URBAN DEVELOPMENT IN OIC COUNTRIES

Towards Sustainable Urbanization

ORGANISATION OF ISLAMIC COOPERATION

STATISTICAL, ECONOMIC AND SOCIAL RESEARCH AND TRAINING CENTRE FOR ISLAMIC COUNTRIES

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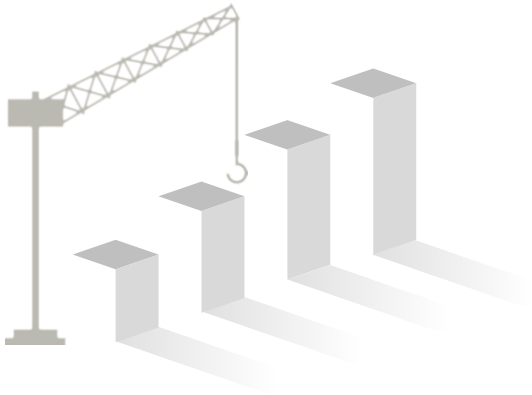

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Kudüs Cad. No: 9, Diplomatik Site, 06450 Oran, Ankara –Turkey
Telephone +90 312 468 6172
Internet www.sesric.org
E-mail pubs@sesric.org

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For additional information, please contact the Economic and Social Research Department of SESRIC through: research@sesric.org

Contents

Acronyms

BCE	Before Common Era
CCFLA	Cities Climate Finance Alliance
CIMI	Cities in Motion Index
CO2	Carbon Dioxide
CSO	Civil Society Organization
EIU	Economist Intelligence Unit
EU	European Union
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GPCI	Global Power City Index
HLPF	High Level Political Forum
ILO	International Labour Organization
IPCC	Intergovernmental Panel on Climate Change
MENA	Middle East and North Africa
NASA	National Aeronautics and Space Administration
NUA	New Urban Agenda
NUP	National Urban Policy
OECD	Organisation for Economic Co-operation and Development
OIC	Organization of Islamic Cooperation
PIRI	Prime International Residential Index
PPP	Purchasing Power Parity
SDG	Sustainable Development Goal
UAE	United Arab Emirates
UCLG	United Cities and Local Governments
UN	United Nations
UN-Habitat	United Nations Human Settlements Programme
UNHCR	United Nations High Commissioner for Refugees
UNFPA	United Nations Population Fund
UNISDER	United Nations International Strategy for Disaster Reduction
UNU-EHS	United Nations University - Institute for Environment and Human Security
US	United States
WASH	Water, Sanitation and Hygiene

Preface

The urban population of the OIC Member States is growing at a rapid pace. According to United Nations projections, more than 68% of the total OIC population will live in urban areas by 2050. Rapid urbanization means that many OIC cities are becoming megacities in terms of population and their size is constantly increasing. Cities are also becoming increasingly important in terms of national income generation, employment opportunities and the accumulation of skills, capital and technology. These facts indicate the need to approach urbanization as a tool to help grow the economies of OIC countries, as well as to provide an economically efficient, socially equitable, eco-friendly and safe life for urban dwellers.

In OIC countries, cities vary considerably in terms of resource allocation, socio-economic performance and urban development. Increasing urbanization can give rise to new development challenges, including poverty, social inequalities and climate change, among others, particularly in those cities which are already facing financial and institutional constraints. In addition, in some OIC regions, urbanization is more often disorganized, informality becomes more common over time and cities expand their territories faster than their population – suggesting that many OIC countries will need more and more land to build cities and fuel urban consumption as the urban population continues to grow.

This report explores urbanization trends in OIC countries, and examines what their urban landscape looks like today. It is useful to highlight the many challenges of urbanization but also the opportunities that abound in the OIC countries. The report provides many ideas on how to plan our cities, manage them and strengthen the urban governance structure and institutions. One of the advantages of this report is the comparability between the most influential OIC cities, which allows local authorities, in general, to understand how their cities have developed and to learn from best practices. In addition, the wide range of issues covered by the report, makes it a useful manual for local development.

The OIC countries must be well-prepared to effectively plan for the rapid urbanization that is taking place. The New Urban Agenda, adopted by world leaders in 2016, provides a roadmap for sustainable urbanization and the achievement of Sustainable Development Goals at the local level. I would like to encourage OIC countries to place sustainable urbanization at the centre of their development priorities, and to accelerate the implementation of the new Urban Agenda, so that the OIC urban areas are more sustainable for their economic, social and environmental development. In this context, I would like to emphasize that the OIC will continue to invest in strengthening its cooperation with the UN-Habitat and other relevant international and regional partner organizations.

In fact, Islam provides guidance for proper urban life and urban environment. Islamic tradition portrays urbanization as a balance between ecological sustainability, social solidarity and economic justice, which are all important dimensions of contemporary understanding of urban sustainability. There is much to be inspired from our religion and our civilizations which provide answers to many urbanization challenges.

This report was developed with dedication and thanks to skills and efforts of the SESRIC research team. We hope that the report will inform our policy makers, the media, and the general public and that it stimulates a rich dialogue on the current and future path to the development of OIC cities.

Dr. Yousef A. Al-Othaimeen
Secretary General
Organisation of Islamic Cooperation

Foreword

The OIC countries, like other developing economies, are going through a process of significant urbanization that is offering opportunities to improve the lives of people and enhance economic development in cities. Although the urbanization is not happening in the same nature or at the same pace in all OIC member states, many would agree with the fact that the economic strength of countries lies in their cities. In almost all cases, the contribution of urban areas to national income is greater than their share of the national population. For that reason, it is important that the OIC governments approach urbanization as a positive phenomenon and integrate it into the national development priorities.

From a global perspective, as more people live in cities now compared to any time in history, sustainable urban development has become a prerequisite for the sustainable development of countries. For that reason, cities are garnering greater attention in the global development system, particularly through the adoption of the 2030 Agenda for Sustainable Development, the New Urban Agenda and the Paris Agreement on Climate Change. All aspects of human development as espoused in these documents, such as poverty eradication, sustained economic growth as well as combating climate change, will have to be realized in cities. In fact, the decisions that national leaders, local officials, developers, and planners make today will determine how billions of urban dwellers will live over the next century.

Unfortunately, current urbanization pathways of many cities in the OIC countries do not promise prosperity gains for all. Some of the OIC cities are growing and changing so fast that authorities are struggling to cope. If not properly managed, these cities will face numerous challenges in meeting the needs of their growing urban populations, including for safe housing, infrastructure, employment as well as for basic services. In OIC countries, there is already a remarkable number of people who live in slums, exposed to multiple risks and excluded from the conventional urban advantages. In order to face the issue effectively and ensure inclusivity for all, efforts must focus on understanding the root cause of this trend, as well as unpacking the core values of cities' residents in order to find appropriate solutions.

The OIC countries need knowledge on how to get towards more sustainable urbanization. Often best practices on urbanization are being offered from the perspective of developed countries, where the context is completely different. However, when offering policy recipes on urbanization in developing countries, one should be very careful and took into consideration local conditions. Otherwise, in some cases, policy recommendations may appear to be irrelevant.

The purpose of this report is to provide a framework of broad understanding of urbanization process in OIC countries and to promote the concept of sustainable urbanization. The report has the ambition to embed the issue of urbanization high on the OIC agenda and to become a driver for a positive change in OIC cities.

Here, I would like to underline that Islam promotes a holistic approach towards urbanization, and this report, inter alia, brings into attention some core Islamic values and principles through which policy-makers can reimagine the 'good city', guide urban life and planning, and formulate new solutions to contemporary urban problems.

This report is a result of a substantial investment in time, effort and dedication of the SESRIC staff. I would like to acknowledge their contributions in hope that you will enjoy reading this report, but above all, benefit from its findings.

Nebil Dabur
Director General
SESRIC

Acknowledgements

A core research team at SESRIC led by Dr. Erhan Türbedar and comprising Ayşe Sena Kosger, Cihat Battaloglu, Fadi Farasin, Mazhar Hussain, Dr. Neslihan Çevik and Tazeen Qureshi has prepared this report. The work was conducted under the leadership and supervision of H.E. Nebil Dabur, Director General of SESRIC.

Ayşe Sena Kosger and Dr. Neslihan Çevik prepared the Chapter 1 on *Understanding the Drivers of Urbanization*. Chapter 2 titled *Urbanization in OIC Countries: Current State and Trend Analysis* is prepared by Cihat Battaloglu. Fadi Farasin and Tazeen Qureshi wrote the Chapter 5 on *Social Impacts of Urbanization*. Mazhar Hussain is author of the Chapter 6 on *Environmental Pressures and Urban Resilience*. Dr. Erhan Türbedar wrote Chapter 3 on *Sustainable Urbanization and the New Urban Agenda*, Chapter 4 on *Economic Performance and Liveability of OIC Cities*, Chapter 7 on *Urban Governance and Legislation* and Chapter 8 on *Planning for Making Cities More Sustainable*.

The team acknowledge efforts of Dr. Kenan Bağcı in planning and structuring the report, and praise contributions of UN Habitat officials, particularly Joe Hooper, who took the time to respond to our questions during the preparation phase.

The team extends special thanks to OIC senior local authorities that took part in the SESRIC's online survey on urbanization, namely, officials from Afghanistan (Kabul), Egypt (Alexandria), Jordan (Amman, Irbid, Ma'an), Kyrgyzstan (Bishkek), Malaysia (Kuala Lumpur), Pakistan (Gilgit, Islamabad, Karachi, Lahore, Muzaffarabad, Peshawar), Saudi Arabia (Madinah) and Turkey (Balıkesir, Denizli, Diyarbakır, İzmir, Kahramanmaraş, Şanlıurfa). Dr. Kenan Bağcı led the work on preparation of questionnaire, while Tazeen Qureshi did collection of survey results. The team acknowledge support of the Union of Municipalities of Turkey, especially collaboration of Gülfem Kıraç Keleş in dissemination of the survey questionnaire.

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Executive Summary

Rapid urban population growth is the key feature of contemporary world. It took all of history until 1960 for the global urban population to reach one billion, but only 26 years to reach two billion in 1986. It then took 29 years to reach near four billion in 2015, and according to UN projections, the urban share of the world population will grow to 66% by 2050 with 6.419 billion people living in cities.

The urban history goes back to a distant past. Some oldest urban settlements of the world were located in today's OIC area. Moreover, urbanization and the rise of Islamic civilization went hand in hand. At its height, Islam was the most innovative civilization of the world, and shaped the social life of cities. Even today, Islamic value system provides a vibrant alternative source that can bring effective solutions to urban challenges and improvements in urban life.

Urbanization is fostered by demographic, economic, political, social and environmental factors. Large cities began to grow in response to the Industrial Revolution. Since the second half of the twentieth century, globalization has also become a growing influence on the urbanization of developing countries.

There is a shift in speed of urbanization from developed world towards developing one. In last decade, with over 3% of annual urbanization rate, the OIC member states as a group are urbanizing faster than non-OIC developing countries, and hosting around 22% of global urban population. The OIC population in urban areas grew by near 497 million people between 1990 and 2016. However, in 2016 only 31 OIC countries had a population that is over 50% urban. Uganda, Niger, Chad, Tajikistan, Afghanistan, Comoros, Guyana and Burkina Faso are in the list of world's 20 least urbanized places. Yet, with growing urbanization, by 2050, 68.2% (1.7 billion) of the OIC's population is expected to live in urban areas.

Although large OIC cities such as Cairo, Dhaka, Karachi, Istanbul and Lagos serve as magnets for millions of people, who are in search of better livelihood opportunities, the fastest growing urban centres are the small and medium cities. The number of cities with half a million people or more reached from 14 in 1950 to 202 in 2015, and is expected to increase to 343 by 2035. Batam (Indonesia), Ouagadougou (Burkina Faso), Nnewi (Nigeria), Abomey-Calavi (Benin) and Bamako (Mali) are among fastest growing OIC cities in terms of population, all of them growing over 6% annually.

Urbanization is not anymore only demographic process. It is a multidimensional process where non-demographic drivers such as urban form, institutions, governance structure, legal frameworks, lifestyles, attitudes and consumption patterns interact and amplify changes in urban areas. For that reason, ability of cities to facilitate sustainable growth will remain limited without properly understanding of the contemporary urbanization patterns.

The concept of sustainable cities and its links with sustainable development have been discussed for decades in the context of global development efforts. In 2016, issue of sustainable urbanization gained momentum at the UN Conference on Housing and Sustainable Urban Development, Habitat III, by adopting of the New Urban Agenda, which provides a roadmap for sustainable urbanization and achieving the Sustainable Development Goals at local level. Development in cities is critical to achieving most of the goals of 2030 Agenda for Sustainable Development, not only Goal 11 - which calls for making cities and human settlements inclusive, safe, resilient and sustainable.

Economic strength of countries lies in cities, because they are places where biggest share of economic development really happens. Countries tend to stagnate when too many of their cities fail to build economic wealth. Within the top 10 OIC cities with largest real GDP levels, in 2016, Istanbul and Jakarta took the lead with 277 billion dollars and 254 billion dollars, respectively, followed by Riyadh (169 billion dollars), Abu Dhabi (129 billion dollars) and Kuala Lumpur (127 billion dollars). However, the GDP rankings of top 10 OIC cities might change by 2035, since Jakarta is expected to jump to the first place with projected 566 billion dollars. Still, it is intriguing to note that by 2035, no OIC city is projected to be part of the world's top 10 largest urban agglomerations in terms of GDP.

According to the Global Metro Monitor 2018, between 2014 and 2016, Istanbul has been ranked 12th among 300 largest metropolitan economies of the world in terms of economic performance. Within OIC, Istanbul was followed by Dhaka (25th place) and Jakarta (28th place). In terms of well-being, however, the picture looks much different. Al Ain, Doha, Al Kobar, Ad Damman, Dubai, Riyadh and Abu Dhabi are OIC cities with very high living standard, where the inhabitants on average live better than those in New York. On the opposite side, majority of OIC cities do not enjoy even the half of average living standard in New York.

Abu Dhabi, Dubai, Istanbul, Jakarta, Jeddah, Kuala Lumpur and Riyadh are home to some of the world's wealthiest people. Moreover, they are increasingly becoming global economic hubs. 16 out of the top 100 most visited cities in 2018 are in OIC countries. Dubai (16.7 million arrivals) and Kuala Lumpur (13.4 million arrivals) are the top two OIC performers in this regard, and ranking among top 10 most visited cities in the world, with 7th and 9th places respectively.

Economic development and improvements in well-being are only part of the OIC urbanization story. Often lot of people may continue to live under difficult conditions,

due to concentration of wealth in a certain part of the society. Moreover, it is obvious from the facts on the ground that many OIC cities are not performing well. Several indexes that measure the sustainability of cities indicate that in OIC a lot of work has to be done for overall improvements in sustainable urbanization.

Urbanization in many OIC cities is failing to meet the demands of growing numbers of urban residents in three categories: adequate housing, formal jobs, and infrastructure and services. In 35 OIC countries with available data, more than 232 million people live in slums, typified by poor quality housing, often located in the most hazardous urban land. In many cases, slums or informal settlements do not provide adequate access to basic services, such as safe drinking water, adequate sanitation, and waste disposal. Populations residing in informal settlements are often excluded from benefits of urbanization and from fair and equal opportunities to attain progress and prosperity.

While poverty is a reason to resort to slum settlements, the proliferation of slums and squatter settlements in turn exacerbates poverty and generate a greater number of urban poor, creating a vicious cycle of urban poverty. For that reason, the slum challenge remains a critical factor for the persistence of poverty in the OIC area. A survey conducted by SESRIC shows that importance of reducing informal settlements and providing opportunities for affordable housing remains to be underestimated in OIC area, as this issue takes the last place in the future priorities of some OIC cities.

In general, informal settlements are indifferent to the needs of persons with disabilities, displaced persons and refugees, various minorities, or cultural groups. Together with growing economic inequalities in cities, it is fair to argue that inclusive growth remains to be among major challenges that OIC area is far of achieving.

Cities are increasingly vulnerable to environmental risks due to not only the high concentration of people, infrastructure and commercial activities in urban areas, but also due to their lion share in emissions of greenhouse gases. The science and policy communities increasingly recognize the urban areas as the primary driver of global climate change and sustainability challenges.

