seeks to reform the existing urban policy environment and create basic infrastructure to enable cities to maximize their contribution to economic growth and poverty reduction.

JnNURM comprises two sub-missions: Urban Infrastructure and Governance (UIG) and Basic Services to the Urban Poor (BSUP) and two schemes: Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) and Integrated Housing and Slum Development Programme (IHSDP). The UIG sub-mission and UIDSSMT scheme are directed at city infrastructure, while BSUP and IHSDP seek to promote integrated development of slums and housing and provision of basic services to the urban poor.

JnNURM requires all states and cities to implement 23 reforms over the

seven-year period of the programme in order to qualify for funding. Participating states and cities are required to sign a Memorandum of Agreement (MOA), which is a tripartite agreement between the centre, states and urban local bodies, bearing a commitment of the state and the urban local body to implement the reform agenda according to an agreed timeline. Cities participating in JnNURM are entitled to receive a government grant to cover 35 to 90 per cent of the approved project cost. It also requires cities to prepare a 'City Development Plan' (CDP), which is a perspective and vision plan for development of the city.

Source: CLGF 2011.

Institutionalizing e-governance

The information and communications technology revolution in South Asia bodes well for installing e-governance systems for improved urban governance. By utilizing computer and internet based activities, several governance functions have become streamlined, less time-consuming and less expensive. Some of the technologies used in availing official services such as passports, identity cards and licenses; for paying municipal charges and utility bills; filing on-line complaints and grievances; making enquiries; and maintaining information databases have greatly enhanced the efficiency of government officials and equipped them with latest applications and tools. These efforts need to be replicated across the various tiers of urban governance in the region.

Adopting a cross-sectoral approach to urban development

In order to make South Asia's cities sus-

tainable and inclusive, a cross-sectoral approach to urban development should be pursued. The principles underpinning this approach should include: social and spatial equity, growth with redistribution, empowerment of poor and marginalized groups and environmental sustainability. Such a comprehensive focus will create cities with fewer disparities, greater employment and income generating opportunities, better access to urban services and a cleaner environment. In this respect, spatial planning can be a useful tool for improved integration and cross-sectoral interaction between sectors related to water, waste, transportation, energy, etc. Adopting such an approach at this point in time may be difficult because it requires fundamental changes to the current patterns of urban development. However, urban planners can start making incremental adjustments to their existing plans and identify the cumulative gains that can be made across the various sectors. This step will go a long way in securing a viable future for South Asia's growing urban population.

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73. Zaman and Baloch 2011.
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75. For instance, the deadly garment factory collapse in Bangladesh in 2013 resulted in deaths of more than 1,100 workers. Similarly, in 2012, 250 workers died in a fire at a garment factory in Pakistan. The Bhopal gas leak in India in 1984 also put people and the environment at risk. All these incidents show the importance of government regulations. World Bank 2013i.

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62. UN-Habitat 2010b.
63. ADB 2013a.
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65. Ahmed 2009.
66. Carr 2012.
67. UN-Habitat 2012a.
68. Ibid.
69. Tranchant 2013.
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4. Particulate matter concentrations refer to fine suspended particulates less than 10 microns in diameter (PM₁₀) that are capable of penetrating deep into the respiratory tract and causing significant health damage.
5. The most commonly reported parameter as an indicator of air pollution which is also blamed for severe health effects is particulate matter.
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27. ENPO, Nepal 2013.
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61. Sherbinin *et al.* 2007.
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64. World Bank 2008.
65. *Down to Earth* 2010.
66. For instance, 70 per cent of Sri Lanka's urban population and 80 per cent of its economic infrastructure networks are concentrated in coastal cities and in disaster prone hilly areas. UN-Habitat 2013a.
67. Besides direct economic losses, climate change can also have indirect losses such as interruption of business operations, a decrease in private and public revenues, an increase in unemployment and market destabilization.
68. Alam and Rabbani 2007.
69. UN-Habitat 2011a.
70. Revi 2008.
71. Memon 2010.
72. UN 2009.
73. Biermann and Boas 2010.
74. For instance, in slum areas of Dhaka, about 10 per cent of slum dwellers were found to be migrants from rural areas during 1998, 2004 and 2007 floods. The people who migrated before 2004 suffered again by the devastating floods of 2004 and 2007. Islam and Khan 2013.
75. Rajan 2008.
76. Islam and Khan 2013.
77. MHHDC 2013.
78. Especially buildings have a major role to play, because of the disproportionate amounts of natural resources, waste and pollution they involve. For instance, according to the *State of the World's Cities 2012/13* report, 60 per cent of the operational energy of a typical building goes to cooling and heating, 18 per cent to water heating, 6 per cent to refrigeration and 3 per cent to lighting. UN-Habitat 2012b.
79. MGI 2010.
80. For instance, in Dhaka the levels of PM₁₀ dropped from 330 microgrammes per cubic metre (µg/m³) in 2003 to 238 µg/m³ in 2004, but went up to 291 µg/m³ in 2008. Similarly, in Delhi the levels of PM₁₀ dipped from 159 in 2000 to 121 µg/m³ in 2005, but increased to 218 microgramme µg/m³ in 2008. UN-Habitat 2010c.
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84. The concept of ISWM can be explained in two parts: physical elements and governance features. Physical elements include three components: public health, the environment and resource management. Governance features consist of three characteristics: inclusiveness, financial sustainability, and sound institutions and proactive policies.
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39. Hasan *et al.* 2013.
40. CDGK 2007.
41. Ibid.
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56. ASER, Pakistan 2013.
57. CDGK 2007.
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64. The poverty line is based on a calorie intake of 2,350 calories per adult per day and also includes basic non-food requirements. This equals to PKR748.6 per month per adult in fiscal year 2001 as calculated for the Poverty Reduction Strategy Paper. GOP 2003.
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79. Based on an interview with Dr. Noman Ahmed, Professor and Chairman of Architecture and Planning Department, NED University of Engineering and Technology, Karachi.
80. Based on an interview with Arif Hasan, Chairman, Urban Resource Centre and Orangi Pilot Project, Research and Training Institute, Karachi.

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Statistical Profile of Urbanization in South Asia

Contents

Note on Statistical Sources for Urbanization Tables

Table 1: Summary of Key Urbanization Data

Population trends	Homicide rates
Total population	Urban environment
Urban population	Outdoor/urban air pollution attributable deaths and disability adjusted life years (DALYs), rates
Rural population	Urban solid waste generation rate per capita
Urbanization and slum population	Percentage of urban population in LECZ
Percentage of population living in urban areas	Annual average economic losses from natural disasters
Percentage of urban population living in slum areas	Urban economy
Population in the largest city as a percentage of urban population	Sectoral share of GDP
Housing	Share of informal employment in non-agricultural/urban employment
Improved drinking water coverage, urban	Share of unorganized sector in GDP
Improved sanitation coverage, urban	Population below income poverty line
Proportion of urban population with durable housing	Urban
Proportion of urban population with sufficient living area	Rural
Socioeconomic disparities and crimes	Urban inequality
Literacy rate, urban	
Percentage of malnourished children under-five	

Table 2: Population trends

Total population	Number
Number	Annual growth rates
Annual growth rates	Rural population
Population density	Number
Urban population	Annual growth rates

Table 3: Urbanization and Slum Population

Level of urbanization	Distribution of urban households by type of residence
Percentage of population living in urban areas	Area with 25 % or less slum households
Annual rate of change	Area with 26-50 % of slum households
Urban slum population	Area with 51-75 % of slum households
Number	Area with 75+ % of slum households
Percentage of urban population	

Table 4: Urban Agglomerations

Population in cities with population of 10 million or more	Percentage of urban population
Number of agglomerations	Population
Percentage of urban population	Population in cities with population of fewer than 500,000
Population	Percentage of urban population
Population in cities with population of 5 to 10 million	Population
Number of agglomerations	Population of capital cities
Percentage of urban population	City name
Population	Population
Population in cities with population of 1 to 5 million	Percentage of urban population
Number of agglomerations	Percentage of total population
Percentage of urban population	Population in the largest city
Population	Population
Population in cities with population of 500,000 to 1 million	Percentage of urban population
Number of agglomerations	Percentage of total population

Table 5: Housing

Improved drinking water coverage	Total
Urban	Improved sanitation coverage
Rural	Urban
Total	Rural
Household connection to improved drinking water	Total
Urban	Proportion of urban population with durable housing
Rural	Proportion of urban population with sufficient living area

Table 6: Socioeconomic Disparities and Crimes

Net enrolment in primary education, male	Percentage of children with diarrhoea
Urban	Urban
Rural	Rural
Non-slum	Non-slum
Slum	Slum
Total	Total
Net enrolment in primary education, female	Percentage of female aged 15-24 years non-employed
Urban	Urban
Rural	Rural
Non-slum	Non-slum
Slum	Slum
Total	Percentage of female aged 15-24 years in informal employment
Literacy rate	Urban
Urban	Rural
Rural	Non-slum
Non-slum	Slum
Slum	Police recorded crimes
Percentage of malnourished children under-five	Homicide rates
Urban	Assault rates
Rural	Robbery rates
Non-slum	Burglary rates
Slum	Kidnapping rates
Total	Theft rates

Table 7: Transport Infrastructure

Roads	Pump price for fuels
Total network	Diesel
Paved	Gasoline
Passengers carried	Road motor vehicles
Goods transported	Passenger cars
Railways	Motor vehicles
Total route	Road traffic deaths
Passengers carried	Number
Goods transported	Rate

Table 8: Urban Environment

Outdoor/urban air pollution attributable deaths and disability adjusted life years (DALYs), overall
Deaths
Disability adjusted life years (DALYs)
Outdoor/urban air pollution attributable deaths and disability adjusted life years (DALYs), under-five
Deaths
DALYs
Under-five mortality rate by urban wealth quintile
Poorest
Richest

Urban solid waste generation rate per capita
Urban population at risk from sea level rise
Total population in low elevation coastal zone (LECZ)
Urban population in LECZ
Percentage of LECZ urban to total urban
Percentage of urban population in LECZ
Natural disasters
Annual average number of disaster-events
Annual average number of disaster-affected people
Annual average economic losses from natural disasters

Table 9: Urban Economy

Value added per worker
Primary
Secondary
Tertiary
Total
Ratio of average wages
Industry to agriculture
Services to agriculture
Sectoral share of employment and GDP
Agriculture
Industry
Services
Share of informal employment in non-agricultural/urban employment
Overall
Female

Share of unorganized sector in GDP
Educational attainment of the labour force
No education
Primary
Secondary
Tertiary
Quality of infrastructure
Infrastructural constraints faced by firms in the urban/non-agricultural formal sector
Percentage of firms identifying electricity as a major constraint
Percentage of firms identifying transportation as a major constraint
Percentage of firms owning or sharing a generator
Firms' value lost due to power outages

Note on Statistical Sources for Urbanization Tables

The special urban data for this Report have been collected from numerous international sources. In general, international sources include United Nations Population Division (UNPD), United Nations Human Settlements Programme (UN-Habitat), United Nations Children's Fund (UNICEF), United Nations Statistics Division (UNSD), World Health Organization (WHO), Centre for International Earth Science Information Network (CIESIN), World Resource Institute (WRI), United Nations Office on Drugs and Crime (UNODC), World Economic Forum (WEF) and the World Bank.

Countries in the indicator tables are arranged in descending order according to population size. Data for South Asia

is the total(T)/weighted average value of eight countries, India, Pakistan, Bangladesh, Afghanistan, Nepal, Sri Lanka, Bhutan and the Maldives.

Since data obtained from national sources limit international level comparability, efforts have been made to use international data. Although data from international sources are not as current as the ones available in national sources, preference has been given to the former due to the nature of the data required. There is, however, scarcity of international and national data for both Bhutan and the Maldives.

Extra care has also been taken to ensure that information provided in the tables is both reliable and consistent.

1. Summary of Key Urbanization Data

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Population trends^a										
Total population, millions										
2010	1,225	173.6	148.7	31.4	30.0	20.9	0.73	0.32	1,630T	5,660T
2050	1,692	274.9	194.4	76.2	46.5	23.2	0.96	0.41	2,309T	7,994T
Urban population, millions										
2010	379	62.3	41.5	7.3	5.0	3.1	0.25	0.13	498T	2,601T
2050	875	154.0	101.4	33.1	17.1	7.0	0.55	0.27	1,189T	5,125T
Rural population, millions										
2010	846	111.3	107.2	24.1	25.0	17.7	0.47	0.19	1,132T	3,059T
2050	817	120.9	93.0	43.1	29.4	16.2	0.41	0.14	1,120T	2,869T
Urbanization and slum population										
Percentage of population living in urban areas ^a										
2010	30.9	35.9	27.9	23.2	16.7	15.0	34.8	40.0	30.6	46.0
2050	51.7	56.0	52.2	43.4	36.7	30.3	57.3	65.6	51.5	64.1
Percentage of urban population living in slum areas										
2009	29.4	46.6	61.6	...	58.1	...	...	...	34.9	32.6 ^b
Population in the largest city as a percentage of urban population										
2012	5.9	21.0	34.5	57.1	23.9	22.1	...	97.1	12	...
Housing										
Improved drinking water coverage, urban (%)										
2011	96	96	85	85	91	99	100	100	95	95
Improved sanitation coverage, urban (%)										
2011	60	72	55	46	50	83	74	97	61	74
Proportion of urban population with durable housing										
2006	81	87	46	...	72	...	...	...	78	...
Proportion of urban population with sufficient living area										
2006	63	46	68	...	74	...	...	...	62	...
Socioeconomic disparities and crimes										
Literacy rate, urban										
1999	62.2	50.6 ^c	62.2	...	...	...	...	...	60.9	...
Percentage of malnourished children under-five, urban										
2005-07 ^d	34.3	40.4 ^c	30.6	...	29.0	...	...	...	34.4	...
Homicide rates, per 100,000 population										
2008-11 ^d	3.5	7.8	2.7	2.4	2.8	...	1.0	1.6	3.8	...

Continued

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Urban environment										
Outdoor/urban air pollution attributable, deaths, per 100,000										
2008	14	25	6	12	2	4	0	8	14	...
DALYs, per 100,000										
2004	118	207	74	58	37	44	0	59	120	...
Urban solid waste generation rate per capita (kg per person)										
1995	0.5	...	0.5	...	0.5	0.9	...	...	0.5	...
2025	0.7	...	0.6	...	0.6	1.0	...	...	0.7	...
Percentage of urban population in LECZ										
2000	49.9	53.6	24.7	...	...	43.1	...	2.2	37.9	54.2
Annual average economic losses from natural disasters (US\$, millions)										
2003-13	2,166	2,163	489	15	6	183	0	...	5,022T	...
Urban economy										
Sectoral share of GDP, 2010,										
agriculture	17	20 ^e	18 ^f	...	36 ^g	12	16	4 ^h	18	...
industry	51	45 ^e	48 ^f	...	66 ^g	33	60	12 ^h	51	...
services	57	54 ^e	54 ^f	...	49 ^g	58	40	77 ^h	56	...
Share of informal employment in non-agricultural/urban employment										
2004-10 ^d	84	78	74	79	81	62	51	43	82	...
Share of unorganized sector in GDP (%)										
2007	26	40	37	...	38	47	31	32	29	...
Population below income poverty line (%)										
Urban population below income poverty line (%)										
2005	25.7	14.9	28.4	...	...	7.9 ⁱ	...	...	24.6	...
2010	13.7 ⁱ	13.1 ^h	21.3	29.0 ^e	15.5	5.3	1.8 ^j	...	14.5	...
Rural population below income poverty line (%)										
2005	41.8	28.1	43.8	...	...	24.7 ⁱ	...	...	40.3	...
2010	25.7 ⁱ	27.0 ^h	35.2	37.5 ^e	27.4	9.4	16.7 ^j	...	26.7	...
Urban inequality (Gini coefficient)										
2000-04 ^d	0.34	0.34	0.37	...	0.43 ^j	0.42	...	...	0.35	...