The OIC countries became highly vulnerable to the effects of climate change, as they are experiencing more frequent extreme weather events—floods, droughts, heat waves and rising sea levels. Future increase in global warming is expected to boost the extreme hot events - posing serious threats for human beings and ecosystem, particularly in OIC countries and cities with challenging water security situation.

In a business as usual scenario, sea level rise could submerge land currently home to over 164 million people spread across 44 OIC countries. Top-20 OIC cities with the highest number of population exposed to sea level rise account for around half of the OIC total in all warming scenarios (ranging from 1.5°C to 4°C). Coastal cities most at risk are located in Bangladesh (seven cities) and Indonesia (six cities).

Some OIC cities are not only characterized with high vulnerability to climate-induced disasters and extreme events, but are also least prepared with minimal disaster management capacities and policy frameworks. As a result, lack of coping and adaptation capacities worsen the prospects for an effective and efficient response to and recovery from natural disasters and weather extremes. Existing reports suggests that many OIC countries do not pay significant attention to the issues related with environmental sustainability and climate resilience.

The OIC cities will face many challenges amidst increasing urban growth, without robust legal and institutional framework and effective governance capacities. Sustainable urban development needs to be led by the national governments, working closely with subnational and local authorities, as well as civil society and other relevant stakeholders, in a transparent and accountable manner. The first thing to be done in this direction is putting in place a National Urban Policy (NUP) that will guide the growth and management of cities. The encouraging think from NUP indicators is the fact that the 46 OIC countries have put in place at least partial elements of national urban policies, what offers foundation on which to build on. However, in many OIC countries, much work has to be done for accelerating development and implementation of NUPs.

The NUPs link strongly with urban legislation, without which NUPs cannot be implemented. There is no blueprint for urban legal reform in the OIC cities, because the countries' law-making systems, political contexts and urban challenges differ in significant way. Nevertheless, the New Urban Agenda provides an important framework to guide basic urban legislation reforms.

NUPs and related urban laws should be supportive of decentralization, i.e. delegating both responsibilities and resources to cities. The OIC countries recognise the need to empower local governments but many of them remains to be centralized. Only Indonesia appears to be the highly decentralized OIC country, followed by Albania, Brunei, Malaysia and Nigeria in the category of medium-high level decentralized countries. Unclear institutional roles, and limited functional and revenue assignments continue to leave many OIC local governments with uncertain authority, and limit their power when making decisions for most service delivery obligations.

Unfortunately, in some cases, city financing in OIC area is not keeping pace with the growing demand for basic urban services, what additionally inhibits more extensive local action and effective governance. Municipal governments around the world are increasingly looking for new and innovative ways to finance their operational expenditures as well as investments. The OIC local governments with, the support of national authorities, should also improve their understanding of the available financing options.

While the urbanization challenges have changed dramatically, in many OIC countries planning systems have become outdated and are now frequent contributors to urban

problems. The way cities and human settlements are designed, planned, built and managed has far-reaching implications for sustainable future. For that reason, establishing a rational system of planning and good local governance that begins with the adoption of the Integrated Urban Development approach is essential. Crucial element of integrated urban development is moving from rigid and isolated sectoral interventions to more flexible and more comprehensive multi-sectoral interventions, considering interrelationship among housing, transportation, land use, infrastructure, environment, employment, education, natural resources and other policy areas. Planning responses to integrated urban development approach should be strategic, i.e. visionary, participatory, democratically agreed, in line with global development agenda, but also authentic, supportive to history, tradition, identity, resources and specific development goals of a given place.

Integrated Urban Development promotes compact cities and transit-oriented development, which advocates the management of the peripheral expansion of cities in the interest of more compact cities with higher density. Compact urban development coupled with high residential and employment densities can reduce energy consumption, vehicle miles travelled, CO2 emissions, as well as save land for agriculture, wildlife and habitat by using less land for urban development. Moreover, creating and operating the same infrastructure at higher densities is more efficient, more economically viable and often leads to higher-quality services.

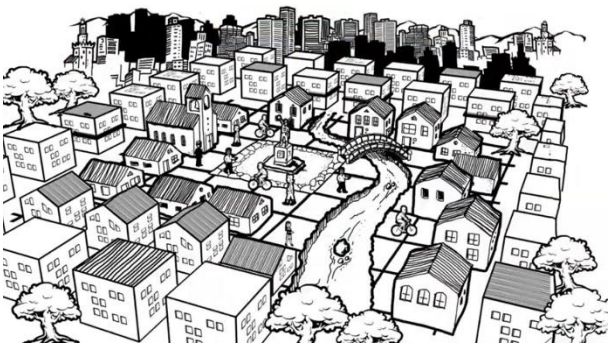
In 2018, average population density (per square kilometre) of 217 large OIC cities was 6,501 persons, double than the average population density in 217 large urban areas of developed countries (2,980 persons), but significantly less than the average population density of 630 large urban areas in non-OIC developing world (8,688 persons).

Between 1999-2003 and 2010-2015 periods, the expansion of urban land (40%) outpaced the growth of urban population (31%) in randomly selected 42 OIC cities located in different regions. This finding shows that non-compact urban expansion has been guiding city planners over years. OIC cities on average are less dense as they grow, causing unplanned urban sprawl, where informality is becoming more common over time.

Since the rate at which populations and land cover are becoming urban is faster than at any other time in history, the conversion of land from rural to urban should be guided by effective policies, in harmony with sound municipal plans or regulations.

CHAPTER ONE

Understanding the Drivers of Urbanization



The urban history goes back to a distant past. Cities were a feature of all the great ancient civilizations. Relatively small by modern standards, they, nevertheless, facilitated a far more diverse range of activities than was possible in other forms of human settlement. Despite the long history, many of today's cities are a continuation of the ancient cities in terms of geography, form and function of urbanization. This historical continuum demonstrates that first human settlements are crucial to gain insights about urban development in today's world.

1.1 The Birth of Urban Areas

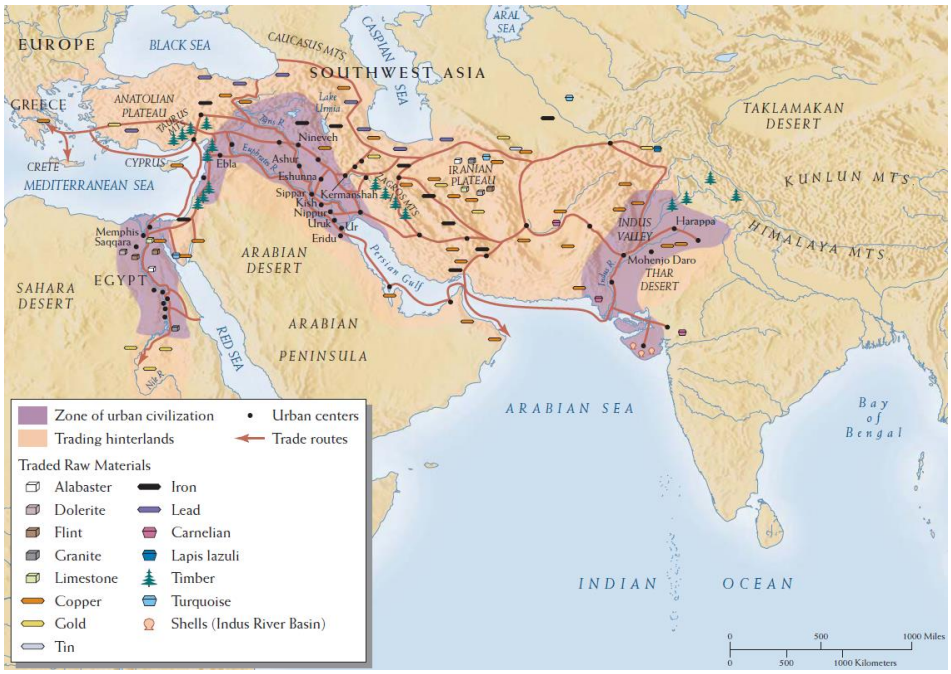
Earliest human settlements rose around 10,000 years ago. Some scholars have argued that the rise of early settlements were motivated by cosmological incentives; people settled around areas where they buried their dead; and cemeteries eventually turned into temples where religious rituals were hold.

First permanent settlements, on the other hand, emerged for agricultural incentives and in the form of villages. The emergence of villages was enabled by the rise of the Neolithic era. Until the Neolithic era, ancient people were mainly hunters-gatherers. As the earth warmed up in the Neolithic era, however, the soil became arable, enabling the cultivation of wild and domestic grains. The first permanent settlements in history, therefore, emerged along with and for agricultural purposes. In other words, fertile agricultural land was the first driver of urbanization in history (Mumford, 1956).

In comparison to early villages, early cities emerged around 5000 years later in the valleys of the Nile, the Tigris and Euphrates, and the Indus (Map 1.1). The foundations of present-day Cairo rest upon the ancient capital of Memphis, one of the oldest urban settlements in the world, which flourished between 5000 and 2500 BCE (Martin, 2004). During the first half of the fourth millennium BCE, the population expanded in the Tigris-Euphrates river basin, because of the region's agricultural bounty, and swelling ranks of Mesopotamians migrated from country villages to centres that eventually became cities (Tigoner et. al, 2011). One of the first urban centres in the world was the ancient city of Uruk, located on a branch of the Euphrates River, with more than 10,000 people by the late fourth millennium BCE. Eridu and Nippur were also among earliest cities of this region. Further east, in about 2500 BCE, cities like Harappa and Mohenjo Daro grew up along the Indus river.

Early cities were differed from the former village settlements in many respects. First, the population size and density were larger in cities. Second, all early cities gained status as religious, cultural and economic centres. As illustrated in Map 1.1, they were linked with extensive commercial networks, including long-distance trade. Further, early cities serviced their local agricultural economies, providing the markets and goods that made possible local specialization and exchange.

Map 1.1: Ancient Cities and Trade Routes (Third Millennium BCE)



Source: Robert Tignor et al., *Worlds Together, Worlds Apart: A History of the World from the Beginnings of Humankind to the Present*, W. W. Norton & Company: New York, 2011.

Image 1.1: A 2018 View of Modern Cairo and the Nile River

Source: Photo from the personal collection of E. Türbedar.
Notes: Cairo evolved at the site of the ancient city of Memphis, one of the first urban settlements, dating from 5000 BCE. Until fifteenth century, Cairo surpassed any European city in terms of urban development and population.

The activities of early urban settlements largely included hunting, gathering, agriculture, fishing, gardening, and herding (Childe, 1950). Agricultural production provided food surplus. This had several significant outcomes regarding city formation. First, societies became quite stable and adopted a sedentary way of life. Second, preservation of agricultural surplus became a matter to resolve, which required cooperation among urban inhabitants. Third, the increase in the volume of surplus brought forth 'the diversification of productive activities' and division of labour came into the picture (UN, 2008). Consequently, a new type of non-agricultural population emerged, who engaged mostly in trade, craft production or religious affairs (Gottdiener et al., 2014). This population would eventually become the building blocks of the city.

Another critical dimension of urban history is the birth of Islam. Urbanization and the rise of Islamic civilization went hand in hand. Among the Arab-Muslim world, Islam played a significant role in promoting an urban way of life. By the first centuries of Islam, around 20 cities were established by Muslims from Atlantic to China namely Basra, Kufa, Fustat, Nishapur, Samarkand, Bukhara and the like (Alver, 2017). In a parallel vein, Islam changed the structure of existing cities such as Makkah and Madinah.

Image 1.2: The Round City of Baghdad in the 10th Century

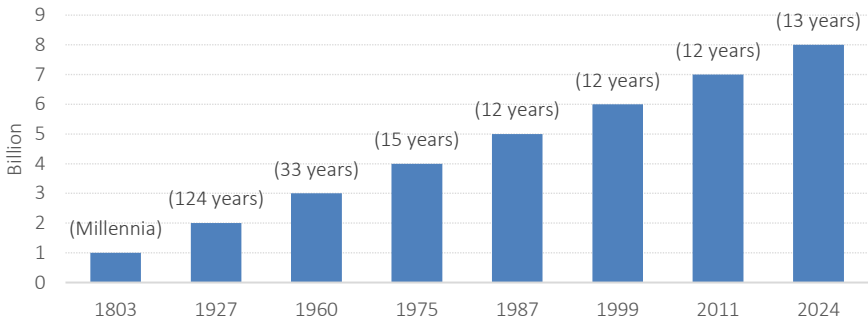
Source: "The Stories of Cities: The Birth of Baghdad Was a Landmark for World Civilisation" *The Guardian*, Illustration: Jean Soutif/Science Photo Library.

At its height, Islam was the most innovative civilization of the world, what shaped the social life of cities. For example, Baghdad, which was founded in the mid-8th century, turned to be one of the most important centres for the study and production of philosophy, religious studies, mathematics and science. By the late 9th century, population of Baghdad is estimated to have reached half a million, making it one of the

largest cities in the world in that era (Agoston and Masters, 2009). Moreover, foundation of Baghdad was a glorious milestone in the history of urban design (see Image 1.2).

It is estimated that between 1500 and 1803 the world's population more than doubled. The Figure 1.1 shows that in 1803 the world population reached its first billion. Then, from 1803 the rate of increase began to accelerate so that the world's population reached its second billion in 1927. It then took 33 years to reach three billion, and additional 15 years to add another billion to the world population. The period of fastest population growth occurred through 1975 to 2011, taking only 12 years to increase by one billion for the 5th, 6th and 7th billion (Figure 1.1).

Figure 1.1: Time Required for World Population to Increase by One Billion

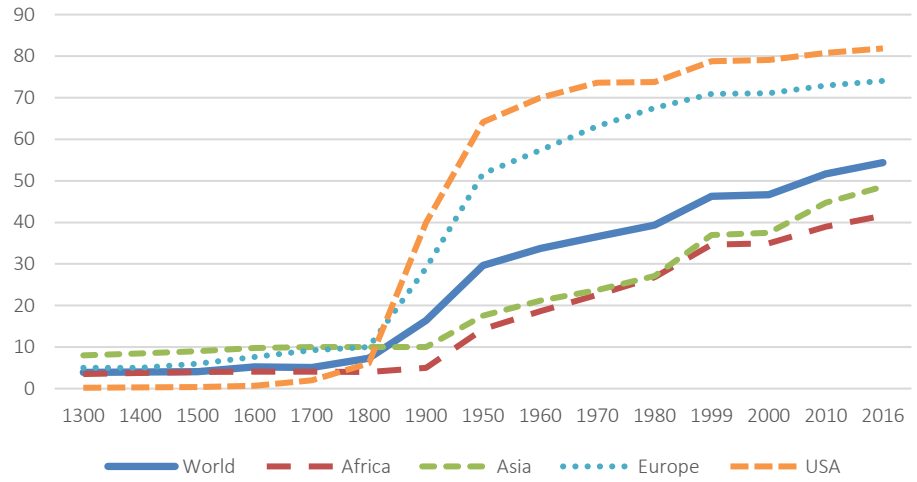


Source: History Database of the Global Environment, World Bank and UN.

In some regions, dramatic increase in population was caused by a higher birth rate, in others by a decline in the death rate, but in most cases it was due to a combination of the two. Nevertheless, an increasing number of people living in the cities has accompanied the increase in population growth. However, the rise of modern city was largely triggered by the Industrial Revolution that took place throughout the 18th and 19th centuries in Western Europe. During this period, Western countries experienced multiple and radical changes in a chain reaction that together transformed them from a predominately-agrarian society to an industrial and urban society (Figure 1.2).

Industrialization went hand in hand with development of new communication, production, and transportation technologies (steam engine), replacing house-based simple production of the agrarian society to mass production in factories. Mechanization and rise of new production technologies eventually reduced the need for work force in rural areas, while factories started to create a significant demand for labour in the city. Moreover, cities with their higher standards of living become attractive hubs. Industrialization in short promoted rural to urban migration and migration became a potent source for urban growth. Consequently, the population of urban areas increased remarkably during the Industrial Revolution. The fast pace of industrialization boosted the capitalist development, and changed the structure of the city. These radical changes

Figure 1.5: Historical Rates of Urbanization (1300-2016)



Source: OurWorldInData; Paul Bairoch, *Cities and Economic Development: From the Dawn of History to the Present*, Chicago: The University of Chicago Press, 1988.

presented new opportunities to society as well as new challenges; city became a source of wealth and higher standards of living as well as a source of anxiety producing inequality, segregation, crime, and alienation.