Notes: a: The values shown are mid-year estimates for 2010 and projections for 2050. b: Data refer to 2010. c: Data refer to 1990. d: Data refer to most recent year available. e: Data refer to 2008. f: Data refer to 2005. g: Data refer to 2001. h: Data refer to 2006. i: Data refer to 2003. j: Data refer to 2012. k: Data refer to 1998.

Sources: Row 1: UNPD 2014; Row 2: UN 2013, UN-Habitat 2012b, UNPD 2014 and MHHDC staff computations; Row 3: World Bank 2013h; Row 4: UNICEF and WHO 2013 and UN-Habitat 2013c; Row 5: UN-Habitat 2013c and UNODC 2013; Row 6: WHO 2013, UN-Habitat 2010c, CIESIN 2007 and CRED 2013; Row 7: World Bank 2012a, 2013h, WEIGO (forthcoming) and Schneider *et al.* 2010; Row 8: World Bank 2013h; Row 9: UN-Habitat 2009.

2. Population Trends

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Total estimated population										
Number (millions) ^a										
2000	1,054	144.5	129.6	22.9	24.4	18.7	0.57	0.27	1,395T	4,934T
2010	1,225	173.6	148.7	31.4	30.0	20.9	0.73	0.32	1,630T	5,660T
2020	1,387	205.4	167.3	42.1	35.2	22.3	0.83	0.36	1,860T	6,383T
2030	1,523	234.4	181.9	53.3	39.9	23.1	0.90	0.38	2,057T	7,025T
2040	1,627	257.8	190.9	64.8	43.7	23.4	0.94	0.40	2,209T	7,567T
2050	1,692	274.9	194.4	76.2	46.5	23.2	0.96	0.41	2,309T	7,994T
Annual growth rate (%) ^a										
2000-10	1.5	1.8	1.4	3.2	2.1	1.1	2.4	1.5	1.6	1.4
2010-20	1.3	1.7	1.2	3.0	1.6	0.7	1.3	1.2	1.3	1.2
2020-30	0.9	1.3	0.8	2.4	1.3	0.3	0.8	0.7	1.0	1.0
2030-40	0.7	1.0	0.5	2.0	0.9	0.1	0.5	0.4	0.7	0.7
2040-50	0.4	0.6	0.2	1.6	0.6	-0.1	0.2	0.2	0.4	0.6
Population density										
2000	317.1	180.7	919.3	31.6	157.5	287.2	12.0	915.3	353.2	59.5
2005	342.9	198.4	994.0	38.1	171.8	304.1	13.8	998.6	381.4	63.9
2010	366.8	217.5	1,049.5	43.5	182.4	316.4	15.3	1,092.9	405.4	68.4
Urban population^a										
Number (millions)										
2000	292	47.9	30.6	4.7	3.3	2.9	0.15	0.08	381T	1,977T
2010	379	62.3	41.5	7.3	5.0	3.1	0.25	0.13	498T	2,601T
2020	483	81.2	55.3	11.2	7.1	3.7	0.35	0.18	642T	3,271T
2030	606	104.2	71.1	16.6	9.9	4.7	0.43	0.22	813T	3,920T
2040	743	129.5	87.0	24.0	13.3	5.8	0.50	0.24	1,003T	4,537T
2050	875	154.0	101.4	33.1	17.1	7.0	0.55	0.27	1,189T	5,125T
Annual growth rate (%)										
2000-10	2.7	2.7	3.1	4.5	4.3	0.6	5.7	5.3	2.7	2.8
2010-20	2.5	2.7	2.9	4.4	3.6	1.6	3.3	3.6	2.6	2.3
2020-30	2.3	2.5	2.5	4.0	3.4	2.4	2.2	2.0	2.4	1.8
2030-40	2.1	2.2	2.0	3.7	3.0	2.3	1.4	1.2	2.1	1.5
2040-50	1.7	1.7	1.5	3.3	2.5	1.9	1.0	0.9	1.7	1.2

Continued

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Rural population^a										
Number (millions)										
2000	762	96.6	99.0	18.2	21.1	15.8	0.43	0.20	1,014T	2,957T
2010	846	111.3	107.2	24.1	25.0	17.7	0.47	0.19	1,132T	3,059T
2020	904	124.2	111.9	30.9	28.0	18.7	0.48	0.18	1,218T	3,112T
2030	918	130.2	110.7	36.6	30.0	18.4	0.46	0.17	1,244T	3,106T
2040	884	128.3	103.9	40.8	30.4	17.6	0.44	0.15	1,206T	3,030T
2050	817	120.9	93.0	43.1	29.4	16.2	0.41	0.14	1,120T	2,869T
Annual growth rate (%)										
2000-10	1.0	1.4	0.8	2.9	1.7	1.2	1.1	-0.4	1.1	0.3
2010-20	0.7	1.1	0.4	2.5	1.2	0.5	0.1	-0.7	0.7	0.2
2020-30	0.2	0.5	-0.1	1.7	0.7	-0.1	-0.3	-0.6	0.2	0.0
2030-40	-0.4	-0.1	-0.6	1.1	0.1	-0.5	-0.5	-0.7	-0.3	-0.2
2040-50	-0.8	-0.6	-1.1	0.6	-0.3	-0.8	-0.8	-1.0	-0.7	-0.5

Note: a: The values shown are mid-year estimates for 2000 and 2010 and projections for 2020, 2030, 2040 and 2050.

Source: Rows 1-3: UNPD 2014 and MHHDC staff computations.

3. Urbanization and Slum Population

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Level of urbanization^a										
Percentage of population living in urban areas										
2000	27.7	33.1	23.6	20.6	13.4	15.7	25.4	27.7	27.3	40.1
2010	30.9	35.9	27.9	23.2	16.7	15.0	34.8	40.0	30.6	46.0
2020	34.8	39.5	33.1	26.6	20.3	16.4	42.2	50.3	34.5	51.3
2030	39.8	44.4	39.1	31.2	24.8	20.1	48.3	56.7	39.5	55.8
2040	45.6	50.2	45.6	37.1	30.4	24.9	52.9	61.2	45.4	60.0
2050	51.7	56.0	52.2	43.4	36.7	30.3	57.3	65.6	51.5	64.1
Annual rate of change (%)										
2000-10	1.1	0.8	1.7	1.2	2.2	-0.4	3.2	3.7	1.1	1.4
2010-20	1.2	1.0	1.7	1.4	2.0	0.9	2.0	2.3	1.2	1.1
2020-30	1.3	1.2	1.7	1.6	2.0	2.1	1.3	1.2	1.4	0.9
2030-40	1.4	1.2	1.5	1.7	2.0	2.1	0.9	0.8	1.4	0.7
2040-50	1.3	1.1	1.4	1.6	1.9	2.0	0.8	0.7	1.3	0.7
Urban slum population										
Number (millions)										
1990	121.0	18.1	20.0	...	1.2	...	...	...	160.3T	650.4T
1995	122.2	20.7	23.5	...	1.6	...	...	...	168.0T	711.8T
2000	119.7	23.9	25.8	...	2.1	...	...	...	171.5T	759.9T
2005	112.9	27.2	27.8	...	2.6	...	...	...	170.5T	793.7T
2007	109.1	28.5	27.8	...	2.8	...	...	...	168.2T	803.3T
2009	104.7	30.0	27.5	...	3.1	...	...	...	165.3T	820.0T ^b
Percentage of urban population										
1990	54.9	51.0	87.3	...	70.6	...	...	...	58.0	46.2
1995	48.2	49.8	84.7	...	67.3	...	...	...	52.3	42.9
2000	41.5	48.7	77.8	...	64.0	...	...	...	46.2	39.4
2005	34.8	47.5	70.8	...	60.7	...	...	...	40.2	35.6
2007	32.1	47.0	66.2	...	59.4	...	...	...	37.5	34.3
2009	29.4	46.6	61.6	...	58.1	...	...	...	34.9	32.6 ^a

Continued

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Distribution of urban households by type of residence 2000-05^c										
Area with 25 % or less slum households,										
non-slum	14.9	15.3	31.5	...	62.0	...	...	...	17.4	...
slum	3.3	5.1	0.7	...	7.0	...	...	...	3.3	...
Area with 26-50 % of slum households,										
non-slum	54.4	19.5	23.8	...	14.6	...	...	...	46.9	...
slum	36.8	5.8	2.8	...	8.9	...	...	...	29.6	...
Area with 51-75 % of slum households,										
non-slum	28.1	46.7	28.2	...	14.2	...	...	...	29.9	...
slum	43.3	36.7	7.3	...	17.5	...	...	...	38.6	...
Area with 75+ % of slum households,										
non-slum	2.6	18.5	16.4	...	9.2	...	...	...	5.8	...
slum	16.5	52.4	89.2	...	66.7	...	...	...	28.4	...

Notes: a: The values shown are mid-year estimates for 2000 and 2010 and projections for 2020, 2030, 2040 and 2050. b: Data refer to 2010. c: Data refer to most recent year available.

Sources: Row 1: UNPD 2014 and MHHDC staff computations; Row 2: UN 2013 and UN-Habitat 2012b; Row 3: UN-Habitat 2010b.

4. Urban Agglomerations

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Population in cities with population of 10 million or more^a										
Number of urban agglomerations										
2010	3	1	1	...	...	...	...	...	5T	17T
2025	6	2	1	...	...	...	...	...	9T	29T
Percentage of urban population										51.3
2010	15	22	36	...	...	...	...	...	18	10
2025	21	34	36	...	...	...	...	...	24	14
Population (thousands)										
2010	55,640	13,500	14,930	...	...	...	...	...	84,070T	248,787T
2025	115,867	31,381	22,906	...	...	...	...	...	170,144T	493,626T
Population in cities with population of 5 to 10 million^a										
Number of urban agglomerations										
2010	4	1	1	0	...	...	...	...	6T	30T
2025	3	0	1	1	...	...	...	...	5T	46T
Percentage of urban population										
2010	8	12	12	0	...	...	...	...	9	8
2025	5	0	13	37	...	...	...	...	6	9
Population (thousands)										
2010	30,585	7,352	5,069	0	...	...	...	...	43,006T	213,279T
2025	24,617	0	8,032	5,126	...	...	...	...	37,774T	320,579T
Population in cities with population of 1 to 5 million^a										
Number of urban agglomerations										
2010	36	6	1	1	0	...	...	...	44T	284T
2025	54	10	2	0	1	...	...	...	67T	454T
Percentage of urban population										
2010	17	19	4	42	0	...	...	...	16	21
2025	20	25	7	0	21	...	...	...	19	25
Population (thousands)										
2010	63,001	11,600	1,723	3,052	0	...	...	...	79,376T	552,767T
2025	105,794	23,349	4,298	0	1,787	...	...	...	135,228T	898,694T

Continued

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Developing countries
Population in cities with population of 500,000 to 1 million^a										
Number of urban agglomerations										
2010	46	5	1	0	1	1	...	...	54T	386T
2025	75	9	8	4	0	1	...	...	97T	583T
Percentage of urban population										
2010	9	6	2	0	20	22	...	...	8	10
2025	10	7	8	23	0	23	...	...	9	11
Population (thousands)										
2010	32,243	3,673	900	0	974	687	...	...	38,477T	268,445T
2025	52,023	6,319	5,035	3,087	0	941	...	...	67,405T	404,554T
Population in cities with population of fewer than 500,000^a										
Percentage of urban population										
2010	52	42	45	58	80	78	100	100	51	51
2025	45	34	36	40	79	77	100	100	44	41
Population (thousands)										
2010	197,306	26,165	18,855	4,248	4,016	2,450	253	126	253,419T	1,318,049T
2025	243,901	31,219	22,844	5,472	6,655	3,169	394	201	313,854T	1,482,062T
Population of capital cities, 2011										
City name	Delhi	Islama- bad	Dhaka	Kabul	Kath- mandu	Colombo	Thim- phu	Malé	...	...
Population (thousands)	22,654	919	15,391	3,097	1,015	693	99	132	44,000T	...
Percentage of urban population	5.8	1.4	36.0	40.7	19.6	21.8	37.8	100.0	9.3	...
Percentage of total population	1.8	0.5	10.2	9.6	3.3	3.3	13.5	41.2	2.6	...
Population in the largest city, 2012										
Population (thousands)	22,968	13,770	15,432	4,066	1,136	681	...	120	58,174T	...
Percentage of urban population	5.9	21.0	34.5	57.1	23.9	22.1	...	97.1	12.0	...
Percentage of total population	1.9	7.7	10.0	13.6	4.1	3.3	...	37.6	4.0	...

Note: a: The values shown are mid-year estimates for 2010 and projections for 2025.

Sources: Rows 1-5: UNPD 2014 and MHHDC staff computations; Row 6: UN-Habitat 2013b; Row 7 World Bank 2013h and MHHDC staff computations.

5. Housing

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Improved drinking water coverage (%)										
Urban										
2000	92	96	86	36	94	95	99	100	91	94
2011	96	96	85	85	91	99	100	100	95	95
Rural										
2000	76	85	77	18	75	76	82	93	76	69
2011	89	89	82	53	87	92	96	98	88	79
Total										
2000	81	88	79	22	77	79	86	95	81	79
2011	92	91	83	61	88	93	97	99	90	87
Household connection to improved drinking water (%)										
Urban										
2000	49	57	27	10	46	53	81	67	47	72
2011	51	58	31	27	49	67	81	99	50	74
Rural										
2000	10	15	0	0	8	15	45	0	9	19
2011	14	23	1	4	14	23	44	1	14	24
Total										
2000	21	29	7	2	13	21	54	19	20	40
2011	25	36	10	9	19	29	57	41	24	47
Improved sanitation coverage (%)										
Urban										
2000	54	72	55	32	43	80	66	98	56	69
2011	60	72	55	46	50	83	74	97	61	74
Rural										
2000	14	20	42	21	17	78	30	72	18	32
2011	24	34	55	23	32	93	29	98	29	43
Total										
2000	25	37	45	23	21	79	39	79	29	47
2011	35	47	55	28	35	91	45	98	39	57
Proportion of urban population with durable housing										
2006	81	87	46	...	72	...	...	...	78	...
Proportion of urban population with sufficient living area										
2006	63	46	68	...	74	...	...	...	62	...

Sources: Rows 1-3: UNICEF and WHO 2013; Rows 4-5: UN-Habitat 2013c.

6. Socioeconomic Disparities and Crimes

	India	Pakistan	Bangladesh	Afghanistan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Developing countries
Net enrolment in primary education, male, 2004-06^a										
Urban	80.1	78.1	79.0	...	93.5	...	...	...	80.0	...
Rural	75.3	66.4	81.5	...	89.1	...	...	...	75.2	...
Non-slum	86.5	83.4	92.5	...	98.5	...	...	...	87.0	...
Slum	77.7	76.9	77.7	...	91.6	...	...	...	77.9	...
Total	76.5	69.7	81.0	...	89.7	...	...	...	76.4	...
Net enrolment in primary education, female, 2004-06^a										
Urban	80.5	76.4	80.9	...	89.4	...	...	...	80.2	...
Rural	71.5	56.2	85.3	...	83.3	...	...	...	71.4	...
Non-slum	86.5	87.1	78.4	...	97.7	...	...	...	86.0	...
Slum	78.4	73.7	81.1	...	85.8	...	...	...	78.3	...
Total	73.8	62.2	84.4	...	84.0	...	...	...	73.8	...
Literacy rate, 1999										
Urban	62.2	50.6 ^b	62.2	...	...	...	...	...	60.9	...
Rural	27.6	11.0 ^b	41.7	...	...	...	...	...	27.2	...
Non-slum	73.0	58.8 ^b	89.8	...	...	...	...	...	73.1	...
Slum	45.6	28.2 ^b	56.8	...	...	...	...	...	44.8	...
Percentage of malnourished children under-five, 2005-07^a										
Urban	34.3	40.4 ^b	30.6	...	29.0	...	...	...	34.4	...
Rural	45.2	54.5 ^b	37.4	...	44.6	...	...	...	45.3	...
Non-slum	21.0	37.2 ^b	11.2	...	15.6	...	...	...	21.5	...
Slum	39.5	50.7 ^b	37.2	...	34.8	...	...	...	40.3	...
Total	42.5	49.6 ^b	36.0	...	42.7	...	...	...	42.6	...
Percentage of children with diarrhoea, 2005-07^a										
Urban	8.9	22.1	10.2	...	11.5	...	...	...	10.5	...
Rural	9.0	21.8	9.7	...	11.9	...	...	...	10.5	...
Non-slum	8.2	19.7	6.3	...	11.7	...	...	...	9.3	...
Slum	9.1	21.5	11.5	...	11.4	...	...	...	10.7	...
Total	9.0	...	9.8	...	11.9	...	...	...	9.1	...
Percentage of female aged 15-24 years non-employed, 2002-04^a										
Urban	84.5 ^c	84.2 ^b	68.7	...	45.2	...	...	...	82.1	...
Rural	64.4 ^c	82.6 ^b	76.1	...	22.7	...	...	...	66.8	...
Non-slum	88.0 ^c	82.7 ^b	64.6	...	61.0	...	...	...	84.5	...
Slum	80.3 ^c	88.5 ^b	73.5	...	35.1	...	...	...	79.7	...

Continued

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Percentage of female aged 15-24 years in informal employment, 2001-04^a										
Urban	56.9 ^d	84.2 ^b	27.6	...	65.4	...	...	...	56.9	...
Rural	57.5 ^d	79.3 ^b	46.8	...	69.7	...	...	...	58.9	...
Non-slum	57.8 ^d	81.5 ^b	25.1	...	69.0	...	...	...	57.1	...
Slum	56.1 ^d	90.0 ^b	28.7	...	65.2	...	...	...	57.0	...
Police recorded crimes										
Homicide rates, per 100,000 population										
2008-11 ^a	3.5	7.8	2.7	2.4	2.8	...	1.0	1.6	3.8	...
Assault rates, per 100, 000 population										
2006-10 ^a	23.6	...	0.4	...	3.8	108.0 ^e	...	523.7	22.1	...
Robbery rates, per 100, 000 population										
2006-10 ^a	1.9	...	0.6	...	0.5	40.5 ^e	...	194.1	2.4	...
Burglary rates, per 100, 000 population										
2006-10 ^a	7.4	...	2.4	...	0.1	87.4 ^e	...	22.1	7.9	...
Kidnapping rates, per 100, 000 population										
2006-10 ^a	3.1	...	0.8	...	0.9	4.4 ^e	...	0.7	2.9	...
Theft rates, per 100, 000 population										
2006-10 ^a	27.0	...	9.1	...	1.9	134.1 ^e	...	1467.0	26.5	...

Notes: a: Data refer to most recent year available. b: Data refer to 1990. c: Data refer to 1999. d: Data refer to 1998. e: data refer to 2004.

Sources: Rows 1, 2, 4, 6, 7: UN-Habitat 2010b; Rows 3, 5: UN-Habitat 2013c. Row 8: UNODC 2013.

7. Transport Infrastructure

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Developing countries
Roads										
Total network (km)										
2008-10 ^a	4,109,592	262,256	21,269	42,150 ^b	19,875	114,093	6,920	88 ^c	4,576,243T	...
Paved (% of total roads)										
2008-10 ^a	49.5	72.2	9.5	29.3 ^b	53.9	...	40.4	100.0 ^c	47.9	46.9
Passengers carried (million passenger-km)										
2010	...	300,471	...	229	...	21,067 ^d	...	...	321,767T	...
Goods transported (million ton-km)										
2010	...	152,510	...	6,575	...	...	...	...	159,085T	...
Railways										
Total route (km)										
2011	63,974	7,791	2,835	...	...	1,463 ^d	...	...	76,063T	...
Passengers carried (million passenger-km)										
2011	978,508	20,619	7,305	...	...	4,767 ^d	...	...	1,011,199T	...
Goods transported (million ton-km)										
2011	625,723	1,757	710	...	...	...	...	...	628,190T	...
Pump price for fuels										
Diesel fuel (US\$ per litre)										
2012	0.86	1.20	0.76	1.21	1.09	0.93	0.86	1.09	0.90	1.21
Gasoline (US\$ per litre)										
2012	1.25	1.14	1.15	1.28	1.44	1.29	1.19	1.10	1.23	1.30
Road motor vehicles										
Passenger cars (per 1,000 people)										
2009-10 ^a	12	13	2	20	4	20	46	11	11	44
Motor vehicles (per 1,000 people)										
2009-10 ^a	18	18	3	28	...	48	57	28	17	55
Road traffic deaths										
Number										
2007-11 ^a	130,037	5,192	2,872	1,501	1,689	2,483	79	6	143,859T	...
Rate, per 100,000 people										
2007-11 ^a	19	17	12	20	16	14	13	2	18	...

Notes: a: Data refer to most recent year available. b: Data refer to 2006. c: Data refer to 2005. d: Data refer to 2008.

Sources: Rows 1-4: World Bank 2013h and MHHDC staff computations. Row 5: UN-Habitat 2013b.

8. Urban Environment

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Developing countries
Outdoor/urban air pollution attributable deaths and disability adjusted life years (DALYs), overall										
Deaths, 2008,										
total (000)	168,601	45,300	10,144	3,302	675	882	1	26	228,904T	...
per 100,000	14	25	6	12	2	4	0	8	14	...
DALYs, 2004,										
total (000)	13,14,717	335,712	112,353	13,807	9,893	8,437	0	170	1,794,919T	...
per 100,000	118	207	74	58	37	44	0	59	120	...
Outdoor/urban air pollution attributable deaths and disability adjusted life years (DALYs), under-five										
Deaths, 2008,										
total (000)	6,905	5,183	304	1,028	24	3	0	0	13,447T	...
per 100,000	5	22	2	21	1	0	0	1	7	...
DALYs, 2004,										
total (000)	148,385	86,328	21,301	6,091	2,129	67	0	11	264,301T	...
per 100,000	116	383	121	138	58	4	0	42	142	...
Under-five mortality rate by urban wealth quintile, 2005-07^a										
Poorest	85.0	106.5	87.8	...	84.0	...	...	...	87.6	...
Richest	26.5	43.0	29.6	...	17.8	...	...	...	28.5	...
Urban solid waste generation rate per capita (kg per person)										
1995	0.5	...	0.5	...	0.5	0.9	...	...	0.5	...
2025	0.7	...	0.6	...	0.6	1.0	...	...	0.7	...
Urban population at risk from sea level rise, 2000										
Total population in low elevation coastal zone (LECZ) (000)	63,188	4,157	62,524	...	...	2,231	...	291	132,391T	539,908T
Urban population in LECZ (000)	31,515	2,227	15,429	...	...	962	...	6	50,139T	292,738T
Percentage of LECZ urban to total urban	10.5	4.6	50.3	...	...	22.8	...	100.0	12.8	14.4
Percentage of urban population in LECZ	49.9	53.6	24.7	...	...	43.1	...	2.2	37.9	54.2
Natural disasters										
Annual average number of disaster-events										
1993-2003	15	5	10	6	3	2	2	1	43T	...
2003-13	16	6	7	7	3	3	1	...	43T	...
Annual average number of disaster-affected people (thousands)										
1993-2003	70,608	983	6,124	321	121	446	33	10	78,647T	...
2003-13	14,827	4,537	6,978	429	267	741	7	...	27,786T	...
Annual average economic losses from natural disasters (US\$, millions)										
1993-2003	1,904	54	577	2	24	3	2	157	2,722T	...
2003-13	2,166	2,163	489	15	6	183	0	...	5,022T	...

Note: a: Data refer to most recent year available.

Sources: Rows 1-3: WHO 2013 and MHHDC staff computations; Row 4: UN-Habitat 2010c; Row 5: CIESIN 2007; Row 6: CRED 2013 and MHHDC staff computations.

9. Urban Economy

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Value added per worker (2005 US\$ per year), 2010										
Primary	1,154	1,187	398 ^a	...	...	2,015	1,017	...	1,099	...
Secondary	4,089	3,519	1,720 ^a	...	...	6,217	25,363	...	3,844	...
Tertiary	6,775	3,968	1,348 ^a	...	...	7,548	4,794	...	5,966	...
Total	3,318	2,627	948 ^a	...	...	5,238	3,525	...	3,047	...
Ratio of average wages, 2008										
Industry to agriculture	1.5	1.4	...	...	1.5	1.4	...	...	1.5	...
Services to agriculture	2.3	1.8	...	...	2.1	2.0	...	...	2.2	...
Sectoral share of employment and GDP, 2010										
Agriculture, employment	51	45 ^b	48 ^a	...	66 ^c	33	60	12 ^d	51	...
GDP	17	20 ^b	18 ^a	...	36 ^c	12	16	4 ^d	18	...
Industry, employment	22	20 ^b	15 ^a	...	13 ^c	24	9	24 ^d	22	...
GDP	26	26 ^b	29 ^a	...	15 ^c	30	44	19 ^d	26	...
Services, employment	27	35 ^b	37 ^a	...	21 ^c	40	31	60 ^d	27	...
GDP	57	54 ^b	54 ^a	...	49 ^c	58	40	77 ^d	56	...
Share of informal employment in non-agricultural/urban employment, 2004-10^e										
Overall	84	78	74	79	81	62	51	43	82	...
Female	85	76	...	...	...	56	...	...	83	...
Share of unorganized sector in GDP (%)										
1999	23	37	35	...	36	44	29	30	26	...
2007	26	40	37	...	38	47	31	32	29	...
Educational attainment of the labour force (%), 2010										
No education	73	33	53	33	20	43	42	3	35	...
Primary	15	36	27	24	33	27	19	23	24	...
Secondary	10	26	15	35	29	27	32	52	34	...
Tertiary	2	6	5	8	18	2	7	22	8	...
Quality of infrastructure (rank out of 148 countries), 2013-14										
	85	121	132	...	144	73	...	...	...	...
Infrastructural constraints faced by firms in the urban/non-agricultural formal sector, 2006-11										
Percentage of firms identifying electricity as a major constraint	32	75	78	66	76	26	6	...	53	...
Percentage of firms identifying transportation as a major constraint	8	14	6	30	33	10	17	...	18	...
Percentage of firms owning or sharing a generator	41	20	52	71	16	27	16	...	39	...
Firms' value lost due to power outages (% of annual sales)	7	9	11	...	17	3	4	...	7	...

Notes: a: Data refer to 2005. b: Data refer to 2008. c: Data refer to 2001. d: Data refer to 2006. e: Data refer to most recent year available.

Sources: Row 1: World Bank 2012c; Rows 2 and 6: World Bank 2012a. Row 3: World Bank 2013h; Row 4: WEIGO (forthcoming) and World Bank 2012a; Row 5: Schneider *et al.* 2010; Row 7: WEF 2013a; Row 8: World Bank 2012a and 2013c.

Human Development Indicators for South Asia

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- | | |
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|--|---------------------------------|
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|--|---|
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|--|---|
-



Note on Statistical Sources for Human Development Indicators



The human development data presented in these tables have been collected with considerable effort, from various international and national sources. For the most part, standardized international sources have been used, particularly the United Nations (UN) system and the World Bank data bank. The United Nations Development Programme (UNDP) and World Bank offices made their resources available to us for this Report.

Countries in the indicator tables are arranged in descending order according to population size. Data for South Asia is the total (T)/weighted average value of eight countries: India, Pakistan, Bangladesh, Afghanistan, Nepal, Sri Lanka, Bhutan and the Maldives. While most of the data have been taken from international sources, national sources have been used

where international data were not available. Such data have to be used with some caution as their international comparability is still to be tested.

Several limitations remain regarding coverage, consistency, and comparability of data across time and countries. The data series presented here will be refined over time, as more accurate and comparable data become available.

In certain critical areas, reliable data are extremely scarce: for instance, for employment, income distribution, public expenditure on social services, military debt, foreign assistance for human priority areas, and so on. Information regarding the activities of non-governmental organizations (NGOs) in social sectors remains fairly sparse.