While these major factors emerged primarily in Europe, they eventually became diffused worldwide largely through colonialism and trade. In the second half of twentieth century, especially throughout Middle East and Latin America, governments saw urbanization as their key to modernize their societies and in the 1980s, attempts for urbanization gained a new impetus: globalization, both economic and cultural, became the main factor setting in world urbanization (Fox, 2012). In brief, Industrial Revolution established the physical, social, economic, and political preconditions of modern city and globalization became the engine of and for the capitalist city. Just like industrialization, globalization also brought with it new opportunities regarding the city but also new challenges: inequality and segregation gained a global character; there is a rapid growth in slum settlements and homelessness; industrial waste generated air and water pollution, negatively affecting human health in urban areas; cities became places of social dislocation and cultural and political alienation. In today's society too, the city continues to play a double role; it is the engine for technology, innovation and civil activism as much as environmental, social, and economic hazard to sustainable development.

1.2 Characteristics of Urban Development in Contemporary Times

Due to increase in total urban population today, world's cities are growing rapidly in both size and number. The first urbanization wave took place in North America and Europe

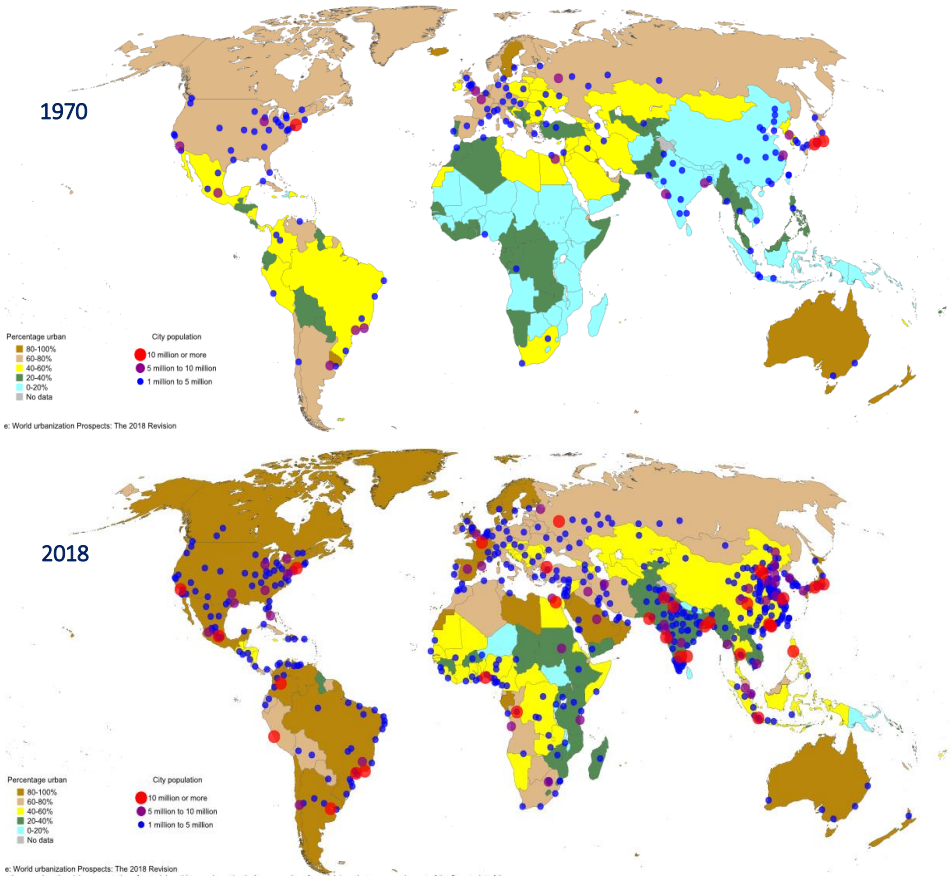
between 1750 and 1950, with an increase in urban population from less then 10% to above 50% (Figure 1.2). On the other hand, projection into the second wave of urbanization in the developing world indicate that the number of urban dwellers will go from 309 million in 1950 to 3.9 billion 2030 (Jedwab, et. al., 2015). However, the process of urbanization in the developing world is different in significant ways from the developed world.

First, rapid urban population growth is the key feature of contemporary urbanization. It took all of history until 1960 for the world urban population to reach one billion, but only 26 years to reach two billion (Seto et al., 2010). Urban population growth is the result of natural population increase and migration. Former cities had slower population growth due to the offset of births and deaths. From the 1950s onwards, medical progress and preventive measures boosted population growth in developing countries. For example, the epidemiological transition of the mid-20th century such as the discovery and consequent mass production of penicillin in 1945 and massive vaccination campaigns resulted in widespread and significant declines in mortality, irrespective of the income level. In addition, the prospect of greater employment opportunities and the hope of a better life in cities led to rural to urban migration. As a result, urban population growth rate has accelerated, including the developing world (Figure 1.2). For instance, it took a period of 130 years for London, 45 years for Bangkok, 37 years for Dhaka, and 25 years for Seoul for increasing their population from 1 million to 8 million (Hofmann & Wan, 2013).

Second emerging future of contemporary urbanization is the location. There is a shift in speed of urbanization from developed world towards developing world (Map 1.2). This has several reasons. In the late 20th century, deindustrialization -the decline in manufacturing and heavy industry- occurred in developed countries and service sector took the first place. Subsequently, industries shifted towards developing countries, changing the form of international division of labour. Formerly providing agricultural production, natural resources, and cheap labour, developing countries started to manufacture industrial production for export. In Asia and Latin America for example, urbanization is tightly linked to shares of manufacturing in GDP.

However, in some developing countries urbanisation is not so closely linked with industrialisation, what is illustrated by facts that cities typically had larger urban populations than the level of industrial employment (Scott, 2006). For example, some OIC countries, though highly urbanized, lack large industrial sectors, such it is the case with Kuwait, Gabon, Saudi Arabia, Libya, Algeria and Nigeria (Gollin et al. 2015:1). Urbanization without a matching level of industrialization marks in particular Sub-Saharan Africa's urban development process, where urbanization is characterised by informal economic sector and shanty towns, and it is driven by spending of agricultural income on consumption in cities, rather than investment in manufacturing (Fay & Opal, 2000).

Map 1.2: Urbanization Rates and Urban Agglomeration



Source: UN, *World Urbanization Prospects 2018*, The Population Division of the Department of Economic and Social Affairs of the United Nations, 2018.

The last important characteristic of contemporary urbanization is the changing form of urban settlements. As cities grow and merge, new urban configurations are formed such as mega-regions, urban corridors and city-regions. Mega-regions are natural economic units that result from the growth, convergence and spatial spread of geographically linked metropolitan areas and other agglomerations (WHO and UN Habitat, 2010). They are characterized by rapidly growing cities, great concentrations of people (including skilled workers), large markets and significant economic innovation and potential. Northern Coast of West Jawa in Indonesia is a good example of mega-region. This mega-region comprises of three metropolitan areas namely Jakarta, Bandung and Cirebon. By being the most developed and most densely populated main island in Indonesia, this mega-region dominates the urban system in Indonesia (Octifanny & Hudalah, 2017). Urban corridor, on the other hand, refers to a linear system of urban organization; cities of various sizes linked through transportation and economic axes, often running between

major cities (UNICEF, 2012). The 600 kilometres-long urban corridor linking Nigeria, Benin, Togo and Ghana for instance, drives the West African economy. Lastly, city regions are developing as the result of large cities extending beyond their administrative boundaries to engulf smaller cities and towns, absorbing semi-urban and rural surrounding areas, and in some cases merging with other intermediate cities (WHO, 2010). Kuala Lumpur in Malaysia, Jakarta in Indonesia, Istanbul in Turkey and Kabul in Afghanistan are among city-regions in the OIC countries.

1.3 Key Drivers of Urbanization in the Developing Countries

Drivers of urbanization can be categorized as demographic, economic, political, environmental and social drivers. These drivers of urbanization do not occur in isolation from each other; rather they interact and have multi-dimensional linkages (Awumbila, 2017).

1.3.1 Demographic Drivers of Urbanization

An extensive body of research explains urbanization by demographic factors. These factors include natural urban population growth, urban reclassification and migration (Kasarda & Crenshaw, 1991). All together, these demographic drivers shape and direct the process of urbanization.

Natural population growth is the difference between the number of live births and deaths during the year. Urbanization occurs when the natural population growth in the cities exceeds the natural population growth in the rural areas, and this is one prominent driver for the urbanization in today's developing world (Jedwab et al., 2015). The OIC countries have experienced a similar process: owing to improvements in health care, mortality rates have declined and birth rates have remained high since the mid-20th century. Within the OIC framework, the highest share of natural urban population growth is observed in African countries (OECD, 2016).

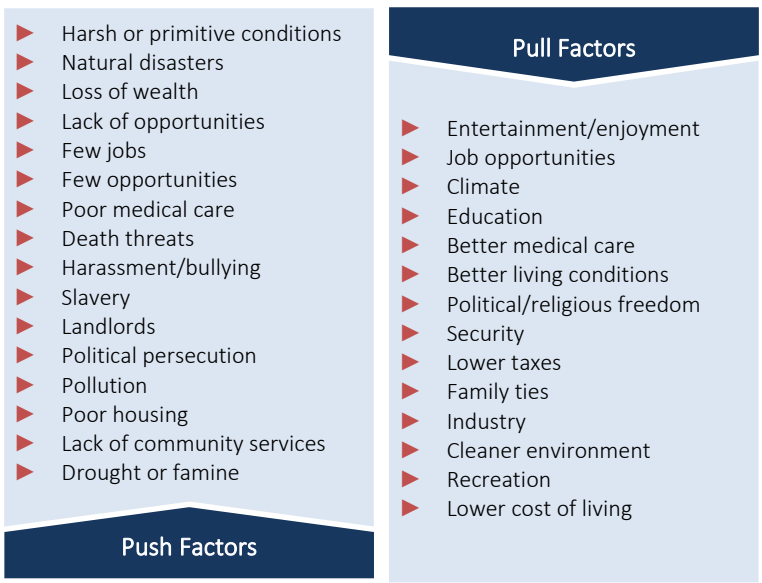
Urban reclassification is another factor that explains urbanization. It refers to the transformation and reclassification of rural areas into small urban settlements, and to the geographic expansion of urban settlements through the annexation of surrounding areas (UN Habitat, 2016). This driver of urbanization has a relatively smaller impact when compared to other demographic factors, especially migration.

Migration is the movement of people from one place to another and it can be both internal and international. International migration does not affect urban structure unless it reaches remarkable percentages of people. On the other hand, internal migration changes the dynamics of cities and necessitates certain arrangements for providing basic services. What dominates the human mobility today is the rural to urban migration (Skeldon, 2017).

Rural to urban migration is explained with push and pull factors. Push forces drive migrants out of their original locations; pull forces attract migrants to their destination locations (Borjas, 1994). It is generally argued that the push of poor living conditions (relatively low wages and lack of employment opportunities) in rural areas, the consequent excess of labour supply, and the pull of better living conditions in cities (higher wages and better employment opportunities) are major economic reasons for the rural-to-urban migration (Greenwood, 2009). In addition, political, social and environmental factors such as war, lack of social services in rural areas, and famine push also people towards urban areas (Figure 1.3).

In general, the significant part of OIC population became urbanized through rural to urban migration. Labor-related migration from rural to urban areas has historically been an important part of the urbanization process across the world. For instance, migration from rural areas accounted for at least half of all urban growth in Africa during the 1960s and 1970s, and about 25% of urban growth in the 1980s and 1990s (Brockerhoff, 1995).

Figure 1.3: Some Factors that Push or Attract People into Migration



Source: Frank R. Spellman, *Geography for Nongeographers*, Government Institutes: Lanham, 2010.
Notes: A *push factor* is a negative perception about a location that induces a person to move away from that location. A *pull factor* is a positive perception about a location that induces a person to move there.

1.3.2 Economic Drivers of Urbanization

Urban centres are accelerators for social and economic progress. The concentration of people, firms, infrastructure and institutions in one place allows innovation to occur,

generating economic activity and wealth at unprecedented rates. Today, largest economies reside in biggest cities of developed countries (UN Habitat, 2016a).

Cities often have local and global economic roles. Locally, cities ideally provide improved infrastructure (networks of roads, public transportation, power, water and sewage, waste flows, communication and broadband/Internet access etc.) as well as deliver a set of better and cheaper services. Furthermore, there is growing recognition that agglomeration in cities reduces transaction and transport costs, stimulates trade and entrepreneurial dynamism and thus allows for increased productivity (UN Habitat, 2016a). Therefore, it is not surprising that more and more people move to cities, as a response to existing economic opportunities (Fay & Opal, 2000).

A city's global role is a function of the degree of globalization and worldwide transactions reflected in interactions between cities. Especially big cities are part of globalized world, through international market connections, trade linkages and multinational enterprises. Globalization and new technologies attract people to big cities, offering the best and most diverse jobs and creativity opportunities. Global trade networks have significantly influenced urbanization levels of Lagos, Karachi, Istanbul and other OIC cities.

1.3.3 Political and Environmental Drivers of Urbanization

Conflicts, violence, disasters, weak governance, political persecution and discrimination continue to displace millions of people around the world, causing a shift in the distribution of population from rural to urban locations in some cases. For example, as of end-2016, there were, according to UNHCR estimates, around 1.8 million people internally displaced by conflict in Afghanistan, more than half of which were living in urban areas. For this reason, over the past decade, Kabul has become one of the world's fastest-growing cities.

Particularly ethnic conflicts may lead to rural to urban migration. This is due to the danger of living in an area dominated by persecuted ethnic groups during ethnic conflicts because of the high potential of ethnic cleansing in these areas. Urban areas generally have a higher level of ethnic diversity and thus may be safe-havens for persecuted groups (Fay & Opal, 2000).

Environmental change and disasters are also among important push factors for rural to urban migration. Floods, cyclones, earthquakes and prolonged droughts in OIC countries like Pakistan, Bangladesh and Sudan, lead to relocation of large populations across the regions. Recurrent droughts in parts of sub-Saharan Africa undermine livelihoods and are a principal cause for displacement of millions who rely on subsistence agriculture (SESRIC, 2017).

Government policies have great potential of reshaping urban areas. These include migration policies, land use regulations, and region favouring policies. The existence of tolerant government policies concerning religion, race, political views etc. may make

certain countries or cities more attractive to potential migrants. Similarly, official land regulations and management may pave the way for the process of urbanization to advance in particular areas.

Region favouring policies are considered as the major dimension of government policies that affect urbanization. National governments usually show favouritism to particular geographic regions or cities (Ades & Glaeser, 1995). Typically, these cities are national capitals where political representation, socioeconomic opportunities, public services and investments are more effective and population more concentrated.

1.3.4 Social Drivers of Urbanization

Social conditions play an important role in urbanization process in developing countries. There is no doubt that urban population has better access to a variety of services, including education, health, transportation, communications, water supply, sanitation and so on. In addition, urbanization provides a powerful potential for social mobilization and freedom of expression for people, including for the marginalized and excluded, and for wider participation and influence in politics and policy (UN Habitat, 2015). These social conditions attract people from rural areas and therefore foster urbanization.

Education is an impetus of urbanization as well as its favourable outcome. According to Hofmann and Wan (2013), there is a significant positive causal effect of education on urbanization rate, suggesting that one year of average schooling increases urbanization by two percentage points. Another argument regarding the education is that education is a driver of urbanization as it changes individuals' preferences towards urban environments (Hofmann & Wan, 2013). In other words, the more educated the people, the more they prefer to live in cities.

Urbanization may be driven by many other social factors. For example, migration to urban areas can provide an escape from family and cultural constraints, such as low levels of female independence (Tacoli, 1998 in Fay & Opal 2000) or religious freedom. Expectation of higher social status in cities is another factor that pushes people towards urban areas. Moreover, social connections such as presence of friends or family ties are also factors that facilitate rural to urban migration. Lastly, closeness of cultural contacts and cultural diversity may also be associated with urbanization.

1.4 Islamic Perspectives on City and Urbanization

Cities throughout the world and history reflect the values and attitudes of their society (Bartone et al., 1994). Differing cultural and historical conditions lead to different types of cities. The city then is more than a fixed material space with merely geographical characteristics. Rather, it is a social construct with dynamic socio-cultural characteristics and a symbolic meaning.