1. Basic Human Development Indicators

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Total estimated population (millions)										
2002	1,077	150	137	22	24.1	19.3	0.60	0.28	1,430T	5,079T
2012	1,237	179	155	30	27.5	21.1	0.74	0.34	1,650T	5,831T
2050	1,620	271	202	57	36.5	23.8	0.98	0.50	2,211T	8,248T
Annual population growth rate (%)										
1992-2002	1.8	2.5	2.0	4.9	2.4	0.8	1.3	2.2	1.9	1.6
2002-12	1.4	1.8	1.2	3.0	1.3	0.9	2.2	1.8	1.4	1.4
Life expectancy at birth										
2002	63	64	66	56	63	73	62	72	63	66
2011	66	66	70	60	68	74	67	77	66	69
Adult literacy rate (% aged 15 and above)										
2001	61	50 ^a	47	...	49	91	53 ^a	96 ^b	59	78
2011	63 ^c	55 ^d	58	...	57	91 ^e	...	98 ^c	62	80
Female literacy rate (% aged 15 and above)										
2001	48	35 ^a	41	...	35	89	39 ^a	96 ^b	46	72
2011	51 ^c	40 ^d	53	...	47	90 ^e	...	98 ^c	50	75
Gross combined 1st, 2nd and 3rd level enrolment ratio (%)										
2002	53	37 ^f	51 ^a	46 ^f	63	...	54 ^a	76	51	60
2011	70	44	59	62	77	76	68	...	66	67
Infant mortality rate (per 1,000 live births)										
2002	62	84	59	90	55	13	54	29	64	54
2012	44	69	33	71	34	8	36	9	45	39
GDP growth (%)										
2002	3.8	3.2	4.4	8.4 ^f	0.1	4.0	10.7	6.1	3.8	4.1
2012	3.2	4.0	6.2	14.4	4.9	6.4	9.4	3.4	3.9	5.0
GDP per capita (PPP ^g , constant 2005 international US\$)										
2002	1,838	1,875	1,008	761	959	3,106	3,139	4,711	1,749	3,288
2012	3,341	2,402	1,622	1,367	1,276	5,384	5,774	7,819	3,036	5,517
Human Development Index (HDI)										
2005	0.507	0.485	0.472	0.322	0.429	0.683	...	0.639	0.499	...
2012	0.554	0.515	0.515	0.374	0.463	0.715	0.538	0.688	0.543	...
Gender Inequality Index (GII)										
2005	0.637	0.614	0.586	0.746	0.627	0.446	...	0.419	0.629	...
2012	0.610	0.567	0.518	0.712	0.485	0.402	0.464	0.357	0.594	...

Notes: a: Data refer to 2005. b: Data refer to 2000. c: Data refer to 2006. d: Data refer to 2009. e: Data refer to 2010. f: Data refer to 2003. g: PPP means purchasing power parity.

Sources: Rows 1, 2: UNPD 2013 and MHHDC staff computations; Rows 3, 7: World Bank 2013f; Rows 4-6: World Bank 2013b; Rows 8, 9: World Bank 2013h; Rows 10, 11: UNDP 2013.

Highlights (as evidenced by statistics of 2001-2012)

Population growth rates have declined in all countries of the region over the last decade. It increased slightly in Sri Lanka; however it is still the lowest in the region. By the middle of the 21st century, the growth rate of the population will further decline.

Life expectancy has improved in all countries with the highest rate of increase in Bhutan and the Maldives, and the lowest rate of increase in Sri Lanka and Pakistan.

Literacy rates and *gross combined enrolment* ratios have increased

in all countries with the lowest latest values in Pakistan.

GDP growth is the lowest in India, followed by the Maldives and Pakistan, and the highest in Afghanistan, while *GDP per capita* value is the lowest in all countries of the region compared to the average for developing countries except for Bhutan and the Maldives.

Human Development Index (HDI) value has improved for all countries with the highest rate of improvement in Afghanistan. However, the HDI value is still the lowest in Afghanistan and the highest in Sri Lanka, followed by the Maldives, In-

dia and Bhutan. Moreover, recently only Sri Lanka is in the category of 'high human development', while the Maldives, India and Bhutan are in the category of 'medium human development'. The remaining four countries, Pakistan, Bangladesh, Afghanistan and Nepal are in the category of 'low human development'.

Gender Inequality Index (GII) has gone down in all countries of the region with the highest rate of decline in Nepal followed by the Maldives, Bangladesh and Sri Lanka. Currently, gender inequality is the highest in Afghanistan and the lowest in the Maldives.

2. Education Profile

	India	Pakistan	Bangladesh	Afghanistan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Developing countries
Adult literacy rate (% aged 15 and above)										
2001	61	50 ^a	47	...	49	91	53 ^a	96 ^b	59	78
2011	63 ^c	55 ^d	58	...	57	91 ^e	...	98 ^c	62	80
Male literacy rate (% aged 15 and above)										
2001	73	64 ^a	54	...	63	92	65 ^a	96 ^b	71	84
2011	75 ^c	69 ^d	62	...	71	93 ^e	...	98 ^c	73	86
Female literacy rate (% aged 15 and above)										
2001	48	35 ^a	41	...	35	89	39 ^a	96 ^b	46	72
2011	51 ^c	40 ^d	53	...	47	90 ^e	...	98 ^c	50	75
Youth literacy rate (%)										
2001	76	65 ^a	64	...	70	96	74 ^a	98 ^b	74	85
2011	81 ^c	71 ^d	79	...	82	98 ^e	...	99 ^c	80	88
Gross primary enrolment (%)										
2002	97.0	72.1	98.5 ^a	69.6	125.0	104.8	84.9	129.5	94.7	100.3
2011-12 ^f	112.6	92.9	114.2	97.4	139.3	98.6	112.3	98.3 ^d	110.6	107.8
Net primary enrolment (%)										
2002	80.9	56.2	91.8 ^a	...	84.8 ^g	99.8	72.6 ^a	96.9	79.7	82.0
2011-12 ^f	93.3	72.5	91.5 ^c	...	97.4	94.0	90.6	94.5 ^d	90.9	88.3
Gross secondary enrolment (%)										
2002	48.2	27.8 ^g	50.1	13.2 ^g	44.9	...	45.7 ^a	64.5	45.6	56.0
2011-12 ^f	68.5	36.6	50.8	51.8	65.8	99.1	73.9	...	63.4	66.4
Net secondary enrolment (%)										
2011-12 ^f	...	36.1	45.6	27.0 ^h	59.1	85.4	56.8	49.7 ⁱ	43.2	58.8
Gross combined 1st, 2nd and 3rd level enrolment ratio (%)										
2002	53.4	36.8 ^g	51.0 ^a	46.1 ^g	62.5	...	53.7 ^a	76.3	51.4	59.9
2011	69.8	44.2	59.4	62.4	76.8	76.4	67.6	...	66.1	67.4
Enrolment in technical and vocational education (%)										
2002	0.8	2.3 ^g	1.1	0.5 ^g	1.2	...	1.5 ^a	3.8 ^g	1.0	8.1
2011	0.8 ⁱ	3.6 ^k	3.2	0.8	0.7 ^j	5.9	1.8 ^c	...	1.4	10.0
Pupil teacher ratio (primary level)										
2002	40.7	35.0	47.0 ^a	42.3 ^c	39.9	24.9	31.1 ^a	20.0	40.5	28.6
2011-12 ^f	35.2	41.4	40.2	43.5	27.5	24.1	24.0	12.3	36.2	26.7
Percentage of children reaching grade five (% of grade one students)										
2010-11 ^f	68.5 ^c	61.0	66.2 ^d	...	61.7 ^h	97.3	97.4	90.4	67.7	...
Children not in primary schools (millions)										
2002	17.031	8.799	0.780 ^a	...	0.489 ^g	0.004	0.028 ^a	0.001	27.1T	...
2012	1.387 ⁱ	5.370	0.621 ^c	...	0.082	0.103 ^j	0.008	0.002	7.6T	...

Continued

	India	Pakistan	Bangladesh	Afghanistan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Developing countries
School life expectancy (years), primary to secondary										
2002	8.2	5.6 ^g	8.1 ^a	6.4 ^g	9.4	...	9.3 ^a	12.3	7.9	8.8
2011	10.4	7.2 ^k	9.3	9.0	11.6	12.9	11.9	...	10.0	10.0
primary to tertiary										
2002	8.7	5.8 ^g	8.4 ^a	6.5 ^g	9.7	...	9.6 ^a	12.4	8.4	9.4
2011	11.7	7.7 ^k	10.0	9.3	12.4	13.6	12.4	...	11.1	11.0
Researchers per million inhabitants										
2005-09 ^f	136	162	...	...	59 ⁱ	96	...	...	137	467
R&D expenditures (% of GDP)										
2002	0.7	0.2	...	...	...	0.2 ^m	...	...	0.6	0.7
2010	0.8 ^h	0.3 ^l	...	...	0.3	0.2	...	...	0.7	1.1 ^d
Public expenditure on education (% of GDP)										
2002	3.6 ^g	1.9 ^m	2.3	...	3.2	...	7.1 ^a	5.9 ^a	3.3	3.5
2011	3.2	2.2	2.2 ^d	...	4.7 ^e	2.0	4.7	6.8	3.0	4.3 ^e
Public expenditure on education (% of total government expenditure)										
2002	10.7 ^g	6.4 ^m	15.8	...	13.9	...	17.2 ^a	15.0 ^a	10.8	...
2011	11.0	10.1	14.1 ^d	...	20.2 ^e	12.9	11.5	16.6	11.4	16.2 ^e

Notes: a: Data refer to 2005. b: Data refer to 2000. c: Data refer to 2006. d: Data refer to 2009. e: Data refer to 2010. f: Data refer to most recent year available. g: Data refer to 2003. h: Data refer to 2007. i: Data refer to 2002. j: Data refer to 2008. k: Data refer to 2012. l: Data refer to 2011. m: Data refer to 2004.

Sources: Rows 1-15: World Bank 2013b and MHHDC staff computations; Rows 16-18: World Bank 2013h and MHHDC staff computations.

Highlights (as evidenced by statistics of 2001-2012)

All countries in South Asia have performed well in education indicators.

Literacy rate shows a positive trend in countries of the region over the last 10 years. However, Pakistan has the lowest recent values with the exception of male literacy rate, while the Maldives has the highest recent values.

Enrolment ratios have increased for all countries of the region with few exceptions: primary enrolment ratios

have decreased in Sri Lanka, while technical and vocational enrolment ratios have decreased in Nepal. Like literacy rates, enrolment ratios are also the lowest in Pakistan with the exception of net secondary enrolment which is the lowest in Afghanistan and technical and vocational enrolment which is the lowest in Nepal.

Pupil teacher ratio has deteriorated in Pakistan and Afghanistan.

The percentage of *children reaching grade five* is also the lowest in Pakistan, followed by Nepal.

Over the last 10 years, the number of *out of school children* has decreased in South Asia by about three and a half times due to significant reduction in India.

School life expectancy has increased in all countries of the region, however, it is the lowest in Pakistan and the highest in Sri Lanka in the latest year.

Public expenditure on education has decreased in India, Bangladesh and Bhutan over the last 10 years.

3. Health Profile

	India	Pakistan	Bangladesh	Afghanistan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Developing countries
Population with access to safe water (%)										
2002	83	89	80	29	79	82	88	96	82	80
2011	92	91	83	61	88	93	97	99	90	87
Population with access to sanitation (%)										
2002	27	39	47	24	24	81	40	84	31	49
2011	35	47	55	29	35	91	45	98	39	57
Child immunization rate, one-year-olds fully immunized against measles (%)										
2002	56	63	65	35	71	99	78	97	58	70
2012	74	83	96	68	86	99	95	98	77	83
one-year-olds fully immunized against DPT (%)										
2002	58	68	83	36	72	98	86	98	62	70
2012	72	81	96	71	90	99	97	99	76	82
Physicians (per 1,000 people)										
2004	0.60	0.74	0.26	0.20 ^a	0.21	0.55	0.05	0.92	0.57	1.02 ^b
2010	0.65	0.81	0.36 ^c	0.19	...	0.49	0.02	1.60	0.63	1.04 ^d
Maternal mortality ratio (per 100,000 live births)										
2005	280	310	330	710	250	44	270	94	291	290
2010	200	260	240	460	170	35	180	60	212	240
Contraceptive prevalence rate (% of women aged 15-49)										
2000	46.9	27.6 ^e	53.8	4.9	37.3	70.0	30.7	...	45.0	59.4
2011	54.8 ^f	27.0 ^f	61.2	21.2	49.7	68.4 ^g	65.6 ^h	34.7 ^d	51.9	...
People with HIV/AIDS, people living with HIV/AIDS (adults and children) (thousands)										
2002	2,400	12.0	4.3	1.8	57.0	2.1	0.5	0.1	2,477.8T	...
2012	2,100	87.0	8.0	4.3	49.0	3.0	1.1	0.1	2,252.5T	...
people with HIV/AIDS adults (% aged 15-49)										
2002	0.4	0.1	0.1	0.1	0.5	0.1	0.1	0.1	0.3	...
2012	0.3	0.1	0.1	0.1	0.3	0.1	0.2	0.1	0.3	1.2
Public expenditure on health (% of GDP)										
2002	1.0	0.9	1.2	0.4	1.6	1.7	7.0	3.0	1.0	2.3
2011	1.2	0.7	1.4	1.5	2.1	1.5	3.4	3.8	1.2	2.9
Public expenditure on health (% total government expenditure)										
2002	6.3	3.0	8.2	1.7	9.7	6.7	17.1	10.2	6.1	8.4
2011	8.1	3.6	8.9	3.3	9.6	7.2	7.9	9.3	7.6	...

Notes: a: Data refer to 2005. b: Data refer to 2000. c: Data refer to 2011. d: Data refer to 2009. e: Data refer to 2001. f: Data refer to 2008. g: Data refer to 2007. h: Data refer to 2010.

Sources: Rows 1-7: World Bank 2013f and MHHDC staff computations; Rows 8, 9: World Bank 2013h and MHHDC staff computations.

Highlights (as evidenced by statistics of 2000-2012)

Population with access to *safe water* and improved *sanitation*, *child immunization rate* and *maternal mortality rate* have improved in all countries of

South Asia, with significant improvements in Afghanistan. However, *contraceptive prevalence rate*; *people with HIV/AIDS*; and *public expenditure on health* have deteriorated in most of the countries in the region over the last decade. The highest decrease in

contraceptive prevalence rate is in the Maldives. Population with HIV/AIDS has increased at the highest rate in Pakistan. Public expenditure on health has decreased the most in Afghanistan.

4. Human Deprivation Profile

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Population below income poverty line (%), . Population below US\$1.25 a day (PPP) (%), number (millions)										
2005	469.3	35.7	72.2	...	13.0 ^a	2.7 ^b	0.2 ^a	0.004 ^c	593.2T	1,329.5T
2010	394.0	35.1 ^d	65.4	...	6.7	0.9	0.012 ^c	...	502.0T	1,169.1T
% of total population										
2005	41.6	22.6	50.5	...	53.1 ^a	14.0 ^b	26.2 ^a	1.5 ^c	40.3	25.1
2010	32.7	21.0 ^d	43.3	...	24.8	4.1	1.7 ^c	...	31.9	20.6
. Population below US\$2 a day (PPP) (%), number (millions)										
2005	852.3	95.3	115.0	...	19.0 ^a	7.7 ^b	0.3 ^a	0.036 ^c	1,089.5T	2,484.1T
2010	829.0	100.5 ^d	115.7	...	15.4	5.0	0.093 ^c	...	1,065.6T	2,308.1T
% of total population										
2005	75.6	60.3	80.3	...	77.3 ^a	39.7 ^b	49.5 ^a	12.2 ^c	74.0	46.9
2010	68.8	60.2 ^d	76.5	...	57.3	23.9	12.6 ^c	...	67.8	40.7
. Population below national poverty line (%), number (millions)										
2005	419.3	37.8	57.3	...	...	4.4 ^b	...	...	518.7T	...
2010	270.8 ^e	35.9 ^f	47.6	9.7 ^d	6.8	1.8	0.1 ^c	...	372.8T	...
% of total population										
2005	37.2	23.9	40.0	...	...	22.7 ^b	...	...	35.8	...
2010	21.9 ^e	22.3 ^f	31.5	36.0 ^d	25.2	8.9	12.0 ^c	...	23.0	...
Population without access to safe water, number (millions)										
2002	186	16.6	27.3	15.7	5.0	3.5	0.07	0.01	254T	994T
2011	103	15.2	25.7	11.5	3.4	1.5	0.02	0.00	160T	775T
% of total population										
2002	17	11	20	71	21	18	13	4	18	20
2011	8	9	17	39	12	7	3	1	10	13
Population without access to sanitation, number (millions)										
2002	784	90.7	72.5	16.9	18.4	3.7	0.36	0.05	986T	2,587T
2011	793	92.7	69.2	20.8	17.5	1.9	0.40	0.01	995T	2,486T
% of total population										
2002	73	61	53	76	76	19	60	17	69	51
2011	65	53	45	72	65	9	55	2	61	43

Continued

	India	Pakistan	Bangladesh	Afghanistan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Developing countries
Illiterate adults, number (millions)										
2001	274.1	49.1 ^g	43.8	...	7.6	1.3	0.21 ^g	0.006 ^h	376T	775T
2011	287.4 ^f	49.5 ⁱ	44.1	...	8.1	1.4 ^j	...	0.003 ^f	391T	766T
% of total adult population										
2001	39.0	50.1 ^g	52.5	...	51.4	9.3	47.2 ^g	3.7 ^h	41.4	22.2
2011	37.2 ^f	45.1 ⁱ	42.3	...	42.6	8.8 ^j	...	1.6 ^f	38.3	19.8
Illiterate female adults, number (millions)										
2001	177.3	31.1 ^g	24.1	...	4.9	0.8	0.12 ^g	0.003 ^h	238T	495T
2011	187.0 ^f	32.1 ⁱ	24.2	...	5.4	0.8 ^j	...	0.002 ^f	249T	489T
% of total adult female population										
2001	52.2	64.6 ^g	59.2	...	65.1	10.9	61.3 ^g	3.6 ^h	53.9	28.4
2011	49.2 ^f	59.7 ⁱ	46.6	...	53.3	10.0 ^j	...	1.6 ^f	49.6	25.2
Malnourished children (weight for age) (% of children under age-five)										
2009-12 ^k	43.5 ^f	30.9	36.8	32.9 ^c	29.1	21.6	12.8	17.8	40.7	17.0
Under-five mortality rate (per 1,000 live births)										
2002	85	107	80	128	73	16	72	35	86	78
2012	56	86	41	99	42	10	45	11	58	53
People with HIV/AIDS adults (% aged 15-49)										
2002	0.4	0.1	0.1	0.1	0.5	0.1	0.1	0.1	0.3	...
2012	0.3	0.1	0.1	0.1	0.3	0.1	0.2	0.1	0.3	1.2

Notes: a: Data refer to 2003. b: Data refer to 2002. c: Data refer to 2004. d: Data refer to 2008. e: Data refer to 2012. f: Data refer to 2006. g: Data refer to 2005. h: Data refer to 2000. i: Data refer to 2009. j: Data refer to 2010. k: Data refer to most recent year available.

Sources: Row 1: UNPD 2013, World Bank 2013h and MHHDC staff computations; Rows 2, 3: UNPD 2013, World Bank 2013f and MHHDC staff computations; Rows 4, 5: World Bank 2013b and MHHDC staff computations; Rows 6-8: World Bank 2013f.

Highlights (as evidenced by statistics of 2001-2012)

During the last one decade, the population living *below US\$1.25 a day*, *US\$2 a day* and *national poverty line* for each country has decreased in most of the countries in the region, with the highest rate of decline in Bhutan and Sri Lanka. However, it has gone up in Bangladesh

and Afghanistan under the criteria of US\$2 a day and national poverty line.

The absolute number of people without access to *safe water* has decreased in all countries of the region, while those without access to *sanitation* have increased in India, Pakistan, Afghanistan and Bhutan.

The number of *illiterate* adults, both male and female, has decreased in

the Maldives only.

Under-five mortality rate has decreased in all countries of the region over the last 10 years with the highest rate of decrease in the Maldives followed by Bangladesh and the lowest rate of decrease in Pakistan.

5. Gender Disparities Profile

	India	Pakistan	Bangladesh	Afghanistan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Developing countries
Female population, number (millions)										
2002	519	72	66	10.9	12.2	9.7	0.29	0.14	691T	2,498T
2012	597	87	76	14.7	14.1	10.8	0.34	0.17	801T	2,869T
% of male										
2002	93	94	94	96	102	101	92	97	93	97
2012	93	95	97	97	106	104	86	99	94	97
Adult female literacy (% of male)										
2001	65	55 ^a	76	...	56	97	59 ^a	100 ^b	65	85
2011	68 ^c	59 ^d	86	...	66	97 ^e	...	100 ^c	69	87
Youth literacy rate (% of male)										
2001	80	69 ^a	90	...	75	101	85 ^a	100 ^b	80	92
2011	84 ^c	78 ^d	104	...	87	101 ^c	...	100 ^c	86	93
Female primary school gross enrolment (% of male)										
2002	87	68	105 ^a	45	85	99	91	99	86	92
2011-12 ^f	102	87	106	71	108	98	102	97 ^d	101	97
Female primary school net enrolment (% of male)										
2002	87	68	106 ^a	...	87 ^s	100	100 ^a	101	87	93
2011-12 ^f	99 ^h	87	104 ^c	...	100	100	103	99 ^d	98	98
Female 1st, 2nd and 3rd level gross enrolment ratio (% of male)										
2002	81	75 ^s	103 ^a	53 ^s	75	...	98 ^a	101	82	91
2011	94	82	105	65	99	104	101	...	93	97
Female life expectancy (% of male)										
2002	104	102	101	104	103	111	100	103	104	105
2011	105	103	102	104	103	109	101	103	105	106
Female economic activity rate (aged 15+) (% of male)										
2002	42	19	64	17	78	47	74	58	42	68
2012	36	29	68	20	86	46	86	73	39	66
Female professional and technical workers (% of total)										
2006	...	26	22	...	20	48	...	...	25	...
Seats in the Parliament (Lower House) held by women (% of total)										
2002	8.8	21.1	2.0	27.3 ^a	5.9	4.4	9.3	6.0	9.6	13.7
2013	11.0	20.7	19.7	27.7	33.2	5.8	6.4	6.5	13.5	20.5
Women in ministerial level positions (% of total)										
2005	3.4	5.6	8.3	10.0	7.4	10.3	0.0	11.8	4.4	13.1
2012	9.8	10.0	14.3	12.0	15.4	5.9 ^e	0.0	21.4	10.3	15.7

Continued

	India	Pakistan	Bangladesh	Afghanistan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Developing countries
Female legislators, senior officials and managers (% of total)										
2012	14.4	3.0 ^h	23.4 ^g	...	13.8 ⁱ	26.3	26.7 ^j	14.3 ^c	14.2	...
Gender Inequality Index (GII)										
2005	0.637	0.614	0.586	0.746	0.627	0.446	...	0.419	0.629	...
2012	0.610	0.567	0.518	0.712	0.485	0.402	0.464	0.357	0.594	...
Female unemployment rate (%)										
2000-01 ^f	4.2	15.8	3.3	...	10.7	11.4	3.2	2.7	5.5	...
2012	4.0	8.7 ^h	7.4 ^d	9.5 ^a	2.4 ^h	6.2	2.2	23.8 ^c	4.9	...

Notes: a: Data refer to 2005. b: Data refer to 2000. c: Data refer to 2006. d: Data refer to 2009. e: Data refer to 2010. f: Data refer to most recent year available. g: Data refer to 2003. h: Data refer to 2008. i: Data refer to 2002. j: Data refer to 2011.

Sources: Row 1: UNPD 2013 and MHHDC staff computations; Rows 2-6: World Bank 2013b and d and MHHDC staff computations; Rows 7-12, 14: World Bank 2013f. Row 13: UNDP 2013.

Highlights (as evidenced by statistics of 2001-2012)

The *female population* has increased in all countries of the region during the last 10 years with the highest rate in Afghanistan and the lowest rate in Sri Lanka. The ratio of *female to male population* has also improved, but it is still less than 100 in most of the countries.

Gender gaps in terms of *literacy rate* and *enrolment ratios* have decreased

in all South Asian countries over the last decade. However, gender gaps in primary school enrolment have decreased slightly in Sri Lanka and the Maldives.

Female economic activity rate as a percentage of male has increased in Pakistan, Bangladesh, Afghanistan, Nepal, Bhutan and the Maldives, however, it is still the lowest in Afghanistan and Pakistan.

The share of *female legislators, senior officials and managers* and with

ministerial level positions is the lowest in Pakistan.

Gender Inequality Index (GII) shows the highest inequality in Afghanistan, India and Pakistan, and the lowest in the Maldives.

Female unemployment rate has decreased in all countries of South Asia except Bangladesh in which it has increased.

6. Child Survival and Development Profile

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Population under-18, number (millions)										
2002	414	72	65	11	11.5	5.8	1.07	0.16	581T	1,917T
2011	448	74	56	17	12.9	6.2	0.26	0.10	614T	...
% of total population										
2002	39	48	45	50	47	31	49	50	41	38
2011	36	42	37	53	42	29	35	32	37	...
Population under-five, number (millions)										
2002	120	23	19	4	3.6	1.5	0.34	0.05	172T	551T
2011	129	22	14	6	3.5	1.9	0.07	0.03	176T	...
% of total population										
2002	11	15	13	17	15	8	15	16	12	11
2011	10	12	10	18	11	9	10	8	11	...
Infant mortality rate (per 1,000 live births)										
2002	62	84	59	90	55	13	54	29	64	54
2012	44	69	33	71	34	8	36	9	45	39
Under-five mortality rate (per 1,000 live births)										
2002	85	107	80	128	73	16	72	35	86	78
2012	56	86	41	99	42	10	45	11	58	53
One-year-olds fully immunized against tuberculosis (%)										
2002	75	82	95	46	85	99	83	99	78	80
2012	87	87	95	75	96	99	95	99	88	89
One-year-olds fully immunized against measles (%)										
2002	56	63	65	35	71	99	78	97	58	70
2012	74	83	96	68	86	99	95	98	77	83
One-year-olds fully immunized against polio (%)										
2002	57	71	83	36	72	98	89	98	61	72
2012	70	75	96	71	90	99	97	99	74	83
Births attended by trained health personnel (%)										
2000-01 ^a	43	23	12	12	12	96	24	70	37	59
2009-11 ^a	52 ^b	43	32	39	36	99 ^c	65	95	49	64
Low birth weight infants (%)										
2006-11 ^a	28	32	22	...	18	17	10	22 ^d	27	15 ^e
Children in the labour force (% aged group 5-14)										
2002-11 ^a	12	...	13	10	34	...	3	...	12	...

Notes: a: Data refer to most recent year available. b: Data refer to 2008. c: Data refer to 2007. d: Data refer to 2001. e: Data refer to 2004.

Sources: Rows 1, 2: UNICEF 2003 and 2013 and MHHDC staff computations; Rows 3-9: World Bank 2013f; Row 10: UNICEF 2013.

Highlights (as evidenced by statistics of 2000-2012)

The *population under-five* has increased in India, Afghanistan and Sri Lanka, while its share in total population has increased in Afghanistan and Sri Lanka. Similarly, the number of *people*

under-18 has decreased in Bangladesh, Bhutan and the Maldives, while its share in total population has decreased in all countries of the region except in Afghanistan.

Infant and under-five *mortality rates* have also decreased in all countries with the highest rate of decline in the

Maldives, followed by Bangladesh.

Child *immunization* rates have improved in all countries of the region. Despite the massive improvement, child immunization is the lowest in Afghanistan, while it is the highest in Sri Lanka.

7. Profile of Military Spending

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Defence expenditure (at 2011 prices) (US\$ millions)										
2002	28,528	5,325	896	205 ^a	178	1,157	...	...	36,289T	...
2012	48,255	6,630	1,514	770	261 ^b	1,543	...	...	58,973T	...
Defence expenditure annual increase (%)										
1992-2002	5.4	1.0	4.0	...	8.4	4.2	...	...	4.6	...
2002-12	5.4	2.2	5.4	14.1 ^c	3.9 ^d	2.9	...	...	5.0	...
Defence expenditure (% of GDP)										
2002	2.8	4.2	1.2	2.1 ^a	1.4	3.3	...	...	2.8	2.0
2012	2.4	3.1	1.3	3.6	1.4 ^b	2.4	...	...	2.4	1.8
Defence expenditure (% of central government expenditure)										
2002	17.9	24.9	13.8	8.7 ^e	12.3 ^f	15.1	...	...	18.0	14.5
2011	16.8	16.7 ^g	12.7	8.1	8.9	16.2	...	...	14.9	11.2
Defence expenditure per capita (at 2011 prices) (US\$)										
2002	26.5	35.6	6.5	8.9 ^a	7.4	60.1	...	...	25.4	...
2012	39.0	37.0	9.8	25.8	9.6 ^b	73.1	...	...	35.8	...
Armed forces personnel, number (thousands)										
2002	2,388	909	200	120	91	247	...	...	3,954T	20,555T
2011	2,647	946	221	340	158	223	...	...	4,535T	20,919T
% of total labour force										
2002	0.6	2.0	0.3	2.2	0.7	3.1	...	...	0.7	0.9
2011	0.6	1.5	0.3	4.6	1.1	2.6	...	...	0.7	0.8
Arms imports (at 1990 prices) (US\$ million)										
2002	1,946	539	41	34	9	45	0.5 ^f	15 ^e	2,630T	10,556T
2012	4,764	1,244	325	576	3 ^b	21 ^b	...	4 ^h	6,937T	17,743T
Global Militarization Index (GMI) ⁱ , 2002 (ranking out of 144 countries)										
	85	36	127	87 ^j	112	44	...	...	...	...
2012 (ranking out of 150 countries)										
	74	47	123	58	86	36	...	...	...	...

Notes: a: Data refer to 2003. b: Data refer to 2011. c: Data refer to 2003-12. d: Data refer to 2002-11. e: Data refer to 2006. f: Data refer to 2004. g: Data refer to 2012. h: Data refer to 2010. i: The GMI represents the relative weight and importance of the military apparatus of a state in relation to society as a whole. Militarization is defined, in a narrow sense, as the resources (expenditure, personnel, heavy weapons) available to a state's armed forces. For further information please see www.bicc.de. j: Data refer to 2003 and rank is out of 147 countries.

Sources: Rows 1, 2: SIPRI 2013 and MHHDC staff computations; Rows 3, 4, 6, 7: World Bank 2013h; Row 5: SIPRI 2013, UNPD 2013 and MHHDC staff computations; Row 8: BICC 2013.