As a social construct, for one, the city is a kitchen for social life. It embodies its inhabitants' worldviews, belief and lifestyles, i.e. what critical values they live with (such as equality, justice, power, unity and division), how they relate to one another (such as community, collective identity, social class, hierarchy, gender) and how they make sense of and accordingly interact with the surrounding environment and nature (such as spatial divisions and public and private space) (Tonkiss, 2005). Values and social norms of inhabitants even determine sizes and scales, forms and shapes, orientations and proportions of buildings, the structure of neighborhoods and the style of communication (Shojaee and Paeezeh, 2015).

As much as humans shape the city, the city itself in turn influence the lifestyle of people, their everyday life experiences, their values and orientations. The city and urban facilities are also effective on nature. The interaction between 'social' and 'spatial' then is complex, covering city and nature, human and city, but also human and nature (Hayaty and Monikhi, 2016).

As a holistic way of life and value system, Islam also provides principles, to be born upon the city, marking the city with distinct social and spatial characteristics. In this section, the report explores the relation of the social and the spatial in the context of Islam. For that, it first briefly reviews the common historical urban forms and practices found among early Muslim cities. Second, it brings into attention some core Islamic values and principles through which policy-makers can re-imagine the 'good city', guide urban life and planning, and formulate new solutions to contemporary urban problems.

1.4.1 Early Muslim Cities

Both in the Western and Islamic literature, scholars have viewed Islam as an essentially urban religion and argued that Islam gave a certain impetus to urbanism in its realms (Ahmad, 1995; Fischel, 1956; Hassan, R. 1972). Some scholars have attributed this impetus to Islam's "…religious practices, beliefs and values, especially those relating to organization and authority, which emphasized the social gathering and discouraged nomadism and dispersing" (Saoud, 2002; also see Shojaee and Paeezeh, 2015). For others, "the performance of most of Islamic pillars required a fixed settlement or settled way of life" (Mortada, 2002). The medieval Islamic scholar, Al-Farabi, considered as the 'Philosopher of the City', for example, argued in his 'Fi mabadi am' ahl al-madinat al-fadila' [Book on the Principles of the Opinions of People of the Virtuous City] that "for the faithful execution of the injunctions and duties of the Shariah an urban environment was (is) necessary" (Jayyusi et. all, 2008).

Western and Muslim scholars overall agree that Arab-Muslim conquests had a major impact on cities shaping the relationships between the social (such as urbanization behavior) and the spatial (such as physical arrangement of cities) in discernible ways (Sattaria et. all, 2014). In fact, by the 11th century, according to Lapidus (1973), a well-

established historian of the Middle East, the basic structural elements of Middle Eastern city life existed throughout the region from the Nile to the Jaxartes.

Despite the scholarly agreement that the Arab-Muslim conquest has put its own mark on the urban lifestyle and built environment, the scope and content of this influence has been an issue of heated debate.

On the one side of this debate, Western orientalist scholars (see for example, Marqais, 1928; Brunschvig, 1947) developed the notion of a monolithic or a universal 'Islamic City Model' arguing that this model was shaped by Islamic teachings. A growing body of succeeding work, Muslim and Western alike, on the other side, have rejected both the notion of a universal model -emphasizing rather diversity along with unity, and the claim that the mentioned model was a product of Islamic teachings per se -highlighting instead surrounding environmental and inherited historical conditions along with Islam.

This debate and related arguments are not merely matters of intellectual discussion; they have serious and vital policy implications. In the last few decades, as the OIC member countries have started to search for new solutions to build more sustainable and satisfactory cities, urban planners have been increasingly inspired to re-plan the contemporary city on historical Islamic patterns. In this effort, they tap into to the notion of the 'Islamic City Model' treating it as some sort of standard to re-build contemporary cities and cure some of the thorniest urbanization problems (Abu-Lughod, 1987).

The critiques of the Islamic City Model (see for example, Abu-Lughod, 1987; Ahmad, 1995), however, have stressed that the model was drawn from a small and eccentric sample, mostly from North Africa (Hourani and Stern, 1970). They also highlighted that the early Muslim towns were deeply influenced by and reflected vernacular factors independent of religious principles, such as climate, terrain, technology, political variables and security.

Furthermore, although Muslims designed and developed several garrison towns, including Fusta, Medina, Jabiya, Kufa, Basra, and Baghdad (Abdulac, 1984) - some of which grew into metropolitans attracting international migration and trade (Lapidus, 1973), a considerable number of Muslim towns were extensions of existing towns and thus inherited some of their social, morphological, and layout features (Saoud, 2002, Hamdan, 1962). For example, the literature of 'Islamic City Model' claimed that one of the core characteristics of the Islamic city was a disorganized internal structure and they attributed this to the lack of municipal organization in Muslim towns in contrast to Western medieval ones (Ahmad, 1995; Abu-Lughod, 1987). A more recent body of work, however, have highlighted that this unplanned internal structure was not inherent to Islam. Rather, it was commonplace in predominantly traditional societies (see for example, Ahmad, 1995) and reflected "…a social order that had much in common with other societies based upon the family writ large (tribalism, clans, and ethnicity)" (Abu-Lughod, 1987).

The lack of a monolithic model of Islamic city does not mean that the early Muslim cities displayed no common urban structure or expression (Ahmad, 1995, Abu-Lughod 1987). On the contrary, they were marked by some shared social and spatial forms that resulted from historic inheritance and environmental conditions that encouraged common solutions. For instance, Hayaty and Monikhi (2016) argues that in early Muslim towns the alleys were long and this in large part aimed to create shadow for houses to minimize the effects of warm wind. Further, some characteristics of early Muslim towns were in fact directly shaped by Islamic principles and teachings (Shojaee and Paeezeh, 2015), while others were more complex.

1.4.2 Basic Morphological Elements and Layout of Early Muslims Cities

Early Muslim cities hosted some common layout designs and morphological elements (Shojaee and Paeezeh, 2015). The architecture and general outlook of cities were dominated by traditional Islamic structures, which reflected various aspects of the Islamic religion, culture, education, and lifestyle in general.

Among the most visible spatial formations … [were] "the court complex, mosques-school complex, autonomous neighborhoods, the bazaar [market], semi-private spaces, and introverted houses" (Amirahmadi and Razavi, 1993). German geologists (Hayaty and Monikhi, 2016) first designed the connections among these complexes and their overall layout in early Muslim towns. Among these designs, the schematic design of Dettman (1969) "shows an appropriate eastern Islamic city" (Hayaty and Monikhi, 2016). As displayed in Image 1.3, according to the Dettman design, the heart or the center of the city was occupied by the main or general mosque, where weekly Friday prayers were held. The mosque was surrounded by the market. Although not pictured in the Dettman design, many scholars have depicted the Madrassa, the center of religious and scientific teaching, to be attached to the main mosque as well (Saoud, 2002). This central area where the main mosque, the market and the madrassa were located, also hosted public activities, such as social services, administration, trade, arts and crafts, and baths and hotels (Saoud, 2002).

The palace of the governor, the Citadel, "…was surrounded by its own walls and constituted a district on its own with its own mosque, guards, offices, residence. It was usually located in the high part of the town near the wall" (Saoud, 2002).

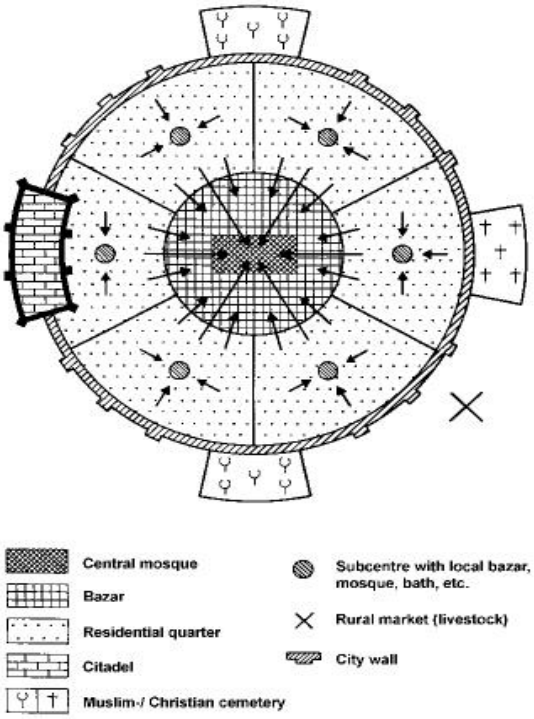
Residential areas were clusters of households; "they were dense and each quarter had its own mosque used only for daily prayers, Quranic school, bakery, shops and other first necessity objects" (Saoud, 2002). Street networks connected the residential areas to one another as well as to the palace. They were narrow, consisting of public, private and semi-private streets, as well as cul-de-sac (Saoud, 2002).

The towns were surrounded by walls and a number of gates, which provided safety and defense. Outside of towns, there were the cemeteries in addition to private gardens and fields, while behind the main gate a weekly livestock market was held (Saoud, 2002).

Islamic tradition prescribed cleanliness as a virtue for believers. For that reason, public bathhouses were a part of the urban culture and part of infrastructure of a Muslim city. (Ágoston and Masters, 2009) The baths provided not only an opportunity for cleanliness but also a public space for relaxation and social life.

In case of Ottoman towns, similarly to early Muslim cities, the Ottomans constructed towns with a wide range of building types, including religious buildings (mosques, convents/*zaviyes*), guesthouses (*tabhanes* - charitable institutions providing a shelter to poor and homeless) and schools (*madrasas* - high school and university buildings in the Ottoman system, and *mektebs* - primary schools). Ottomans also constructed libraries, commercial buildings (*arastas, bedestans* - a closed market building), hospitals (*daruşşifas*), bathhouses (*hammams*), water conveyance systems, fountains, *sebils* (small kiosks with attendants who dispensed water); bridges, as well as military buildings (castles and barracks).

Image 1.3: Schematic Design of an Islamic City



Source: Hayaty, H., & Monikhi, F., "Investigating the Characteristics and Principles of Islamic City Based on Islamic Literatures", *International Journal of Humanities and Cultural Studies,* No. 1(1).

Each mosque complex formed the nucleus of an Ottoman urban neighbourhood or town, grouped together with other buildings to form a complex or *külliye* that incorporated different public facilities such as schools, hospitals, fountains and public kitchens.

Supported by waqfs (charitable foundations), these public facilities provided free service to the people (Ágoston and Masters, 2009).

1.4.3 Islamic Principles and Urban Life

According to Abu Lughod (1987), some key Islamic elements set in motion the processes that gave rise to Islamic cities, namely:

1. *Residential segregation based on the distinction between Umma versus outsiders.* Islam's separation of Umma and outsiders led to a juridical and spatial distinction based on neighborhoods. This separation however should not be understood in the lines of an apartheid, which maintains social distance through psychical distance and uses social distance as a measure and tool of oppression and control. Instead, Abu Lughod (1987) argues, residential segregation was mostly voluntary, "…either in relation to certain economic functions (Coptic quarters near ports in Cairo) or to certain political advantages (Jewish quarters near the palace of the ruler)… Such concentrations facilitated the exercise of self-rule in matters of personal status and helped, in the proximity-based city of the time, to gather the density required to support common special services and institutions" (165). Similarly, Saoud (2002) underlines that "whilst … multi-ethnicity was physically represented in the city in the form of clusters, it was economically and socially assimilated through a sophisticated judicial system which secured equality for all groups".

2. *Spatial organization based on the segregation of the sexes.* Islam's encouragement of gender segregation resulted in a set of architectural and spatial essentials. In fact, for Abu Lughod (1987) "the creation of male and female turf is perhaps the most important element of the structure of the city contributed by Islam" (167). Abu Lughod (1987), however, also asserts that "…the rules of turf were not only to establish physically distinctive regions… they were to establish visually … insulated regions" (167). In other words, the object of urban design was the line-of-sight distance rather physical distance. The religious imperative to guard privacy shaped both social and spatial organization by using architecture, including for example, placements of windows and the height of buildings.

3. *The legal system of property and the cellular pattern.* Islam's system of property laws and the hierarchy of rights and obligations led to a process whereby a pattern of space was continually reproduced. Among the rights and obligations regarding property, the pre-existing rights of individual or collective users of land and immoveable property had the utmost importance. This was followed by the rights and responsibilities of proximate and then more distant neighbors, and lastly, the right of the collectivity or larger administrative unit. This particular hierarchical system and differential responsibility "…may have been

partially responsible for the typical cellular pattern found in residential quarters of medieval Islamic cities". (Abu Lughod, 1987).

4. *Neighborhood as the key building block of the city.* Rappoport (1977) defines Islamic cities as a set of heterogeneous neighborhoods, each composed of homogenous residents with specific language, ethnic, occupation, and family life. This structure of neighborhood was not something derived from Islamic teachings per se; it was shaped rather by land characteristics and cultural-social factors before Islam (Sattaria et. al, 2014). However, under Islam, neighborhoods turned into the building blocks of the city.

For Abu Lughod (1987), this vital function of the neighborhoods was a result of the state's noninterventionist attitude toward the residential neighborhood, which left important functions to the care of neighborhoods:

> "Many of these functions were vicinal (maintaining streets and utilities, guarding turf, providing lighting, supervising and sanctioning behavior etc.), many vicinal units were composed of socially related people, and neighborhood became a crucial building block of cities in the Arab world during medieval and even later times. In line with the segregation between commercial and residential quarters -attributed to the need to separate private (i.e., female) from public (i.e., male) space- neighborhoods handled many of their internal functions on a more ad hoc basis. Having functions that could only be performed on a neighborhood-wide basis certainly strengthened the cooperation within the district."

This argument is line with other works, which pictured neighborhoods in the early Muslim cities having all necessary services including mosque for daily prayers, bathroom, bakeries, and markets, resembling, as such a small city (Rappoport, 1977; Sattaria et. al, 2014).

Lapidus's work, on the other hand, brings an additional explanation forward for why the neighborhoods turned into the building blocks of the city in early Muslim towns. Lapidus argued that, under Islam, the clustering of neighborhoods increasingly became to be based on religious affiliation (umma versus others) as well as the Muslim schools of law; and this type of clustering played a fundamental role "…in forming a cohesive social and religious life" (1973)

Abu Lughod (1987) highlights the role of neighborhood as protector. Other scholars further confirm this arguing that the control of city was provided through independent units in neighborhoods. In fact, each neighborhood had its own guardian who considered people's views and expectations in addition to resolving their problems (Sattaria et. al, 2014).

In a nutshell, neighborhoods in early Muslim cities carried out the vital tasks of providing necessary public services, providing security and control, and providing a sense of solidarity, belonging and collective identity.

1.4.4 Could Islam Provide Alternative Imagination for the Contemporary City?

For the large part of the 20th century, urbanization was understood merely in economic terms focusing on industrialization and economic growth. Similarly, for urban planners remedying problems of the city mainly meant the reduction of visual squalor or unsatisfactory formal quality of the urban environment (Mohamad, 1998). This approach, which ignored ecology, morality, and equity, has proven to be ineffective in the face of complex problems generated by an ever-increasing rate of urbanization.

Islamic thought, on the other hand, emphasized both material and non-material aspects in defining the good and satisfactory city. Al-Farabi, for example, defined the good city as where "men come together and co-operate with the aim of becoming virtuous, performing noble activities, and attaining happiness." Following Plato, he asserted that town communities are the best of the perfect societies where knowledge may be attained and justice and order may prevail (Mohamad, 1998).

A growing body of scholars coming from different disciplines has been tapping into Islamic historical patterns, principles and practices in an effort to bring about a culturally appropriate, richer, and a more effective definition of -and tools for- sustainable development in Muslim countries. In fact, "defenders of sustainability admit that traditional cultures and ideologies comprise ideas and values on which sustainable living should be based" (Mortada, 2002). Matali (2012), as shown in Box-1.1, for example, retrieved some key concepts of the Quran, such as adl (justice) and Haq (trustfulness and rights), on which sustainable development philosophy and behavior can be remodeled.