Highlights (as evidenced by statistics of 2002-2012)

Defence expenditure as a percentage of GDP and government expenditure has decreased in most countries of the region. However, *defence expenditure per capita* and *total defence expenditure* have increased in all countries of the region with the highest rate of increase in Af-

ghanistan. During the last two decades the rate of increase in total defence expenditure increased in Pakistan and Bangladesh, remained unchanged in India, and decreased in Nepal and Sri Lanka.

Armed forces personnel have increased in all countries with the highest rate of increase in Afghanistan; however their share in the total labour force has

decreased in Pakistan.

Arms imports have increased in Afghanistan, Bangladesh, India and Pakistan.

The *Global Militarization Index* (GMI) shows that Sri Lanka is the most militarized country while Bangladesh is the least militarized country in South Asia.

8. Profile of Wealth and Poverty

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Total GDP (US\$ billions)										
2002	524.0	72.3	47.6	4.1	6.1	17.1	0.5	0.8	672.5T	5,787.6T
2012	1,841.7	225.1	116.4	20.5	19.0	59.4	1.8	2.2	2,286.1T	22,769.3T
GDP per capita (PPP ^a , constant 2005 international US\$)										
2002	1,838	1,875	1,008	761	959	3,106	3,139	4,711	1,749	3,288
2012	3,341	2,402	1,622	1,367	1,276	5,384	5,774	7,819	3,036	5,517
GNI per capita (US\$)										
2002	470	500	370	210 ^b	240	860	860	3,160 ^c	461	1,123
2012	1,580	1,260	840	680	700	2,920	2,420	5,750	1,463	3,825
GDP per capita growth (%)										
2002	2.1	1.3	2.7	4.2 ^c	-1.7	3.3	7.5	4.3	2.1	2.6
2012	1.9	2.3	5.0	11.6	3.6	9.2	7.6	1.4	2.6	3.7
Gross capital formation (% of GDP)										
2002	25.0	16.6	23.1	12.3	20.2	22.0	59.9	19.7	23.6	25.2
2012	35.6	14.9	26.5	16.8	34.9	30.3	56.1 ^d	40.4 ^e	32.1	31.7
Gross domestic savings (% of GDP)										
2002	24.0	16.5	18.4	-20.6	9.5	16.0	40.2	24.5	21.6	26.3
2012	27.9	7.0	17.6	-16.8	11.5	17.0	38.0 ^d	1.7 ^e	23.4	30.6
Sectoral composition of GDP (% of GDP), agriculture value added										
2002	20.7	23.4	22.7	38.5	38.6	14.3	26.3	6.9	21.7	12.9
2012	17.4	24.4	17.7	24.6	37.0	11.1	15.9 ^d	4.0	18.6	10.5
industry value added										
2002	26.2	23.9	26.4	23.7	18.1	28.0	38.6	13.9	25.8	35.8
2012	25.8	22.0	28.5	21.8	15.4	31.5	43.9 ^d	21.4	25.4	35.8
services value added										
2002	53.1	52.8	50.9	37.8	43.3	57.7	35.1	79.2	52.5	50.9
2012	56.9	53.6	53.9	53.5	47.6	57.5	40.2 ^d	74.6	56.0	52.6
Trade (% of GDP)										
2002	29.0	30.5	33.3	97.7	46.2	76.3	69.6	114.8	31.6	54.2
2012	55.4	32.6	55.3	44.7	43.4	59.3	87.3 ^d	212.6	52.6	60.4
Tax revenue (% of GDP)										
2002	8.5	10.3	7.7	6.9 ^f	8.6	13.6	9.2	10.3	8.7	11.2
2011	10.4	10.1 ^g	10.0	8.9	13.8 ^g	12.4	9.2 ^h	15.6	10.4	13.1 ⁱ
Exports of goods and services (% of GDP)										
2002	14.0	15.2	14.3	32.4	17.7	34.9	24.9	59.8	14.8	27.6
2012	23.8	12.3	23.2	5.5	10.0	22.8	34.6 ^d	105.8	22.0	29.6

Continued

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Developing countries
Total net official development assistance received, amount (US\$ millions)										
2002	1,758	2,105	906	1,310	343	343	74	27	6,866T	61,475T
2011	3,221	3,509	1,498	6,711	892	611	144	46	16,631T	140,505T
% of GNI										
2002	0.3	2.9	1.8	31.7	5.7	2.0	13.9	3.5	1.4	1.1
2011	0.2	1.6	1.2	37.2	4.7	1.0	8.3	2.5	1.2	0.7
Total (external) debt servicing (% of exports of goods, services and income)										
2002	20.9	23.4	10.2	0.4 ^j	10.4	11.7	2.8 ^f	4.4	19.5	19.5
2012	6.8	14.9	5.4	0.3	10.3	13.3	17.8	3.8	7.5	9.8
Total external debt (US\$ billions)										
2002	105.7	33.8	16.6	1.0 ^f	3.0	9.8	0.4	0.3	170.6T	2,045.4T
2012	379.1	61.9	26.1	2.7	3.8	25.4	1.5	1.0	501.5T	4,829.6T
Total (external) debt servicing (% of GNI)										
2002	3.0	4.0	1.4	0.2 ^f	1.7	4.2	1.2	2.9	2.9	5.7
2012	1.6	2.0	1.2	0.1	1.2	3.1	7.6	4.8	1.6	3.1
Income share (ratio of highest 20% to lowest 20%)										
2005	4.9	4.4	4.8	...	7.8 ^c	7.2 ^k	9.9 ^c	6.8 ^b	4.9	...
2010	5.0	4.2 ⁱ	4.7	4.0 ^j	5.0	5.8	6.8 ^g	...	4.9	...
Population below US\$1.25 a day (PPP) (%)										
2005	41.6	22.6	50.5	...	53.1 ^c	14.0 ^k	26.2 ^c	1.5 ^b	40.3	25.1
2010	32.7	21.0 ^j	43.3	...	24.8	4.1	1.7 ^g	...	31.9	20.6
Population below income poverty line (%), urban population below income poverty line (%)										
2005	25.7	14.9	28.4	...	...	7.9 ^k	...	...	24.6	...
2010	13.7 ^g	13.1 ^f	21.3	29.0 ^j	15.5	5.3	1.8 ^g	...	14.5	...
rural population below income poverty line (%)										
2005	41.8	28.1	43.8	...	...	24.7 ^k	...	...	40.3	...
2010	25.7 ^g	27.0 ^f	35.2	37.5 ^j	27.4	9.4	16.7 ^g	...	26.7	...
Public expenditure on education (% of GDP)										
2002	3.6 ^c	1.9 ^b	2.3	...	3.2	...	7.1 ^c	5.9 ^c	3.3	3.5
2011	3.2	2.2	2.2 ^h	...	4.7 ⁱ	2.0	4.7	6.8	3.0	4.3 ^j
Public expenditure on health (% of GDP)										
2002	1.0	0.9	1.2	0.4	1.6	1.7	7.0	3.0	1.0	2.3
2011	1.2	0.7	1.4	1.5	2.1	1.5	3.4	3.8	1.2	2.9

Notes: a: PPP means purchasing power parity. b: Data refer to 2004. c: Data refer to 2003. d: Data refer to 2011. e: Data refer to 2005. f: Data refer to 2006. g: Data refer to 2012. h: Data refer to 2009. i: Data refer to 2010. j: Data refer to 2008. k: Data refer to 2002.

Sources: Rows 1-10, 15-19: World Bank 2013h and MHHDC staff computations; Row 11: World Bank 2013e and h; Rows 12-14: World Bank 2013e and MHHDC staff computations.

Highlights (as evidenced by statistics of 2002-2012)

GDP has increased in all countries with the highest increase in Afghanistan and the lowest increase in Bangladesh, while, the rate of increase in *GDP* per capita has been the highest in Afghanistan and the lowest in Pakistan during the last decade. The growth rate of *GNI* per capita is the highest in Sri Lanka and the lowest in the Maldives.

Gross capital formation decreased in Pakistan and Bhutan, where-

as, *gross domestic savings* increased in India, Afghanistan, Nepal and Sri Lanka.

With regard to *sectoral shares of GDP*, the share of agriculture has decreased except in Pakistan, while that of services has increased except in Sri Lanka. The share of industry decreased in India, Pakistan, Afghanistan and Nepal and increased in other countries of the region.

Tax to GDP ratio has decreased in Pakistan and Sri Lanka over the last decade.

Total net official development as-

sistance as a percentage of GNI has decreased in all countries except Afghanistan.

External debt in absolute terms is the highest in India. It has gone up in all countries with the highest rates of increase in Bhutan, followed by the Maldives and India and the lowest rates in Nepal, followed by Bangladesh and Pakistan. However, *external debt servicing* as a percentage of exports and *GNI* has decreased in most of the countries.

9. Demographic Profile

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Total population (millions)										
2002	1,077	150	137	22	24.1	19.3	0.60	0.28	1,430T	5,079T
2012	1,237	179	155	30	27.5	21.1	0.74	0.34	1,650T	5,831T
Annual population growth rate (%)										
1992-2002	1.8	2.5	2.0	4.9	2.4	0.8	1.3	2.2	1.9	1.6
2002-12	1.4	1.8	1.2	3.0	1.3	0.9	2.2	1.8	1.4	1.4
Rural population (millions)										
2002	772	99	104	18	20.7	16.3	0.43	0.20	1,030T	3,015T
2012	845	114	110	23	22.7	17.9	0.47	0.20	1,133T	3,125T
Urban population (millions)										
2002	305	50	33	5	3.4	3.0	0.17	0.09	400T	2,064T
2012	392	65	45	7	4.8	3.2	0.27	0.14	517T	2,705T
Annual growth rate of urban population (%)										
1992-2002	2.6	3.3	3.8	6.2	6.3	-0.1	5.7	3.8	2.9	3.0
2002-12	2.5	2.7	2.9	4.3	3.4	0.7	5.0	5.3	2.6	2.7
Crude birth rate (per 1,000 live births)										
2002	25	29	26	48	31	19	26	22	26	23
2011	21	26	21	37	22	18	20	22	22	21
Crude death rate (per 1,000 live births)										
2002	9	8	7	12	8	6	8	5	8	8
2011	8	7	6	8	7	7	7	3	8	8
Total fertility rate										
2002	3.0	4.1	2.9	7.5	3.8	2.3	3.2	2.9	3.2	2.8
2011	2.5	3.3	2.2	5.4	2.5	2.3	2.3	2.3	2.6	2.6
Dependency ratio (dependents to working-age population)										
2002	61	79	67	106	79	48	72	74	64	61
2012	53	63	55	99	68	50	50	52	55	55
Total labour force (millions)										
2002	429	45	62	5	8	8	0.26	0.10	558T	2,262T
2012	484	64	76	8	10	8	0.38	0.16	651T	2,628T
Male labour force (millions)										
2002	307	38	39	5	5	5	0.15	0.06	399T	1,380T
2012	362	50	46	6	5	6	0.22	0.09	475T	1,614T
Female labour force (millions)										
2002	122	7	23	1	4	3	0.10	0.04	159T	882T
2012	122	14	31	1	5	3	0.16	0.07	176T	1,014T
Annual growth in labour force (%)										
1992-2002	2.1	3.1	2.3	4.4	3.1	1.4	3.0	5.1	2.3	2.0
2002-12	1.2	3.5	2.0	3.5	2.0	0.7	4.1	4.8	1.6	1.5
Unemployment rate (%)										
2000-01 ^a	4.3	7.2	3.3	...	8.8	7.7	1.9	2.0	4.6	5.1
2008-12 ^a	3.6	5.0	5.0	8.5 ^b	2.7	4.0	2.1	14.4 ^c	3.9	5.9 ^c

Notes: a: Data refer to most recent year available. b: Data refer to 2005. c: Data refer to 2006.

Sources: Rows 1-5: UNPD 2013 and MHHDC staff computations; Rows 6-8: World Bank 2013f; Rows 9-13: World Bank 2013f and MHHDC staff computations; Row 14: World Bank 2013h.

Highlights (as evidenced by statistics of 2000-2012)

Population figures increased in all countries of the region with the highest *growth rate* in Afghanistan and the lowest growth rate in Sri Lanka. However, the growth rate of the population has decreased over the last two decades due

to a decline in *fertility rates* which is still very high in Afghanistan and Pakistan. There has been more population growth in urban areas and less in rural areas except in Sri Lanka, indicating an increase in urbanization in South Asia.

A decline in the fertility rate and an increase in the proportion of young age population across South Asia

have resulted in a decrease in the *dependency ratio* except in Sri Lanka.

Labour force, including male and female has increased in the region. The average regional growth of the *male labour force* is higher than developing countries while that of the *female labour force* is lower than developing countries.

10. Profile of Food Security and Natural Resources

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Developing countries
Food production net per capita index (2004-2006 = 100)										
2002	92	93	94	106	97	98	74	82	92	...
2011	120	109	123	93	109	113	97	78	119	...
Food exports (% of merchandize exports)										
2002	12.7	10.8	6.8	...	20.6 ^a	21.0	10.6 ^b	61.6	12.2	10.4
2012	10.5	17.1	6.5 ^c	39.1 ^d	18.6 ^d	26.4	8.5 ^d	8.9	11.7	10.2
Food imports (% of merchandize imports)										
2002	5.9	12.0	14.6	...	17.3 ^a	14.2	14.5 ^b	22.6	7.7	7.1
2012	4.0	11.1	22.5 ^c	14.0 ^d	14.9 ^d	11.5	10.9 ^d	21.2	7.1	6.9
Cereal production (thousand metric tons)										
2002	206,637	27,173	39,341	3,737	7,215	2,890	91	0.11	287,085T	...
2012	286,500	36,981	37,283	6,469	9,448	4,076	183	0.18	380,940T	...
Cereal imports (thousand metric tons)										
2002	42	285	2,824	1,378	30	1,293	32	38	5,921T	...
2011	29	126	4,951	2,119	393	1,430	86	50	9,185T	...
Cereal exports (thousand metric tons)										
2002	9,570	3,076	0.6	0.0	6.7	8.4	3.5	0.0	12,665T	...
2011	9,774	7,475	1.2	0.0	5.4	428.0	0.9	0.0	17,684T	...
Forest production [thousands cubic metres (cu. m)], round wood (thousands cu. m)										
2002	319,389	34,194	28,018	3,111	13,988	6,468	4,480	14	409,661T	...
2012	331,436	32,650	27,253	3,454	13,663	5,672	5,078	16	419,222T	...
fuel wood (thousands cu. m)										
2002	300,564	31,515	27,763	1,351	12,728	5,774	4,348	14	384,056T	...
2012	308,244	29,660	26,971	1,694	12,403	5,061	4,950	16	388,998T	...
Crop production index (2004-2006 = 100)										
2002	85	84	91	88	90	94	61	75	86	...
2011	133	112	135	112	124	120	111	83	131	...
Land area (thousand hectares)										
2002	297,319	77,088	13,017	65,223	14,335	6,271	4,008	30	477,291T	...
2011	297,319	77,088	13,017	65,223	14,335	6,271	3,839	30	477,122T	...
Land use, arable land (% of land area)										
2002	53.8	28.0	63.4	11.8	16.4	14.9	2.8	10.0	50.2	...
2011	52.9	26.9	58.6	11.9	16.4	19.1	2.5	10.0	48.8	...
permanent cropped area (% of land area)										
2002	3.2	0.9	3.8	0.1	0.8	15.6	0.5	26.7	3.1	...
2011	4.1	1.1	6.9	0.2	0.8	15.6	0.5	10.0	4.1	...

Continued

	India	Pakistan	Bangladesh	Afghanistan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Developing countries
Irrigated land (% of cropland)										
2002	31.6	66.0	51.3 ^e	4.6	27.4	...	...	...	36.7	...
2011	35.2 ^f	70.2	52.6 ^f	5.4	27.4 ^h	...	...	...	40.0	...
Daily dietary energy consumption (kcal/person/day)										
2002	2,241	2,314	2,359	...	2,269	2,351	...	2,589	2,262	...
2009	2,321	2,423	2,481	...	2,443	2,426	...	2,720	2,351	...
Undernourished people, number (millions)										
2001-03	235	39	22	...	6	6	...	0	308T	932T
2011-13	214	31	25	...	5	5	...	0	279T	827T
% of total population										
2001-03	21.6	26.0	16.2	...	23.5	28.7	...	10.5	21.7	18.4
2011-13	17.0	17.2	16.3	...	16.0	22.8	...	5.4	17.0	14.3

Notes: a: Data refer to 2003. b: Data refer to 2005. c: Data refer to 2007. d: Data refer to 2011. e: Data refer to 2004. f: Data refer to 2010. g: Data refer to 2006. h: Data refer to 2008.

Sources: Rows 1, 4-11: FAO 2013a and MHHDC staff computations; Rows 2, 3: World Bank 2013h; Rows 12, 13: FAO 2013b.

Highlights (as evidenced by statistics of 2002-2012)

Food production has increased in most countries of the region with the highest increase in India. *Food exports* as a percentage of merchandise exports increased in Pakistan and Sri Lanka, while *food imports* increased only in Bangladesh.

Cereal production has increased in all countries except Bangladesh, with

the highest growth rates in Bhutan, the Maldives and Afghanistan respectively. However, *cereal exports* decreased in Bhutan and Nepal, while *cereal imports* increased in all countries except India and Pakistan.

Forest production decreased in Sri Lanka, Pakistan, Bangladesh and Nepal. *Crop production* increased in all countries, with the highest increase in Bhutan and India.

With regard to land use, the

share of arable land decreased in India, Pakistan, Bangladesh and Bhutan, while the share of permanent cropped area decreased in the Maldives only. *Irrigated land as a percentage of cropland* increased in all countries.

Daily dietary energy consumption has increased in all countries of the region. Similarly, the *proportion of undernourished population* and the *number of undernourished people* has improved in all countries except in Bangladesh.

11. Energy and Environment

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Developing countries
Energy use per capita (kilogrammes of oil equivalent)										
2002	444	439	151	...	351	433	284 ^a	855 ^a	413	819
2011	614	482	205	...	383	499	359 ^b	970 ^b	555	1,179
Total electricity production (billion kilowatt hours)										
2002	597.3	75.7	18.7	...	2.1	7.1	...	...	700.9T	5,159.1T
2011	1,052.3	95.3	44.1	...	3.3	11.6	...	...	1,206.6T	10,005.1T
Motor vehicles per kilometre of road										
2010	5 ^c	12	22	11 ^d	8 ^b	...	7 ^e	50 ^f	8	...
Annual average number of disaster-events										
1993-2003	15	5	10	6	3	2	2	1	43	...
2003-13	16	6	7	7	3	3	1	...	43	...
Annual average number of disaster-affected people (thousands)										
1993-2003	70,608	983	6,124	321	121	446	33	10	78,647T	...
2003-13	14,827	4,537	6,978	429	267	741	7	...	27,786T	...
Annual average economic losses from natural disasters (US\$ millions)										
1993-2003	1,904	54	577	2	24	3	2	157	2,722T	...
2003-13	2,166	2,163	489	15	6	183	0	...	5,022T	...

Notes: a: Data refer to 2004. b: Data refer to 2007. c: Data refer to 2008. d: Data refer to 2006. e: Data refer to 2009. f: Data refer to 2005.

Sources: Rows 1-3: World Bank 2013h; Rows 4-6: CRED 2013.

Highlights (as evidenced by statistics of 2002-2013)

Total electricity production has increased in all countries of the region with the highest growth rate in Bangladesh and the lowest in Pakistan.

During the last two decades, annual average number of *disaster-events* has increased in India, Pakistan, Afghanistan and Sri Lanka. Annual average number of *disaster-affected people* has increased in most countries of South Asia with the highest rate of increase in

Pakistan. However, it decreased in Bhutan and India. Similarly, the increase in annual average *economic losses from natural disasters* has been the highest in Sri Lanka, followed by Pakistan and Afghanistan, respectively.

12. Governance

	India	Pakistan	Bangla- desh	Afghani- stan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Devel- oping countries
Average annual rate of inflation (2000=100) (%)										
2002	4.1	3.5	2.8	11.9 ^a	2.9	11.0 ^b	2.5	4.2	4.1	...
2012	10.5	11.0	8.7	8.4	7.4	7.5 ^c	10.9	10.8	10.2	...
Annual growth of food prices (1999-2001=100) (%)										
2002	2.4	2.5	1.6	9.1 ^a	3.7	11.4 ^b	5.7	0.2 ^a	2.6	...
2012	11.0	11.0	7.7	7.8	7.4	4.7 ^c	13.9	19.6 ^d	10.5	...
Annual growth of money supply (%)										
2002	11.9	16.8	13.1	31.5 ^e	4.4	13.4	28.5	21.6	12.7	...
2012	18.3 ^f	17.0	17.7	6.4	22.7	18.3	-1.0	5.0	17.9	...
Total revenue (% of GDP)										
2002	10.9	12.1	10.2	2.9	11.0	16.0	19.5	24.4	10.9	...
2012	9.1	12.8	11.5 ^g	10.4 ^d	15.9	13.0	20.7	27.4	9.9	...
Total expenditure (% of GDP)										
2002	16.8	18.6	14.9	7.7	17.4	23.8	37.5	29.6	16.8	...
2012	14.3	19.2	15.2 ^g	22.0 ^d	20.8	19.4	35.7	41.6	15.2	...
Budget deficit/surplus (% of GDP)										
2002	-5.9	-4.3	-3.7	-1.2	-5.0	-8.2	-4.7	-3.8	-5.5	...
2012	-5.2	-6.6	-3.2 ^g	1.8 ^d	-1.5	-6.4	-1.1	-12.6	-5.0	...
Tax revenue (% of GDP)										
2002	8.5	10.3	7.7	6.9 ^h	8.6	13.6	9.2	10.3	8.7	11.2
2011	10.4	10.1 ⁱ	10.0	8.9	13.8 ⁱ	12.4	9.2 ^j	15.6	10.4	13.1 ^g
Tax revenue by type (% of total taxes),										
taxes on international trade										
2002	20.7	10.4	42.5	47.7 ^h	32.2	14.3	4.4	63.4	22.3	...
2011	16.3	10.6 ⁱ	30.3	40.3	20.5 ⁱ	19.5	3.6 ^j	52.9	17.5	...
taxes on income, profits and capital gains										
2002	38.3	30.8	16.7	18.0 ^h	20.5	17.0	54.0	4.7	34.5	...
2011	56.3	36.8 ⁱ	27.6	28.4	24.2 ⁱ	19.4	58.0 ^j	5.4	49.9	...
taxes on goods and services										
2002	40.8	46.6	35.8	24.3 ^h	42.3	67.6	37.9	31.0	41.0	...
2011	27.4	49.0 ⁱ	38.2	27.1	52.2 ⁱ	50.2	37.9 ^j	33.9	31.5	...
other taxes										
2002	0.2	12.2	5.0	10.1 ^h	5.0	1.1	3.6	0.9	2.2	...
2011	0.1	3.6 ⁱ	3.8	4.2	3.1 ⁱ	11.0	0.5 ^j	7.8	1.1	...

Continued

	India	Pakistan	Bangladesh	Afghanistan	Nepal	Sri Lanka	Bhutan	Maldives	South Asia (weighted average)	Developing countries
Public expenditure per capita (US\$), defence										
2002	13.8	20.4	4.3	4.1 ^e	3.6	30.2	...	...	13.4	23
2012	36.2	39.3	10.1	24.4	9.9 ^d	70.9	...	...	33.9	73
interest payments (on external debt)										
2002	14.3	19.3	5.2	0.5 ^h	4.3	37.5	11.0	78.6	13.9	62.9
2012	24.8	26.5	9.7	0.5	8.1	90.0	171.0	264.6	23.8	114.9
education										
2002	20.1 ^e	12.3 ^k	8.0	...	7.9	...	89.1 ^a	196.1 ^a	17.9	40.2
2011	48.5	27.1	13.4 ^j	...	28.1 ^g	56.6	117.0	442.4	42.8	142.0 ^g
health										
2002	5.0	4.2	4.3	0.7	4.0	14.9	62.8	89.0	4.9	26.5
2011	18.4	8.2	10.0	9.2	15.1	43.5	85.7	245.1	16.7	111.8
Imports of goods and services (% of GDP)										
2002	15.0	15.3	19.0	65.3	28.5	41.4	44.6	55.0	16.8	26.6
2012	31.5	20.3	32.1	39.2	33.4	36.5	52.7 ^d	106.8	30.6	30.8
Net inflow of FDI (US\$ millions)										
2002	5,626	823.0	52.3	50.0	-6.0	196.5	2.4	24.7	6,769T	150,891T
2012	23,996	853.7	1,178.4	94.0	92.0	897.9	9.6	284.0	27,405T	616,899T
Total external debt (% of GNI)										
2002	20	46.5	33.4	13.7 ^h	49.7	58.0	73.0	35.1	25	38
2012	21	25.5	20.6	14.6 ^d	19.5	43.6	87.1	54.5	21	22
Total (external) debt servicing (% of GNI)										
2002	3.0	4.0	1.4	0.2 ^h	1.7	4.2	1.2	2.9	2.9	5.7
2012	1.6	2.0	1.2	0.1	1.2	3.1	7.6	4.8	1.6	3.1

Notes: a: Data refer to 2005. b: Data refer to 2005 and is for capital city only. c: Data refer to capital city only. d: Data refer to 2011. e: Data refer to 2003. f: Data refer to 2007. g: Data refer to 2010. h: Data refer to 2006. i: Data refer to 2012. j: Data refer to 2009. k: Data refer to 2004.

Sources: Rows 1-6: ADB 2013b and c; Rows 7, 8, 9b, 10, 11: World Bank 2013h; Row 9a: SIPRI 2013, UNPD 2013, World Bank 2013h and MHHDC staff computations; Row 9c: UNPD 2013, World Bank 2013b and h and MHHDC staff computations; Row 9d: World Bank 2013f and h and MHHDC staff computations; Rows 12, 13: World Bank 2013e.

Highlights (as evidenced by statistics of 2002-2012)

Over the last decade, *inflation*, both general and food, has increased in most countries of the region with the highest general inflation rate in Pakistan, in recent years. However, food prices have decreased in Afghanistan and Sri Lanka. Similarly, the growth rate of *money supply* has decreased in Afghanistan, Bhutan and the Maldives.

Total revenue as a percentage of GDP increased in all countries except in India and Sri Lanka while *tax revenues*

as a percentage of GDP decreased in Sri Lanka and Pakistan. *Total expenditure* as a percentage of GDP increased in Pakistan, Bangladesh, Afghanistan, Nepal, Bhutan and the Maldives. Overall, the *budget deficit* as a percentage of GDP increased in Pakistan and the Maldives.

Taxes on international trade have decreased in the region with the exception of Sri Lanka and Pakistan. Taxes on goods and services have also decreased in the region except in Nepal, Afghanistan, the Maldives, Bangladesh and Pakistan. Taxes on income, profits and capital gains have increased in

the region with the highest increase in Bangladesh.

Public expenditure per capita on defence, interest payments on external debt, education and health has increased in all countries.

Imports as a percentage of GDP have decreased in Afghanistan and Sri Lanka.

Foreign direct investment has increased in the region with the highest rate of increase in Bangladesh and the lowest in Pakistan.

Glossary for Statistical Profile of Urbanization in South Asia

Assault: Physical attack against the body of another person resulting in serious bodily injury; excluding indecent/sexual assault; threats and slapping/punching. 'Assault' leading to death should also be excluded.

Burglary: Gaining unauthorized access to a part of a building/dwelling or other premises; including by use of force; with the intent to steal goods (breaking and entering). It includes where possible theft from: a house; an apartment or other dwelling place; a factory; a shop or office; a military establishment; or by using false keys.

Durability of housing: A house is considered 'durable' if it is built on a non-hazardous location and has a structure permanent and adequate enough to protect its inhabitants from the extremes of climatic conditions, such as rain, heat, cold and humidity.

Employment by sector: The share of employment in primary, secondary, and tertiary activities, based on the International Standard Industry Classification (ISIC). The primary sector includes agriculture, hunting, forestry, and fishing. The secondary sector includes mining and quarrying (including oil production), manufacturing, construction and public utilities (electricity, gas and water). The tertiary sector includes wholesale and retail trade and restaurants and hotels; transport, storage and communications; financing, insurance, real estate and business services; and community, social and personal services.

Gini index: The extent to which the distribution of income (or in some cases, consumption expenditure) or assets (such as land) among individuals or households within an economy deviates from a perfectly equal distribution. A Gini index of 0 represents perfect equality, while an index of 1 implies absolute inequality.

Gross domestic product (GDP) by sector: The share of GDP in agriculture, industry and services. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes (less subsidies) not included in the valuation of output.

Homicide: Intentional homicides are estimates of unlawful homicides purposely inflicted as a result of domestic disputes, interpersonal violence, violent conflicts over land resources, inter-gang violence over turf or control, and predatory violence and killing by armed groups.

Household connection to improved drinking water: The percentage of households that, within their housing unit, are connected to any of the following types of water supply for drinking: piped water, public tap, borehole or pump, protected well, and protected spring or rainwater.

Improved drinking water coverage: The percentage of people using improved drinking water sources or delivery points. Improved drinking water technologies are more likely to provide safe drinking water than those characterized as unimproved.

Improved sanitation coverage: The percentage of people using improved sanitation facilities. Improved sanitation facilities are more likely to prevent human contact with human excreta than unimproved facilities.

Informal employment: The share of informal employment in non-agricultural employment. It includes employment in informal sector enterprises and informal jobs in formal firms; it excludes agricultural employment.

Kidnapping: It means unlawfully detaining a person/persons against their will (including through the use of force, threat,

fraud or enticement) for the purpose of demanding for their liberation an illicit gain or any other economic gain or other material benefit; or in order to oblige someone to do or not to do something.