In addition to a general philosophy on sustainable development, Islam also provides principles that guide the urban life and urban environment itself (Mortada, 2002). For example Mohamad (1998) identifies both positive values -such as iqtisad (moderation), ihsan (kindness), amanah (honesty), infaq (spending to meet social obligations), sabr (patience) and istislah (welfare)- and negative values -such as zulm (tyranny), bukhl (miserliness), iktinaz (hoarding of wealth) and israf (extravagance)- that Islam and the Quran offer and that are to inform, limit, and guide urban behavior and life. Even more general term *adab* specifies, inter alia, a custom or norm of conduct that makes one polished and urban (Martin, 2004). All these values can shape and delineate parameters in producing the built environment as well: "the principles of design, the methodology of architecture, the materials used in the construction, the form and structure of the buildings and their relationship with the natural environment, and the attitudes, motives and the world-view of the people involved in the system" (Mohamad, 1998).

Box 1.1: Qur'anic Concepts for Sustainability

1. *Adl (Justice)* - governing human relationships and other living creatures;
2. *Mizan (Balance)* - governing both human social and economic relationships but also the environment, especially in ensuring the equilibrium of nature, the use of resources and life cycle of all species;
3. *Wasat (Moderation*) - choosing the middle path in economic planning, social conduct, scientific pursuits, ideological views, material, water and energy consumption;
4. *Rahmah (Mercy)* - governing all aspects of human relationships and treatment of all living animals, plants and insects including micro-organisms;
5. *Amanah (Custodianship)* - Humankind is considered to be a trustee appointed by the Creator, for all earth's assets;
6. *Taharah (Spiritual & Physical purity*) – generating a clean economy devoid of usury and deceitful marketing techniques and business transactions; cleanliness that would generate a healthy society devoid of air and water pollution; generating contented individuals through spiritual purity, conscious of the presence of his/her Creator, that would result in a balanced society, living in harmony with the environment;
7. *Haq (Truthfulness and Rights)* Truthfulness in all dealings that recognizes the respective rights of others (humans, animals and plants);
8. *Ilm Nafi' (Knowledge and science*) - Knowledge, whether theological, scientific or technological, must be beneficial to others (individuals and society) including future generations.

Source: Z.H. Matali, ''Sustainability in Islam'', *Exploring Synergies between Faith Values and Education for Sustainable Development*, R. Clugston & S. Holt (Eds.), UNESCO Chair on Education for Sustainable Development and the Earth Charter, 2012.

Haider articulates three formative values that would mingle design principles with the ideals of an Islamic environment: environmental sensibility, morphological integrity and symbolic clarity (Haider, 1984):

> "…environmental sensibility implies that the design of Islamic environment must show respect for natural topography such as land form, water bodies and woodlands and the climate to which it must respond. Morphological integrity requires sensitivity towards size, scale and quality, maintenance of private and public intimacy and an appreciation of human scale. Symbolic clarity requires respect for tradition and culture" (Mohamad, 1998).

In fact, the human's positioning as the Khilaf, the inheritor or vicegerent of God, may be one of the most straightforward ways Islam and Quran set humans' divine responsibility

towards their social and spatial environment. This position as best put by Mohamad (1998) "commits Muslims to take time and space seriously" (125).

As the Khilaf, humans are ordered to utilize the natural resources while preserving the natural balance (Mortada, 2002). To achieve the balance between utilization and preservation, Islamic principles and values provide a road map and instructions. Mortada (2002), for example, based on traditional verdicts ruled on lawsuits in the traditional environment of early Muslims, reports some key principles or guidelines that can be applied in urban design in respect to balancing utilization and preservation of natural elements (721-722):

- Islam emphasizes the right of everyone to natural elements such as sunlight and air. In the traditional Muslim environment, it was prohibited to create any element in or modify the house in such a way that sunlight and natural air was prevented from reaching neighboring houses.
- Sharia also prohibits the spoiling of air by smoke from other houses, and it considers causing a nuisance to neighbors by smoke as an act of damage.
- Similar to smoke, excessive smell should not be allowed to offend others.
- Several traditional jurists disallowed any source of noise that caused discomfort to inhabitants. Noise was regarded as a harm, which should be prevented.
- Any source that generates extreme heat and disturbs people was disapproved. As a result, residents' rights were supported by keeping or moving unneeded industries such as building material and comparable factories to the peripheries of the city.

Similarly, Mohamad (1998) argues that a large part of Islamic law on resources is driven from the principle of inducing no harm to others while utilizing natural resources. In line with this core principle, according to Islamic law, "invaluable resources such as pasture, woodland, wildlife, certain minerals and especially water cannot be privately owned in their natural state or monopolized…" (133). Rather, these resources are to be managed publicly ensuring equal access to everyone, and monetary benefit these resources generate should permeate to all and not diverted to a specific group (Mortada, 2002).

The core principle of inducing no harm to another -intrinsic to humans' position as the Khilaf- is not limited to the relationship between humans and nature but includes equally importantly humans' relations to one another and to other living creatures. Preventing abuse of any natural element preserves not only natural element but it also "protects people's rights to the natural environment" (Mortada, 2002)

Humans are to utilize nature for growth and prosperity; however, resources should be kept for benefiting other members of the society. In fact, "in the early days of Islam, the surplus of income, after keeping the consumption to the minimum, was set aside to meet socio-religious needs of the economically deprived (the maintenance of kith and kin, orphans, widows)" (Mohamad, 1998).

This emphasis on collective and individual self-constraint does not mean that Islam forbids private property ownership or that Islam is an ascetic religion preaching miserable living and conditions whether this regards to housing or urban design. Rather, Islam requires Muslims to cultivate their faculties and God's bounties. Yet, humans have to realize balance and harmony in their relations with both men and nature. As such, the exercise of private property rights or consumption, are circumscribed by the greater needs of the community, and the individual is forbidden to use his property in ways resulting in net harm to society (Mohamad, 1998).

In sum, Islam's approach to urban sustainability can be defined as a holistic one, which accentuates the organic interlinkages among economy, society and nature, and accordingly, articulates urban sustainability as an equilibrium among ecological sustainability, social solidarity, and economic justice. This approach allows Islam as religion and social system, to play a role in providing sustainable solutions to the urban challenges of this century.

CHAPTER TWO

Urbanization in OIC Countries: Current State and Trend Analysis

The OIC countries are currently home to more than 23.9% of the world's population and around 21.8% of global urban population. The OIC population in urban areas grew by 496.8 million people between 1990 and 2016, and it is foreseen that in 2050 the OIC area needs to accommodate around 1.7 billion urban dwellers.

The economic dynamism of cities provides livelihood opportunities not found in rural areas. It is expected for next decades that growth of population in OIC urban areas will happen much more due to growing internal mobility than to birth rate.

Urbanization and economic development usually go hand to hand. However, current urbanization pathways of OIC cities do not promise prosperity gains for all, particularly in those cities where infrastructure and service delivery are already under pressure of rapidly growing population. It is therefore crucial to understand dynamics and growth of OIC cities, in order to be able to accelerate their contributions to social and economic progress.

This section examines the urbanization trends in OIC countries, with references to historical values going back to 1950 and projections until 2050. It also includes assessment of the rapidly urbanizing OIC countries, and a distributed analysis of the concentration of population, alongside with urban-rural structure of population.

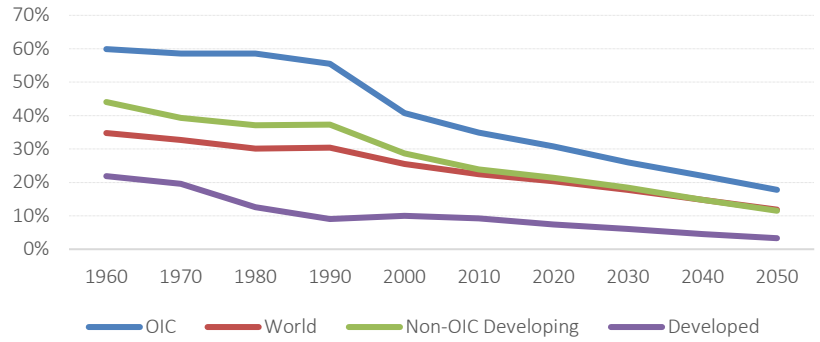
2.1 Trends in Urbanization

Urbanization is not a recent phenomenon. As explained in the previous chapter, huge cities began to grow in response to the Industrial Revolution. Until the Industrial Revolution, the share of the world's population living in cities was consistently around 10% or less (see Figure 1.5). In 1950, only 30% of the world's population was urban. After 1950s, the urbanization gained momentum globally. In 2008 for the first time in all of human history, the number of people living in cities surpassed those living in rural areas. In 2018, world urban population increased to 55%. UN projections indicate that by 2050 world urban population will reach 66% (Figure 2.1). This urbanization trend is estimated to add 2.5 billion to world's urban population, with nearly 90% of the increase concentrated in Asia and Africa.

The global distribution of urbanization is shifting in a fundamental way. In 1950, the European and North American populations constituted 53% of the world's urban population. However, by 2050, forecasts announce that instead of 53%, it will constitute only 15% of the world's urban population.

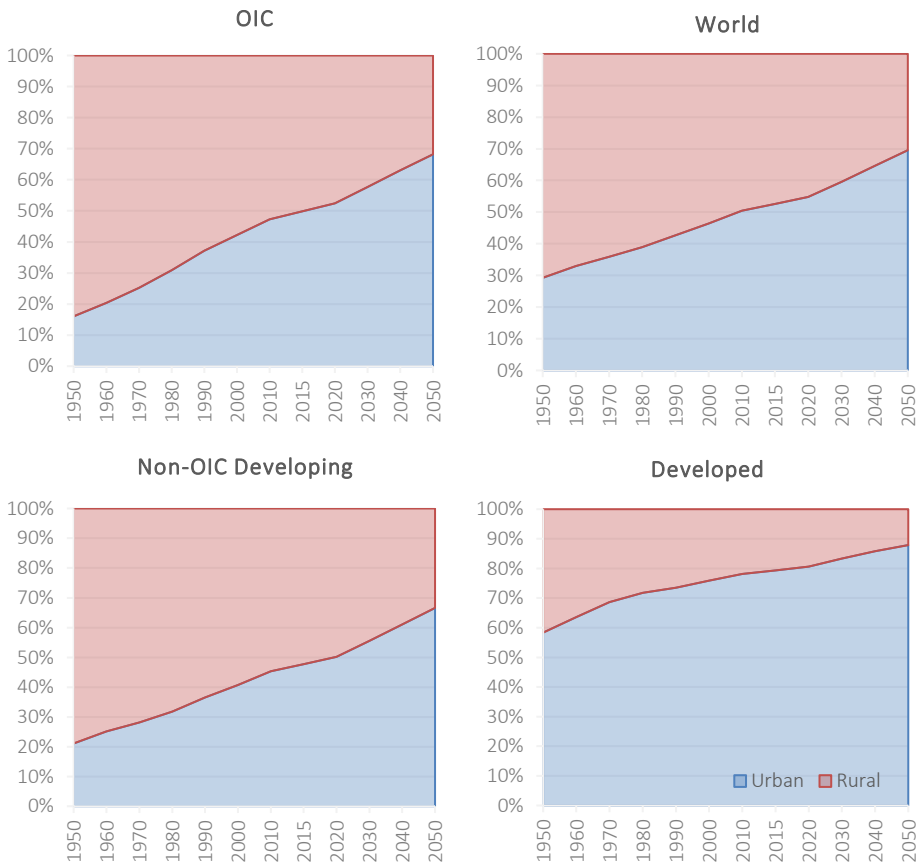
As shown in Figure 2.1, from 1960 until today urbanization in developing countries has proceeded faster than in developed ones, indicating to a tendency toward convergence of urbanization rates across regions of the world. Particularly the OIC countries are urbanizing more rapidly than the other country groups and the world average. Over the last decade, the rate of urbanization in OIC (measured as the average annual rate of change of the urban percentage) was accounted over 3% per annum, while the average annual urbanization rate has been measured around 2% globally and less than 1% in developed countries (Figure 2.1).

Figure 2.1: Average Rate of Change in the Percentage of Urban Population (1950-2050)



Source: UN Habitat
Notes: OIC N = 56; Non-OIC Developing N = 122; Developed N = 38; World N = 216.

Figure 2.2: Urban and Rural Population as Poportion of Total Population (1950-2050)



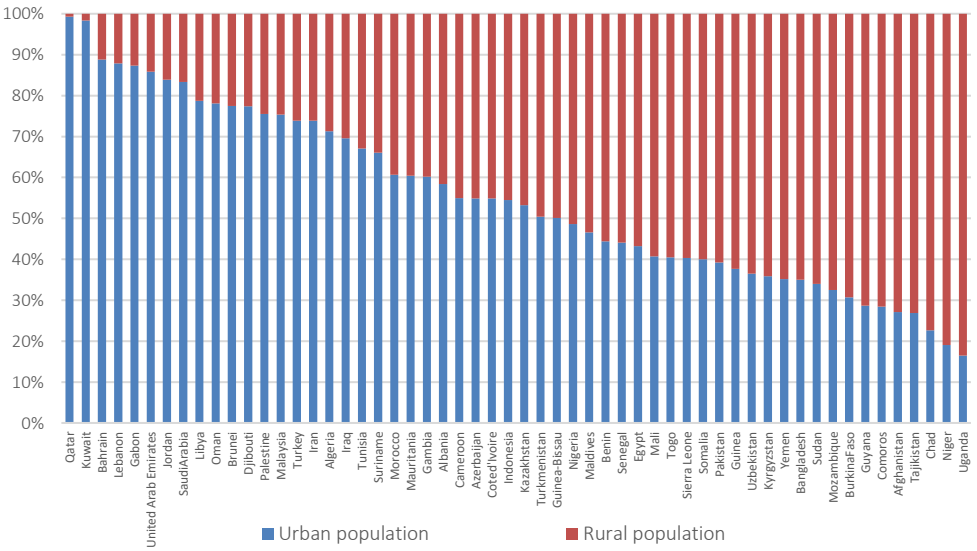
Source: UN Habitat
Notes: OIC N = 56; Non-OIC Developing N = 122; Developed N = 38; World N = 216.

Figure 2.2 demonstrates that recently the urban population in OIC countries, in average, exceeded 50% of the total population. However, in 2016 only 31 OIC countries had a population that is over 50% urban. With growing urbanization, by 2050, 68.2% of the OIC's population is expected to become urbanized.

Over the last century, urbanization has slowed down in most of the developed countries. As shown in the Figure 2.2, the developed countries are already almost completely urban. During 2010s, the urbanization rate in developed countries was around 80-90%. Urbanization is currently sweeping through developing countries. It is projected for next decade that more than half of population in developing countries will live in urban areas.

The OIC's urbanization process is not happening in the same nature or at the same pace in all the member counties. For instance, Qatar and Kuwait are among the world's 20 most urbanized countries, while urbanization levels in Bahrain, Lebanon, Gabon, United Arab Emirates and Saudi Arabia are above 80%. On the other hand, Uganda, Niger, Chad, Tajikistan, Afghanistan, Comoros, Guyana and Burkina Faso are in the list of world's 20 least urbanized places. In total, 19 OIC countries remain mostly rural, with at or under 40% of their population living in urban areas (Figure 2.3). Over the coming decades, some OIC member countries, mostly in Africa and Central Asia, are expected to remain less urbanized, compared to other regions of the world.

Figure 2.3: Urban and Rural Population in the OIC Countries



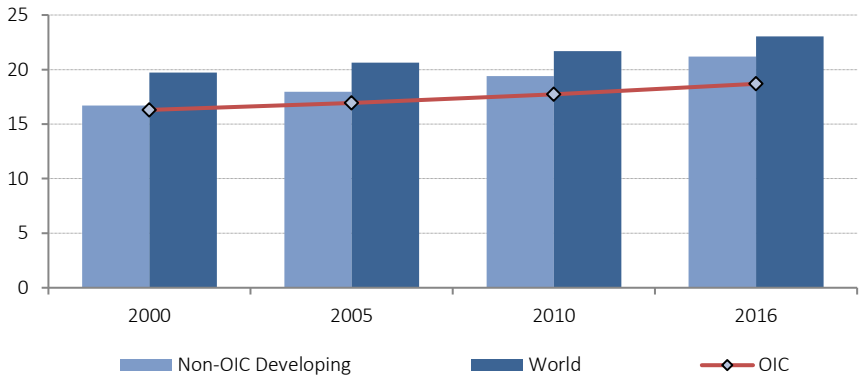
Source: Wold Bank.

The rapid urbanization seems to have been accompanied by excessively high levels of concentration of the urban population. It has also increased the level of urban agglomerations. Figure 2.4 demonstrates that today 23% of the world population lives in urban agglomerations

of more than 1 million people. This ratio is still below 20% in OIC area, but a rising trend is observed during the last two decades.

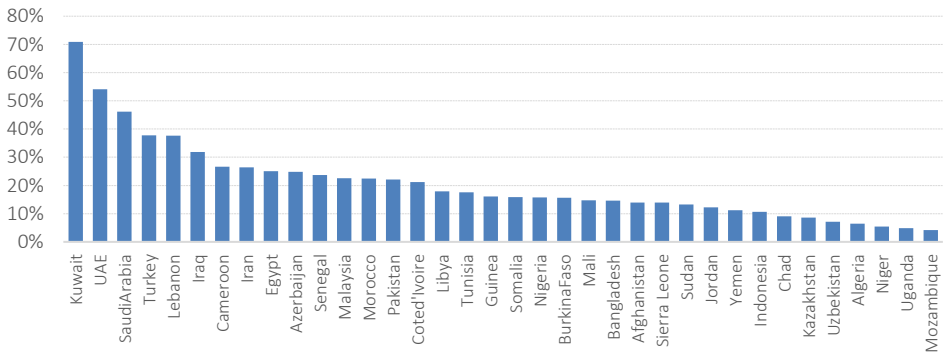
Within the OIC the highest number of population in urban agglomerations of more than 1 million is found in Kuwait (71%), followed by United Arab Emirates (54%), Saudi Arabia (46%), Turkey (38%), Lebanon (38%) and Iraq (32%). On the other side, the lowest amount of urban agglomerations of more than 1 million is observed in Mozambique, Uganda, Niger, Algeria, Uzbekistan, Kazakhstan and Chad, with the shares less than 10% in 2016 (Figure 2.5).

Figure 2.4: Population in Urban Agglomerations of More than 1 Million (Percentage of Total Population)



Source: UN Habitat.
Notes: OIC N = 56; Non-OIC Developing N = 122; Developed N = 38; World N = 216.

Figure 2.5: The OIC Population in Urban Agglomerations of More than 1 Million (Percentage of total population, 2016)



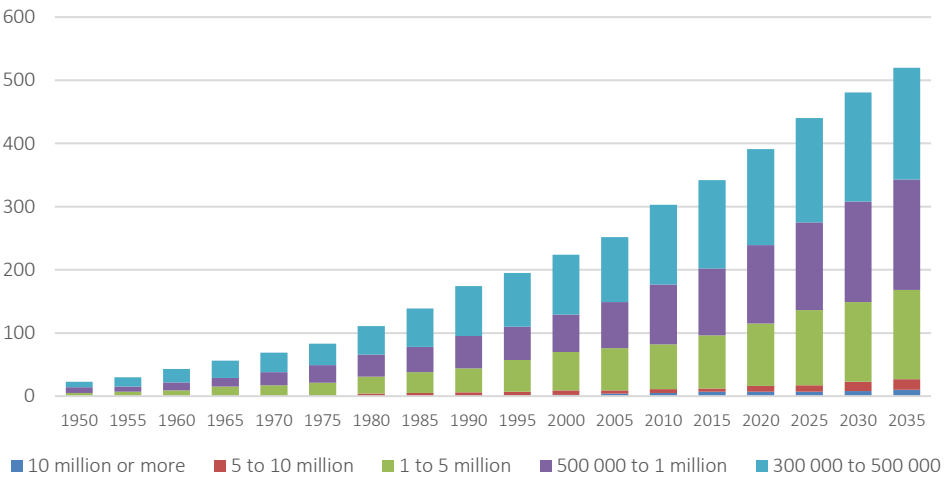
Source: UN Habitat.

2.2 Change in Dynamics of Cities

Together with the global distribution of urbanization, the dynamics of the world's cities have also been changed. In 1950, New York was the world's largest city and with Tokyo, they were the first megacities, with 10 million and more inhabitants. In 2015, of the 29 urban agglomerations with more than 10 million people, only five were from today's developed world. After Tokyo, Delhi is now the 2nd and Shanghai the 3rd largest city, followed by Sao Paulo, Mumbai and Mexico City. By 2035, 48 urban agglomerations are projected to have populations of at least 10 million each.

Over the last two decades, the cities with more than 10 million have become more visible also in the OIC: while there was only one megacity (Cairo) in 1995, the number of megacities in OIC area reached to seven by 2015. Number of OIC megacities is projected to rise to 10 by 2035, constituting 21% of the global megacities (Figure 2.6). In 2016, five OIC cities (Cairo, Dhaka, Karachi, Istanbul and Lagos) were ranked within the 20 biggest megacities of the world.

Figure 2.6: The Number of Cities with at Least 300.000 Inhabitants in OIC (1950-2035)



Source: UN, Department of Economic and Social Affairs, Population Division.
Notes: OIC N = 57.

Although large cities are in some way the leading edge of urbanization because of their influence and economic importance, they are not the fastest growing. The fastest growing urban centers are the small and medium cities with less than one million inhabitants, which account more than 50% of the world's urban population (WCR, 2016). In 1950, total number of world cities with half a million and more inhabitants was 177. Europe and the U.S. had the greatest concentrations of these cities. There were also many large cities in Asia (especially in China and India) and Latin America, while Africa had only five cities with half a million and more inhabitants. In 2015, the number of cities with at least half a million inhabitants in the world reached 1067. By 2035, projected 1517 world cities will have at least half a million

residents. Similar trend is also visible in the OIC geography, where the number of cities with half a million people or more reached from 14 in 1950 to 202 in 2015, and is expected to increase to 343 by 2035 (Figure 2.6).

Box 2.1: The Five Largest OIC Cities

In 2018, there are around 7.6 billion people in the world. 1.3 billion of them are living in metropolitan areas* of 150 largest cities. Out of 150 largest cities in the world, 39 are located in the OIC area (14 of them are capital cities) with a total metro population of 286,239,000. The remaining 93 largest cities are located in other developing countries (787,805,000 persons) in addition to 18 in developed world (180,713,000 persons).

The largest urban aglomeration in the OIC area in 2017 is Cairo, Egypt, with a population of 19.5 million. Cairo is followed by Dhaka, Bangladesh (19 million people), Karachi, Bangladesh (17.7 million), Istanbul, Turkey (14.5 million) and Lagos, Nigeria (14.3 million). Each of these OIC largest cities are home to more people than many countries in the world.

When ranked by PPP adjusted GDP among 300 largest metropolitan economies in the world, in 2014 Istanbul, Turkey, with 348,721 million dollars is a richest city in the OIC area. Jakarta is in second place (321,315 million dollars), Abu Dhabi, the United Arab Emirates, in the third (178,256 million dollars), Kuala Lumpur, Malaysia in the fourth (171,772 million dollars) and Kuwait City in the fifth place (166,452 million dollars).

Ranking by PPP adjusted GDP per capita among 300 largest metropolitan cities in the world, with 61,009 dollars puts Abu Dhabi at the first place among the OIC cities in 2014. Kuwait City is in the second place (55,171 dollars GDP per capita) and it is followed by Almaty, Kazakhstan (35,298 dollars GDP per capita), Kuala Lumpur (28,076 dollars GDP per capita) and Istanbul (24,867 dollars GDP per capita).

* Please note that there is no internationally agreed definition of metro areas. In general, metropolitan area is the area of active interactions between a city and its surroundings. It refers to a major city together with its suburbs and nearby cities, towns and environs over which the major city exercises a commanding economic and social influence.

Source: UN Population Division; "Largest Cities in the World in 2018", Citymayors.com; *Global MetroMonitor 2014: An Uncertain Recovery*, the Brookings Institution, Metropolitan Policy Program, 2015.

The "Theory of the Primate City" as pronounced by Mark Jefferson (1939) says that a country's leading city is always disproportionately large and exceptionally expressive of the national capacity and feeling. The primate city is commonly at least twice as large as the next largest city and more than twice as significant. The primate city is usually the national capital, a financial and cultural center, the focus of internal migration and the multi-functional nucleus of a country's economy (WCR, 2016). In the six OIC countries (Kuwait, Afghanistan, Senegal, Burkina Faso, Egypt and Lebanon), more than 50% of the urban population is concentrated in a single city of more than one million inhabitants (Kuwait City 79.7%, Kabul 54.5%, Dakar

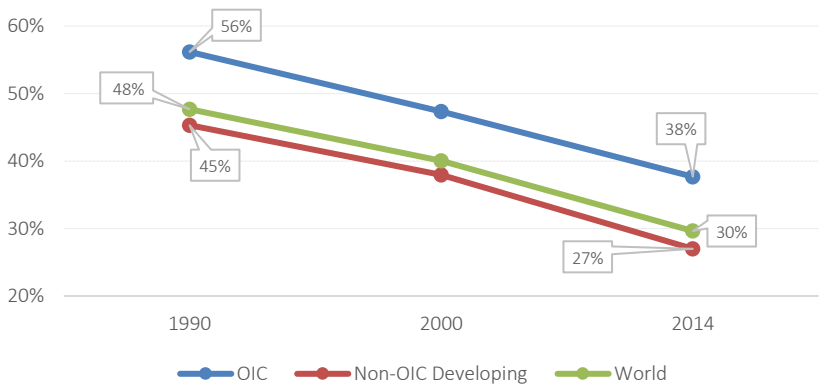
53.9%, Cairo 51.5%, Ouagadougou 51.1% and Beirut 50.7%) (UN, 2016). Some primate cities in OIC area are demographically larger and therefore tend to be more economic diverse and more productive, with higher income levels.

Overall, as cities are growing at a rapid rate and with increasing urban populations, they need to be built faster and more effectively. Growing cities are not only dense in terms of land use, but their diverse social and economic fabric makes them challenging to govern. As is understandable from Box-2.1, unlike nation states, the de-jure and de-facto boundaries of cities are different. The boundaries where a functional (or economic) city begins and ends are difficult to define, often creating friction between the administrative entities that govern it (WEF, 2016).

2.3 The Growth of Slums

During 1960s and 1970s, international agencies began to focus their urban development efforts on improving housing and basic services. The enormous growth of cities - largely through rural-urban migration, and the challenge of organizing adequate housing placed the emphasis on large-scale public schemes to build low-cost, affordable housing (WCR, 2016). The statistics on the incidence of slums over time reflect some notable improvement (Figure 2.7). Recent estimates provided by UN, show that the proportion of the urban population living in slums decreased from 48% in 1990 to 30% in 2014 globally. A similar trend is observed also in the OIC area. As shown in the Figure 2.7, in 35 OIC countries for which data is available, the proportion of urban population living in slums went down from 56% in 1990, to 38% in 2014.

Figure 2.7: Slum Population as Percentage of Urban



Source: UN, Millenium Development Goals Indicators.
Notes: OIC N = 35; Non-OIC Developing N = 48; World N = 83.

Although the slum population as percentage of urban population has performed downward trend, the absolute number of slum dwellers in the world is on the rise in both global level and

the OIC area. This implies that there is still a long way to go in many countries, in order to reduce the large gap between slum dwellers and the rest of the urban population.

According to UN Habitat estimates, the world urban slum population in developing countries increased 22% between 1990 and 2014 in absolute number (UN Habitat, 2016). In 20 OIC member countries with available data, the slum population went up more dramatically and the total growth between 1990 and 2014 accounted near 30% (Figure 2.8). In 2014, near 232 million people was living in slum conditions in 35 OIC countries.

Figure 2.8: Urban Slum Population (2014)

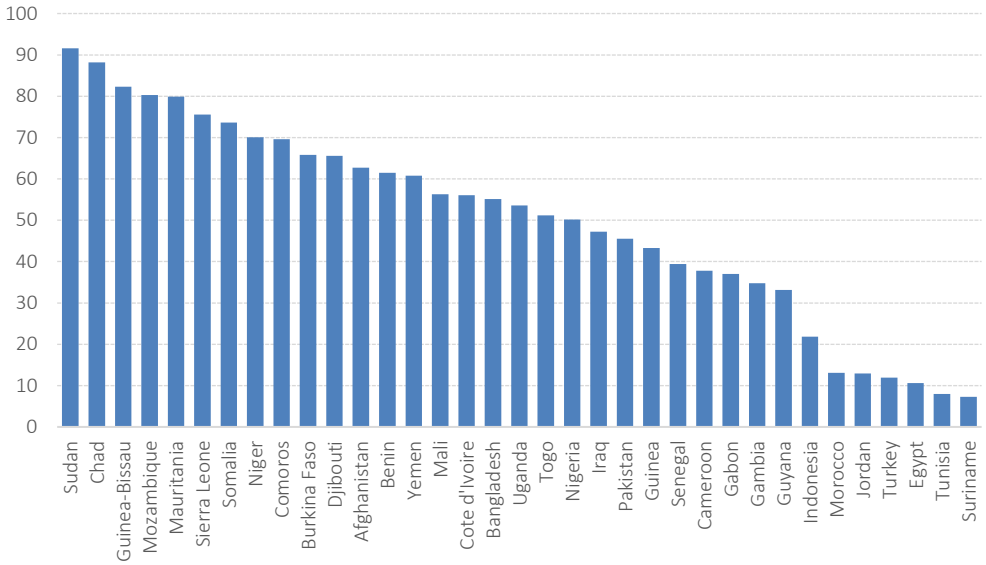
Source: UN, Millenium Development Goals Indicators.
Notes: OIC N = 35; Non-OIC Developing N = 48; World N = 83.

At the country level, although many OIC urban dwellers still live in slums, some members have clearly decreased their numbers as a proportion of the total urban population over the last two decades. For example, the incidence of slums in Suriname and Tunisia was accounted fewer than 10% in 2014. However, 20 OIC member countries, with available data, reported over 50% of slum population as percentage of urban population in 2014. Among them, Sudan (91.6%) had the highest proportion of the urban population living in slum conditions, followed by Chad, Guinea-Bissau and Mozambique, where the proportion of the urban population living in slums is accounted over 80% (Figure 2.9).

It is obvious that the slum challenge continues to be one of the faces of poverty, inequality and deprivation in many cities in developing world, including the OIC countries. The main reasons of this prominent challenge in developing countries are failed policies, poor governance, corruption, inappropriate regulation, dysfunctional land markets, unresponsive financial systems and a lack of political will (UN-Habitat, 2003). There is still a long way to go in many countries, in order to reduce the large gap between slum dwellers and the rest of the urban population.

Unfortunately, the OIC Programme of Action 2025 does not include housing and slum upgrading among its goals (OIC, 2016). Given the share of national urban populations currently residing in slums or informal settlements, the OIC countries need to adopt remedial measures that aim at reforming urban housing sector, thus to avoid long-term development gaps.

Figure 2.9: Slum Population in the OIC Countries as Percentage of Urban Population (2014)



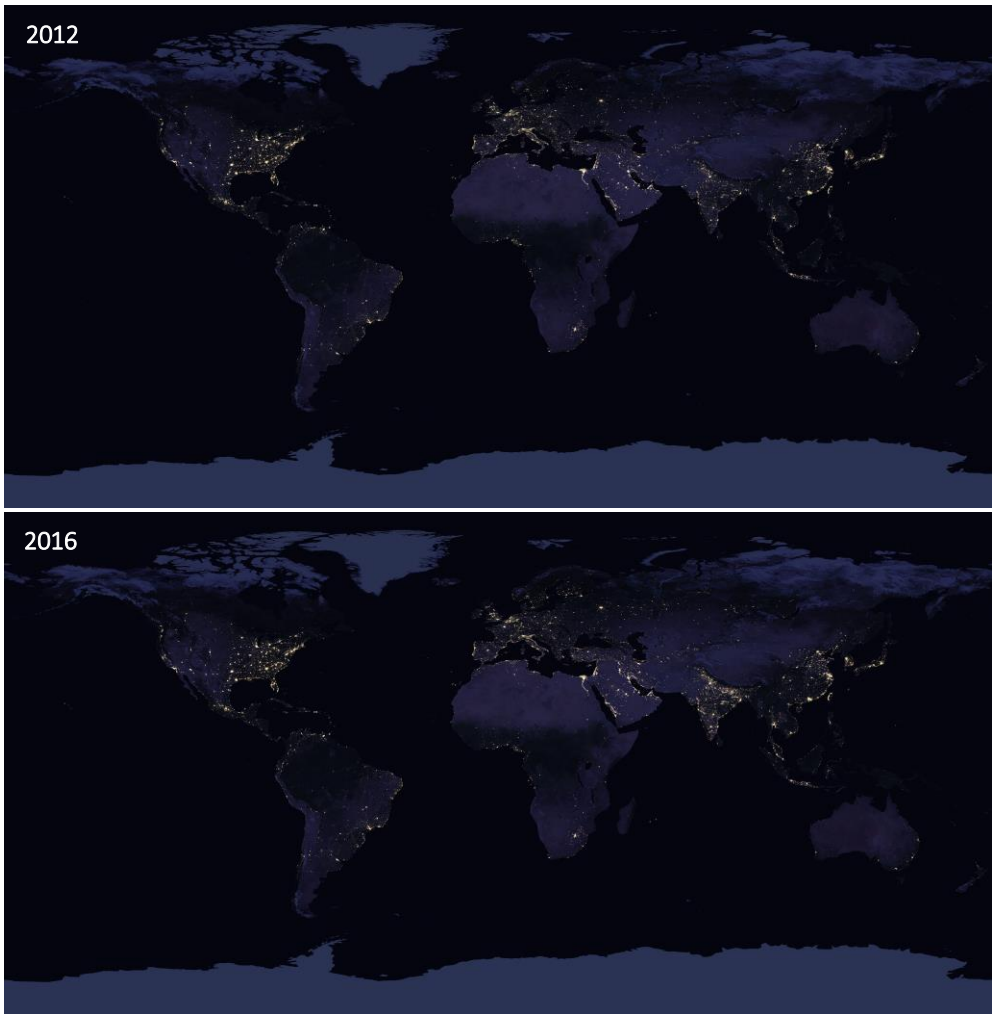
Source: UN, Millenium Development Goals Indicators.