Level of urbanization: The percentage of population residing in places classified as urban. Urban and rural settlements are defined in the national context and vary among countries (the definitions of urban are generally national definitions incorporated within the latest census).

Literacy rate: The percentage of people who can—with understanding—read and write a short, simple statement about their everyday life.

National population below national poverty line: The percentage of the country's population living below the national poverty line. National estimates are based on population weighted sub-group estimates from household surveys.

Natural disaster: A situation or event that overwhelms local capacity, necessitating a request to the national or international level for external assistance. Types of natural disasters include: droughts, earthquakes, epidemics, extreme temperatures, floods, insect infestations, mass movements dry, mass movements wet, storms, volcanoes and wildfires.

Net primary school enrolment (%): Enrolment of the official age group of primary level of education expressed as a percentage of the corresponding population.

Outdoor/urban air pollution attributable deaths and disability adjusted life years (DALYs): Outdoor air pollution can be defined as the presence of solids, liquids, or gases in outdoor air in amounts that are injurious or detrimental to human health and/or the environment; or that which unreasonably interferes with the comfortable enjoyment of life and/or property. DALYs are a summary measure of population health that combine (i) the years of life lost (YLL) as a result of premature death and (ii) the years lived with a disease (YLD).

Population density: Mid-year population

divided by land area in square kilometres.

Population in the largest city: The percentage of a country's urban population living in that country's largest metropolitan area.

Population living in coastal zone: The proportion of populations (urban, rural and total) in low elevation coastal zones (LECZ). The zone is derived by selecting all land contiguous with the coast that is 10 metres or less in elevation.

Population, rural: Mid-year estimates and projections (medium variant) of the population residing in human settlements classified as rural.

Population, total: Mid-year population estimates and projections. Population rate of change refers to the average annual percentage change of population during the indicated period.

Population, urban: Mid-year population of areas defined as urban in each country and reported to the United Nations (UN). Because the estimates are based on national definitions of what constitutes a city or metropolitan area, cross-country comparisons should be made with caution.

Poverty headcount ratio at urban/rural poverty line (% of urban/rural population): The percentage of the urban/rural population living below the urban/rural poverty line.

Pump price for fuels: It refers to the pump prices of the most widely sold grade of gasoline and of diesel fuel.

Railways: The length of railway route available for train service, irrespective of the number of parallel tracks. *Passengers carried by railway* are the number of passengers (in millions) transported by rail multiplied by kilometres travelled (m-p-km). *Goods hauled by railway* are the volume of goods transported by railway, measured in metric tons multiplied by kilometres travelled (m-t-km).

Road motor vehicles: They include cars, buses and freight vehicles but not two-

wheelers.

Road traffic deaths: Any person killed immediately or dying within 30 days as a result of a road traffic accident.

Roads: *Total road network* includes motorways, highways and main or national roads, secondary or regional roads and all other roads in a country. *Paved roads* are roads surfaced with crushed stone and hydrocarbon binder or bitumized agents, with concrete or with cobblestones, as a percentage of all of the country's roads measured in length. *Passengers carried by roads* are the number of people (in millions) transported by road multiplied by kilometres travelled (m-p-km). *Goods hauled by road* are the volume of goods transported by road vehicles, measured in millions of metric tons multiplied by kilometres travelled (m-t-km).

Robbery: It means the theft of property from a person; overcoming resistance by force or threat of force. Where possible, it should include muggings (bag-snatching) and theft with violence; but should exclude pick pocketing and extortion.

Solid waste generation per capita: Total municipal solid waste generated includes residential, commercial and institutional wastes. Per capital solid waste is calculated based upon tons generated and population reported.

Sufficient living area: A house is considered to provide a sufficient living area for

the household members if not more than three people share the same habitable (minimum of four square metres) room.

Theft: It means depriving a person or organization of property without force with the intent to keep it. It excludes burglary, housebreaking, robbery and theft of a motor vehicle, which are recorded separately.

Under-five mortality rate (per 1,000 live births): The probability of a child born in a specific year or period dying before reaching the age of five.

Unorganized economy: This includes all market-based legal production of goods and services that are deliberately concealed from public authorities.

Urban agglomerations: It refers to the population contained within the contours of a contiguous territory inhabited at urban density levels without regard to administrative boundaries. It usually incorporates the population in a city or town plus that in the sub-urban areas lying outside of but being adjacent to the city boundaries.

Urban slum dwellers: Individuals residing in housing with one or more of the following conditions: inadequate drinking water, inadequate sanitation, poor structural quality/durability of housing, overcrowding and insecurity of tenure.

Value added per worker: It is the output of a sector net of intermediate inputs.

KEY TO INDICATORS

Indicator	Indicator table	Indicator	Indicator table
A, B, C			
Armed forces personnel,		per capita expenditure	12
number	7	Defence expenditure,	
% of total labour force	7	per capita	7,12
Birth rate, crude	9	%, annual increase	7
Births attended by trained health staff	6	% of central government expenditure	7
Birthweight, low	6	% of GDP	7
Budget, public sector, % of GDP,		total	7
deficit/surplus	12	Dependency ratio (age)	9
expenditure, total	12	Dietary energy consumption,	
revenue, total	12	daily, kcal per person	10
Cereal,		Disaster, natural,	
exports	10	economic losses from natural disasters	11,1u,8u
imports	10	number of disaster-affected people	11,8u
production	10	number of disaster-events	11,8u
Children,			
one-year-olds fully immunized,		E	
against DPT	3	Economic activity rate, female (% of male)	5
against measles	3,6	Education expenditure, public,	
against polio	6	per capita	12
against tuberculosis	6	% of GDP	2,8
in the labour force	6	% of government expenditure	2
mortality rate, infant	1,6	Electricity production	11
mortality rate, under-five,		Employment,	
by urban wealth quintile	8u	informal employment,	
overall	4, 6	female	9u
not in primary school	2	overall	1u,9u
reaching grade five, % of grade one students	2	% of female aged 15-24 years non-employed,	
with diarrhoea,		non-slum	6u
non-slum	6u	rural	6u
rural	6u	slum	6u
slum	6u	urban	6u
total	6u	% of female aged 15-24 years in informal employment,	
urban	6u	non-slum	6u
Contraceptive prevalence rate	3	rural	6u
Crimes,		slum	6u
assault rates	6u	urban	6u
burglary rates	6u	sectoral composition, %,	
homicide rates	1u,6u	agriculture	9u
kidnapping rate	6u	industry	9u
robbery rates	6u	services	9u
theft rates	6u	Energy use per capita	11
Crop production index	10	Enrolment, %,	
		combined 1st, 2nd and 3rd level, gross ratio,	
D		female	5
Death rate, crude	9	total	1,2
Debt external,		primary level, gross,	
% of GNI	12	female	5
total	8	total	2
Debt servicing,		primary level, net,	
% of exports	8	female,	
% of GNI	8,12	non-slum	6u
		rural	6u

Indicator		Indicator table	Indicator	Indicator table
	slum	6u	% of government expenditure	3
	total	5,6u	HIV/AIDS, affected,	
	urban	6u	adult population, % aged 15-49	3,4
male,			population, total	3
	non-slum	6u	Housing, urban,	
	rural	6u	population with durable housing	1u,5u
	slum	6u	population with sufficient living area	1u,5u
	total	2,6u	Human Development Index	1
	urban	6u	Illiterate adults,	
total		2	total,	
secondary level,			number	4
gross		2	% of adult population	4
net		2	females,	
technical and vocational		2	number	4
Exports, % of GDP		8	% of adult (female) population	4
			Immunization, one-year-olds fully immunized,	
			against DPT	3
			against measles	3,6
			against polio	6
			against tuberculosis	6
			Imports,	
			arms	7
			goods and services	12
			Inequality,	
			Gini index, urban	1u
			ratio of highest 20% to lowest 20%	8
			Inflation, average annual rate,	
			consumer prices	12
			food prices	12
			Infrastructure,	
			quality	9u
			constraints facing by firms in the urban/ non-agricultural formal sector,	
			firms value lost due to power outages	9u
			% of firms identifying electricity as a major constraint	9u
			% of firms identifying transportation as a major constraint	9u
			% of firms owning or sharing a generator	9u
			K, L	
			Labour force,	
			annual growth rate	9
			child	6
			educational attainment,	
			no education	9u
			primary	9u
			secondary	9u
			tertiary	9u
			female	9
			male	9

Indicator	Indicator table	Indicator	Indicator table
total	9	deaths	8u
Land,		disability adjusted life years (DALYs)	8u
area	10		
irrigated, % of cropland	10	P, Q, R	
Land use,		Parliament, seats held by women	5
arable, % of land area	10	Physicians, per 1,000 people	3
permanent cropped area, % of land area	10	Population,	
Life expectancy at birth,		annual growth rate	1,9,2u
female	5	density	2u
total	1	female,	
Literacy rate,		number	5,2u
adult,		% of male	5
female	1,5	rural,	
female, % of male	5	annual growth rate	9,2u
male	2	number	9,1u,2u
non-slum	6u	total	1,9,1u,2u
rural	6u	under-five,	
slum	6u	number	6
total	1,2	% of total	6
urban	1u,6u	under 18,	
youth,		number	6
female, % of male	5	% of total	6
total	2	urban,	
Legislators, senior officials and managers, female	5	annual growth rate	9,2u
		number	9,1u,2u
M, N, O		Poverty, income,	
Malnourished, weight for age (children under-five),		population below national poverty line,	
non-slum	6u	rural	8,1u
rural	6u	total	4
slum	6u	urban	8,1u
total	4,6u	population below US\$1.25 a day,	
urban	1u,6u	number	4
Money supply, average annual growth	12	%	4,8
Mortality rate,		population below US\$2 a day,	
infant	1, 6	number	4
maternal	3	%	4,8
under-five,		Professional and technical workers, female	5
by urban wealth quintile	8u	Pupil teacher ratio	2
overall	4,6	R&D expenditures, % of GDP	2
Motor vehicle,		Railways,	
passenger cars	7u	goods transported	7u
per 1,000 people	7u	passengers carried	7u
per km of road	11	total route	7u
Official development assistance received, net,		Researchers, per million inhabitants	2
% of GNI	8	Roads,	
total	8	goods transported	7u
Outdoor/urban air pollution attributable deaths and		passengers carried	7u
disability adjusted life years (DALYs),		paved	7u
overall,		total network	7u
deaths	1u,8u	traffic deaths,	
disability adjusted life years (DALYs)	1u,8u	number	7u
under-5,		rate, per 100,000 people	7u

Indicator	Indicator table	Indicator	Indicator table
S			
Sanitation,		cities with population of 1 to 5 million,	
population using improved,		number of agglomerations	4u
with access,		% of urban population	4u
national	3,5u	population	4u
rural	5u	cities with population of 500,000 to 1 million,	
urban	1u,5u	number of agglomerations	4u
without access,		% of urban population	4u
number	4	population	4u
%	4	cities with population of fewer than 500,000,	
School life expectancy,		% of urban population	4u
primary to secondary	2	population	4u
primary to tertiary	2	largest city,	
Sea level rise, urban population at risk from,		population	4u
% of low elevation coastal zone (LECZ) urban to		% of urban population	1u,4u
total urban	8u	% of total population	4u
% of urban population in LECZ	1u,8u	Urbanization,	
total population in LECZ	8u	% of population living in urban areas	1u,3u
urban population in LECZ	8u	annual rate of change	3u
Solid waste generation rate per capita, urban	1u,8u	slum population, urban,	
Women in ministerial level positions	4	number	3u
		% of urban population	1u,3u
		slum households,	
T, U, V		area with 25 % or less slum	
Tax revenue,		households	3u
by,		area with 26-50 % or less slum	
goods and services	12	households	3u
income, profits and capital gain	12	area with 51-75 % or less slum	
international trade	12	households	3u
other taxes	12	area with 75+ % or less slum	
% of GDP	8, 12	households	3u
Trade, % of GDP	8	Value added per worker	
Undernourishment,		primary	9u
number	10	secondary	9u
% of total population	10	tertiary	9u
Unemployment rate,		total	9u
female	5		
total, %	5,9	W, X, Y, Z	
Urban agglomeration, population,		Wages, ratio,	
capital city,		industry to agriculture	9u
city name	4u	services to agriculture	9u
population	4u	Water, population using improved,	
% of urban population	4u	household connection,	5u
% of total population	4u	with access,	
cities with population of 10 million or more,		national	3,5u
number of agglomerations	4u	rural	5u
% of urban population	4u	urban	1u,5u
population	4u	without access,	
cities with population of 5 to 10 million,		number	4
number of agglomerations	4u	%	4
% of urban population	4u	Women in ministerial level positions	4
population	4u		

Note: 'u' is added to table numbers which appear in *Profile of Urbanization in South Asia*.

Theme of the Reports on Human Development in South Asia

1997	The Challenge of Human Development
1998	The Education Challenge
1999	The Crisis of Governance
2000	The Gender Question
2001	Globalization and Human Development
2002	Agriculture and Rural Development
2003	The Employment Challenge
2004	The Health Challenge
2005	Human Security in South Asia
2006	Poverty in South Asia: Challenges and Responses
2007	A Ten-year Review
2008	Technology and Human Development in South Asia
2009	Trade and Human Development
2010/11	Food Security in South Asia

Published for Mahbub ul Haq Human Development Centre by
Oxford University Press, Karachi.

Published by Mahbub ul Haq Human Development Centre

1999	Profile of Poverty in Pakistan
2000	First Mahbub ul Haq Memorial Lecture
2012	Governance for People's Empowerment
2013	Water for Human Development

Mahbub ul Haq Centre's Report on *Urbanization: Challenges and Opportunities* addresses the impact of urbanization on human development in South Asia. The Report analyses the numerous challenges and opportunities stemming from urbanization from the perspective of economic growth, access to infrastructure and key services, the environment and governance arrangements. While South Asia is urbanizing faster than many other regions in the world, are the benefits of urbanization being evenly distributed? Is urban-led economic growth improving job prospects and opening the doors to a better life? Is urbanization enhancing people's access to key infrastructure and services or is it increasing socioeconomic disparities for urban residents, specifically for the poor and marginalized groups? Can South Asia manage urbanization effectively and ensure an inclusive and sustainable future for its growing urban populace? These are some of the issues the Report tries to explore and assess. The high quality of analytical work and the wealth of data on urbanization and human development in South Asia collected for this Report will be valuable for policy makers and the academic community.

Human Development in South Asia 2014 has been prepared under the supervision of Khadija Haq, President of Mahbub ul Haq Centre. Research was conducted by a team consisting of Nazam Maqbool, Umer Malik, Fazilda Nabeel and Amina Khan. Two South Asian consultants, Prof. Jayati Ghosh, Jawaharlal Nehru University, New Delhi and Dr. Rizwan Khair, Director of Institute of Governance Studies, Bangladesh Rural Advancement Committee (BRAC) University, contributed papers on the conceptual framework and managing urbanization.



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