2.4 Measuring City Development through Nightlights

Wherever there are cities, there are city lights. Satellite images of Earth at night - often referred to as "night lights", are a very appealing instrument to measure economic activity and economic growth of cities. Just by looking at the pictures, it seems quite intuitive that there must be some kind of positive relationship between emitted light and level of economic development (Pestalozzi, 2013). Light comes mainly from nocturnal illumination of streets, buildings and industry areas. Since the resolution of a pixel is about 2.7 square kilometer, the light sources have to be very dense and constant to produce a bright pixel. Thus, brighter pixels indicate the presence of dense urbanized areas.

NASA scientists are releasing global maps of Earth at night, providing the clear views of the patterns of human settlements, i.e. how humans have shaped the planet. The maps presented in Map 2.1 show Earth's night-lights as observed in 2012 and 2016, enabling for comparation of light sources in a given period. The first observation from these maps is a fact that the Eastern U.S., Europe and Japan are brightly lit by their cities, while the interiors of Africa, Asia, Australia and South America remain dark and most probably lightly populated. Antarctica is entirely dark.

Map 2.1: Earth at Night (2012, 2016)



Source: NASA Earth Observatory.

The brightest areas of the Earth are the most urbanized, but not necessarily the most populated. Actualy, these maps are more usefull to measure the spatial extent of urbanization. In this context, second observation from Map 2.1 is a fact that cities tend to grow along coastlines and transportation networks. For that reason, even without the underlying map, the outlines of many continents would still be visible.

It is obvious from the Map 2.1 that the OIC countries are not among the brightest areas of the Earth. Most of them remain to be much darker compared to the developed countries. Still, from 2012 to 2016 more lights are beginning to appear in many OIC countries, pointing out to the rapid urbanization process.

As it is known, economic corridors have gained popularity over the past two decades as a vehicle for sub-regional economic development. Map 2.1 demonstrates that in 2016, inter-

state economic corridors have become much more visible in developing world. Among the OIC countries, the Gulf States, Turkey, Malaysia and Indonesia seem to be able to increase their light emissions, forming regional economic corridors, where the rapid increase in luminosity indicates to developmental and investment inflow potentials.

It is obvious from the analysis above that in upcoming decades the OIC countries will undergo a rapid process of urbanization. Larger and larger percentage of the population will move towards the cities. While increasing urbanization may have some positive impacts, the OIC countries have to be prepared for the negative long-term effects.

CHAPTER THREE

Sustainable Urbanization and the New Urban Agenda

We are living in the world where 'domestic' and 'foreign' dimensions have been weakened and where global issues increasingly affects citizens more directly, be it socioeconomic issues, climate changes or security issues. Cities found themselves at the frontlines of many global trends. That is why global development agenda has entered into a stage, which creates the need for stronger backing of local level development and city-to-city collaboration.

In general, cities are aware of their new roles in addressing earth's challenges. They tend to watch each other, learn from each other and solve their problems through replicating smart examples. While acting locally, cities are bringing added value to the national and global efforts in achieving sustainable development goals.

Data provided by the UN Population Division on the most rapidly expanding cities (in terms of population) confirms that the largest part of global urban population growth was expected to happen in cities and urban areas of developing countries. In 2015, 30 fastest growing cities with a population of at least 750 thousand where all in developing countries, with 13 of them belonging to the OIC member countries. Batam (Indonesia), Ouagadougou (Burkina Faso), Nnewi (Nigeria), Abomey-Calavi (Benin) and Bamako (Mali) are among fastest growing OIC cities, all of them growing over 6% annually (UN, 2018).

It is important to understand that urbanization is not anymore only demographic process. It is a multidimensional process where non-demographic drivers such as urban form and function, institutions, governance structure, lifestyles, attitudes and consumption patterns interact and amplify changes in urban areas (Seto et al., 2010). For that reason, ability of cities to facilitate sustainable growth will remain limited without properly understanding of the contemporary urbanization patterns.

Rapid growth of cities, particularly in unprepared countries and those with stressed budgets, may lead to a several problems: some socioeconomic (challenges related to food, energy and water security, education and unemployment, lack of housing, resource depletion etc.), some environmental (increased flooding, droughts, heat waves, deterioration in the fertility of soil, increase in waste products etc.), and some a bit of both.

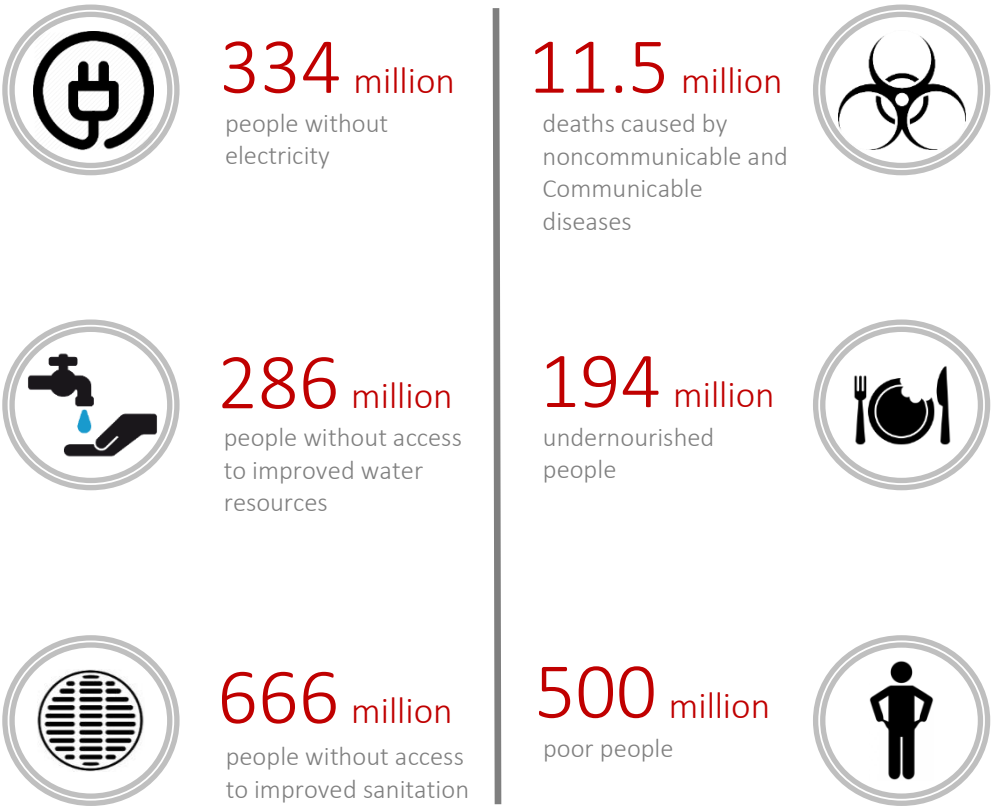
3.1 What Makes an Urban Area Sustainable?

As cities attract greater attention in the global development system, sustainable urbanization is increasingly becoming a key proposition that officials need to give attention. The concept of sustainability has been an integral part of development work since the late 1980s. Term 'sustainability' was originally applied to ecological foundations of economic development. Later, this term lost its initial meaning and began to be used for keep on doing something forever. For example, even within the text of the New Urban Agenda, sustainability is being used in almost 45 different contexts (UN, 2016).

Besides that, there is no consensus among economists, sociologists, ecologists and others on definition of urban sustainability. Reason for that is a diversity of viewpoints on what constitute the key issues and main criteria. Each discipline uses its own analytical lenses and tools to examine the processes of sustainability. Consequently, defining urban sustainability can include everything, from environmental protection, social cohesion and economic growth to alternative energy and green building design. Therefore, urban sustainability is a difficult concept to understand, and even harder to implement.

Different understanding on urban sustainability also exists among countries, and even within countries, due to the sets of challenges that are unique to different places. For instance for developed countries, existing transport, housing, sewerage and other relevant systems are outdated and need to be transformed in more sustainable way. However, this is a very different context for the countries that are straggling with huge informal settlements in cities, where lot of people are left without traditional infrastructure, basic services, law protection, and are compelled to low paid jobs, such it is a case with some OIC countries (Figure 3.1).

Figure 3.11 Socioeconomic Facts on OIC Member States (2015)



Source: SESRIC staff calculations.
Notes: OIC N = 57.

The smart city issue is a good example, which is built on the idea of pre-existing good quality high tech infrastructure, with widespread access to smart technology. Nevertheless, in cities where basic infrastructure is inadequate, it is impossible to implement smart city planning. Instead of that, the focus should be on getting the basics in place – clean air, clean water, sewage and sanitation, electricity, education, roads etc.

Another example is that of waste to energy plants - a waste management facility that combusts wastes to produce electricity. While these facilities are widespread in developed countries, they are irrelevant for many cities in developing world, since the composition of waste is very different, and contains a much higher load of organic matter. The reason for that are informal waste pickers who pick out waste of high calorific value for sale, and the remaining material cannot be combusted to provide sufficient energy. Moreover, waste management can be the highest budget item for local administrations in low-income countries, which are in average spending about 20% of their budgets on waste management (Kaza et al., 2018).

Researchers often chose to study cities in more developed countries with better access to data, and then offer urban policy recipes for cities in less developed ones, where conditions in many cases make these policy recommendations irrelevant. For that reason, it would be fair to argue that existing literature on sustainable urbanization tells a lot on small sample of good examples (Copenhagen, Tokyo, New York, Chicago, Paris, London, Stockholm, Melbourne etc.), but remains limited and fragmented on large sample of cases in developing world.

Still, even if there is no single recipe for becoming a sustainable urban area, some common patterns can be identified and some techniques recommended to countries and cities that are designing and implementing an urbanization strategy.

The existing literature points out to both, efforts which provide comprehensive context to understand how to design prosperous, just and successful cities, as well as more focused approaches trying to elaborate on basics of sustainable urbanization. The most accepted definition of sustainable development, which resulted from the work of the Brundtland Commission, is also guiding definitions on sustainable cities. Herbert Girardet for instance defines a sustainable city as 'a city that works so well that all its citizens are able to meet their own needs without endangering the well-being of the natural world or the living conditions of other people, now or in the future' (Girardet, 1999). This and other similar definitions apply only to one aspect of urban area sustainability, in terms of ensuring sustainable conditions such as the proper use of resources, protection of natural environment, quality of life and satisfaction of basic human needs for many generations of urban residents (Rasoolimanesh, 2012).

Terms such as 'sustainable urbanization' or 'sustainable urban development' have a broader meaning. They refer to a dynamic process of balancing and incorporating the component of environmental protection, to the social and economic components. In this context sustainable urbanization could be conceived as the integration of local economic productivity, social progress and environmental responsibility targets within a process of simultaneous

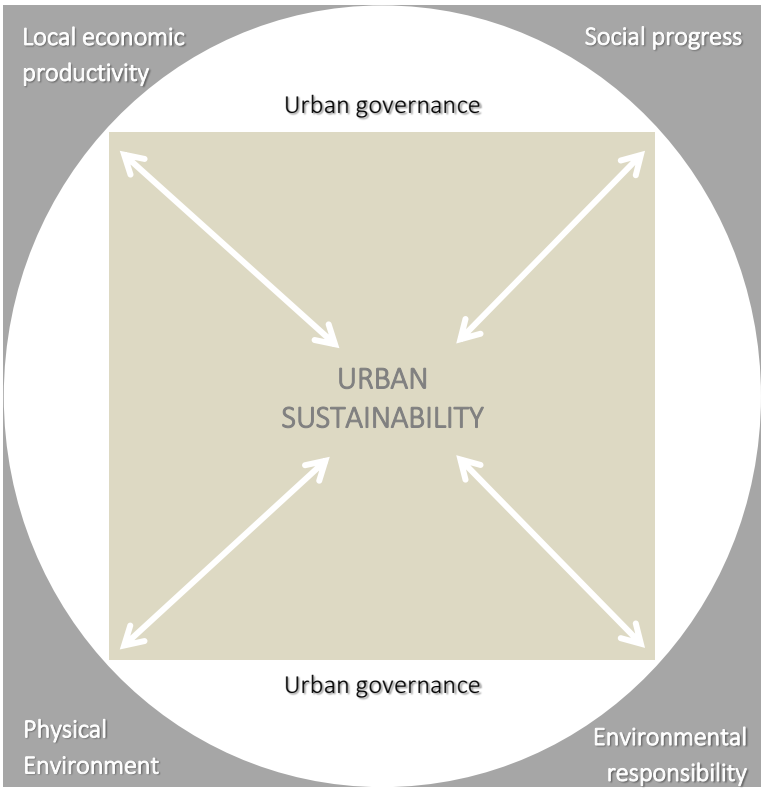
transformation of places,[1] populations, economies, and the built environment that creates an urban society (Saks, 2014; Solecki, 2013).

Acknowledging the political sustainability as an element affecting the more sustainable forms of urbanization is also essential. Historically, the design of cities has been significantly influenced by the country's political context, both at national or local level. The transformation of the entire parts of a city was the result of a strong political will and the economic power that followed it. However, today political sustainability is concerned with the quality of urban governance.

Figure 3.2 presents five pillars, which are recognized (UN, 2013) as mandatory elements for the achievement of sustainable urbanization, namely local economic productivity, social progress, environmental responsibility, physical environment and urban governance.

Local Economic Productivity: Role of cities in enhancing growth through higher productivity and attainment of better living standards is widely recognized (Naudé at al., 2011). An urban

Figure 3.2: Five Dimensions of Urban Sustainability



Source: Adapted from Adriana Allen, "Sustainable Cities of Sustainable Urbanization?" *Palette UCL's Journal of Sustainable Cities*, Summer 2009.

[1] In recent years, the term 'urban transformation' has gained importance in the scientific literature, referring to the changes needed, which are necessary in order to achieve the sustainable urbanization (Koch at al., 2018).

area contributes to growth by raising the productivity of output and employment, mobilizing and channelling of savings, and by providing the important shares of tax revenues. Furthermore, as cities become more engaged in the global economy, competitiveness at the local level becomes necessity for economic growth. The city is considered competitive if it can successfully help its firms and industries create jobs, raise productivity and increase the incomes of citizens over time (World Bank, 2015).

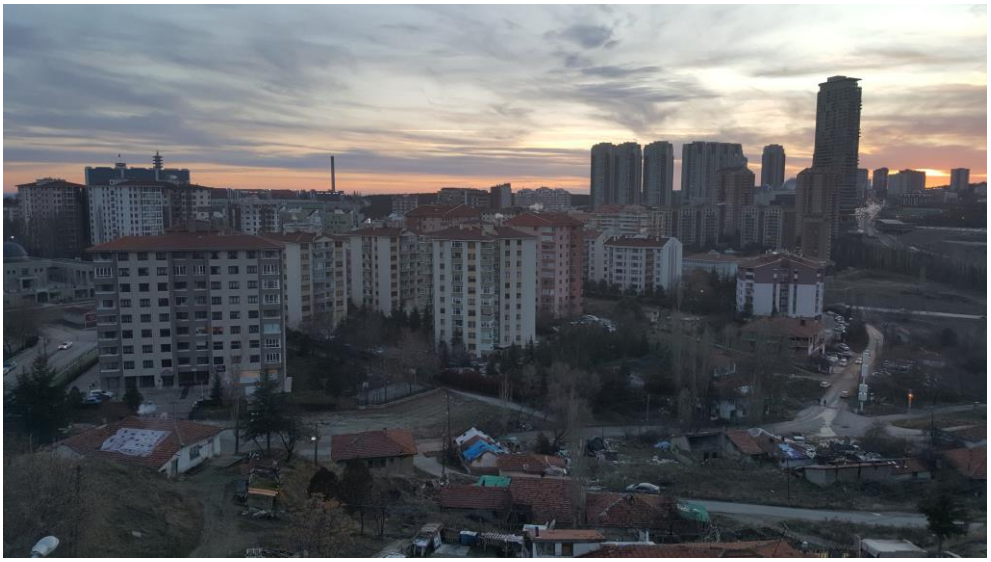
The basic conditions for competitiveness of cities are existence of efficient markets for land, labour, credit and for inputs. From cities is expected to enable businesses to compete, produce and trade efficiently, as well as foster the investment environment and innovations. An efficient legal system is therefore needed to ensure rule of law, competition, property rights and enforce contracts (Saks, 2014).

Social Progress: Improving the competitiveness of cities is a pathway to eradicate poverty and increase shared prosperity. Cities should provide answers on how vulnerable demographic groups (especially the urban poor, persons with disabilities, women, young people and migrants) and urban settlements under the risk of being isolated can get involved into labour markets and local development efforts. Social policies at city level should lead to cities, in which different people interact productively, with equal access to goods, health and education services, improved infrastructure (such as a good-quality public transportation, water and sanitation and waste management), as well as employment opportunities. Cities have to adopt policies that enable labour mobility as part of general welfare and poverty reduction strategies. Cities should also work on reducing inequality and slum upgrading, otherwise urban inequalities such as those in income levels and housing conditions will remain as a driver of ethnic/religious neighbourhoods and ghettos, illegal squatter settlements, as well as violence and unrest in many urban areas. Unfortunately, in OIC cities rich and poor may live next to each other, often incredibly close, as can be seen from Image 3.1.

Environmental Responsibility: Cities are key contributors to many environmental problems, such as air and water pollution. Not only do they face direct environmental threats; they also have the best opportunities to identify and deliver solutions. Cities must therefore make two kinds of environmental efforts: First, they should reduce their ecological footprint, sensibly use non-renewable resources and reduce greenhouse gas emission, along with reduction in energy use and waste production per unit of output (UN-Habitat, 2009). In EU countries for instance, instrument called 'Strategic Environmental Assessment' has been incorporated into national legislation, allowing examining the impacts of urban planning on the environment, which may occur as a result of the implementation of a plan, programme or project (EC, 2001). Second, cities should promote the culture and technology for disaster prevention and resilient development, through promoting more compact settlements and minimizing urban sprawl.[2]

[2] By resilient, it is understood that cities recognize and plan ahead for the environmental shocks they may experience in the future.

Image 3.1: Wealth and Poverty in Ankara, Turkey



Source: Photo from the personal collection of E. Türbedar.

Physical Environment: The sustainability of the built physical environment is also a part of sustainable urbanization. Physical environment should enhance the liveability of buildings and urban infrastructures for all city dwellers and it should be supportive to the local economy. Physical Environment includes not just built infrastructure and assets, but also the quality of service delivery provided by them.

Urban Governance: The role of governance system is to guide the relationship and actions of different actors among the previous four pillars of urbanization and to ensure that they remain within the boundary of sustainability (Figure 3.2). If cities are well governed, they can promote economically, socially and environmentally sustainable societies. Otherwise, urban problems may be the result of absence of effective governance, fragile institutions, low capacity of local authorities and absence of coherent urban policies, rather than urbanization itself.

Efforts to improve urban governance involve activities such as promoting participatory processes (creation and consolidation of inclusive platforms and partnerships for dialogue among all levels of government and other relevant stakeholders, including civil society) and securing greater decentralization of responsibilities and resources to local authorities. Moreover, deploying supportive rules and regulations that play a fundamental role in the management and development of a city is essential (UN-Habitat, 2016). In addition to this, city governments should be encouraged to promote innovative use of open data, as well as innovative concepts of urban planning and design that respect the landscape, history and cultural heritage of a city.

Unfortunately, to build upon the five pillars of urban sustainability can be a challenge for many cities and countries, due to different stages of development, different priorities, and

insufficient resources for investments. Growing responsibilities of cities are seldom accompanied by the resources that are necessary to meet them. Particularly in developing countries city leaders repeatedly point to the lack of urban financing as one of the primary barriers to long-term development. For that reason, governments must find new ways to help cities scale up their action in terms of financing their urban development needs.

3.2 Global Commitments for Sustainable Urban Development

The concept of sustainable cities and its links with sustainable development have been discussed for decades in the context of global development efforts. However, the first approximation to a concept of sustainable urbanization discussed above was reflected in the Declaration of the 1992 Rio de Janiero Conference on Environment and Development - The Earth Summit. Agenda 21 was also adopted at this conference, which defined sustainability in the context of economic, social, environmental and governance issues, focusing on the role of authorities and civil society at the local, national and international levels for the implementation of sustainable development policies.

Increased understanding on the role of cities in sustainable development has been ensured in the context of the Habitat Agenda, adopted in 1996 by the UN Conference on Human Settlements (Habitat II). The main outcome of Habitat II was a political commitment of countries to promote the positive effects of urbanization and limit its negative impacts, focusing on adequate shelter for all and sustainable human settlements. Similar approach was also reflected in the Goal 7 of the Millennium Development Goals, calling for, inter alia, improvement in the lives of millions of slum dwellers, with the implicit assumption that slum dwellers live in cities.

Urbanization was prominently elevated in the global development agenda in 2015, with the 2030 Agenda for Sustainable Development adopted at the UN Sustainable Development Summit. Development in cities is critical to achieving most of the Sustainable Development Goals (SDGs), not only Goal 11, which calls for making cities and human settlements inclusive, safe, resilient and sustainable (Box 3.1). For example, cities have a clear role in “ending poverty” (Goal 1), “reducing inequality” (Goal 10), as well as in taking action to combat climate change and its impacts (Goal 13). Actually, many other aspects of development as reflected in the SDGs have also to be realized in cities (Look at Figure 3.3). For that reason, it is frequently argued that the 2030 Agenda for Sustainable Development (encompassing the Sustainable Development Goals, the Paris Agreement on Climate Change, the Sendai Framework for Disaster Risk Reduction and the Addis Ababa Conference on Financing for Development) will not be met without serious attention to urban realities.

Box 3.1: Sustainable Development Goal 11 - Make Cities and Human Settlements Inclusive, Safe, Resilient and Sustainable

11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.

11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.

11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.

11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage.

11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.

11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.

11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning.

11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels.

11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials.

Source: *UN Department of Economic and Social Affairs, Sustainable Development Goals Knowledge Platform, https://sustainabledevelopment.un.org.*

Figure 3.3: New Urban Agenda (NUA) and Sustainable Development Goals

SDG 3

Health is key urban sector for environmental and epidemiological reasons; it is reflected in SDG 3 (and indirectly in SDG 11, target 11.6) and in paragraphs 54-55 and 118-119 of the NUA.

SDG 4

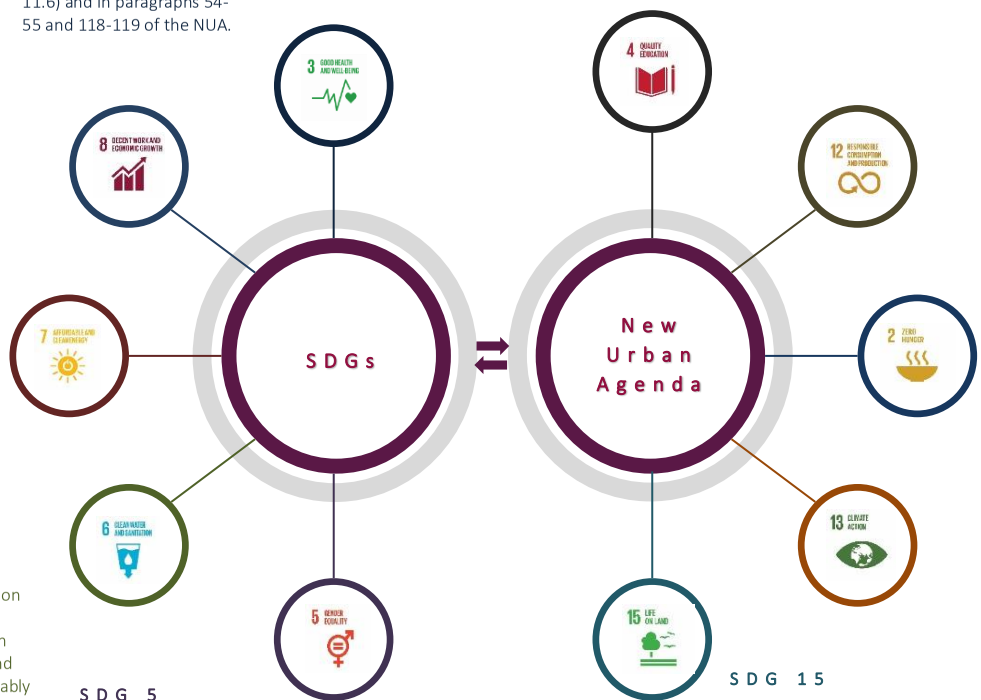
Education and culture are primarily reflected in SDG 4 and in SDG 11, target 11.4; they also appear in paragraphs 10, 38, 61 and 124 of the NUA.

SDG 8

Promoting inclusive economic growth, full and productive employment and decent work for all is reflected in SDG 8 and paragraphs 13(d), 14(b), 43-44, 56-57, 61 and 133 of the NUA.

SDG 12

The issue of sustainable consumption and production is addressed by SDG 12 and in paragraphs 13(h), 14(c) and 63 of the NUA.



SDG 7

Energy is a critical input to urban infrastructure and has historically driven the spatial form of cities; this issue is addressed in SDG 7 and paragraphs 44, 54, 75 and 121 of the NUA.

SDG 2

Food security and rural-urban linkages are increasingly critical for cities; this topic is reflected in SDG 2 (and to some extent SDG 11, target 11.a) and in paragraphs 13(a), 14(a), 95

SDG 6

Cities very often draw upon vast territories for their supply of water, on which their basic functioning and ability to develop sustainably depends; this issue is addressed in SDG 6 and paragraphs 72-74 and 119-120 of the NUA.

SDG 13

Cities are both responsible for and victims of climate change. They are also often potential solutions for it; this topic is addressed in SDG 13 (and indirectly in SDG 11, targets 11.5 and 11.b) and paragraphs 63-64, 79-80, 101 and 143-44 of the NUA.

SDG 5

Gender is reflected in SDG 5 and paragraph 5, 13(c) and 40 of the NUA.

SDG 15

Biodiversity is reflected in SDG 15 and paragraphs 13(h), 63, 65, 68-69 and 71 of the NUA.

Source: SESRIC staff design based on UN Habitat, *Action Framework for Implementation of the New Urban Agenda,* 19 April 2017.

In 2016, issue of sustainable urbanization gained momentum at the UN Conference on Housing & Sustainable Urban Development, Habitat III, by adopting the New Urban Agenda (UN, 2016). The Agenda is not a binding agreement, but rather a roadmap for sustainable urbanization and achieving the SDGs at local level, which can be interpreted by each nation within the context of its own conditions. In the New Urban Agenda, world leaders have committed to:

- Provide basic services for all citizens,
- Ensure that all citizens have access to equal opportunities and face no discrimination,
- Promote measures that support cleaner cities,
- Strengthen resilience in cities to reduce the risk and the impact of disasters,
- Take action to address climate change by reducing their greenhouse gas emissions,
- Fully respect the rights of refugees, migrants and internally displaced persons regardless of their migration status,
- Improve connectivity and support innovative and green initiatives,
- Promote safe, accessible and green public spaces.

The New Urban Agenda calls on national and local governments to work together on urban legislation, urban planning and improved municipal finances as a pre-condition for urban development. The UN-Habitat, with the entire UN development system, has a potentially critical role in supporting countries to effectively implement this Agenda.

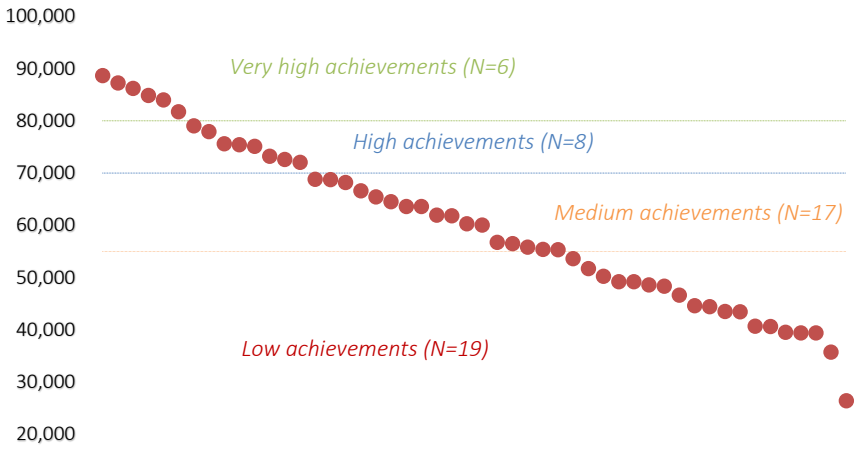
While recognizing the role of cities in achieving SDGs and implementing the New Urban Agenda, many global associations of subnational governments are tying to promote linking of the global development goals with the local action. The Localizing the SDGs initiative, the Global Taskforce of Local and Regional Governments, the United Cities for Local Governments, the Metropolis and the UN led Local2030 hub are among those associations. Moreover, many national networks are also supporting their members for integrating of the SDGs into local policies. Furthermore, local and regional leaders have strongly expressed their readiness to contribute to the SDGs through the Bogotá Commitment and the Declaration of the World Assembly of Local and Regional Governments at Habitat III.

The challenge of data remains key to monitoring the SDGs progress. For producing disaggregated data and for comprehensive reviews, national efforts should support subnational statistical offices and capacities. However, the national statistical offices are generally conservative and developing data takes a long time. On the other hand, the official UN SDG indicators are still being developed and finalized. Nevertheless, some exercises - such it is a case with the SDG Index and Dashboards Report provides basic insights on performance of countries towards achieving the SDGs.

SDG Index and Dashboards Report 2018, inter alia, scores progress in achieving the SDG11 for 50 OIC countries, based on following two indicators: 1. Annual mean concentration of particulate matter of less than 2.5 microns of diameter (PM2.5) in urban areas (µg/m3); 2. Improved water source, piped (percentage of urban population with access). With regard of

these two indicators, in 2018, 19 OIC countries fall under category of low achievements in urbanization targets, 17 under medium achievements, 8 under high achievements and only six under category of very high achievements in urbanization targets (Figure 3.4).

Figure 3.4: SDG 11 Scores (2018)



Source: SDG Index and Dashboards Report 2018: Global Responsibilities - Implementing the Goals, Bertelsmann Stiftung and Sustainable Development Solutions Network, July 2018.
Notes: OIC N = 50. The score values are between the worst (0) and the best (100). For example, index score 85 suggest that the country is on average 85% of the way to the best possible outcome for the SDG 11.

Figure 3.5: Knowledge on New Urban Agenda

Source: Online survey conducted by SESRIC with senior OIC local authorities.
Notes: Authorities from Afghanistan, Egypt, Jordan, Kyrgyzstan, Malaysia, Pakistan, Saudi Arabia and Turkey are included. Number of cities involved is equal to the total number of responses to the question.

Of course, two indicators are not enough two evaluate which countries are on the track to meet the SDG11 targets. However, they are testifying that implementation gaps on the SDG11 remain large, and that some urban areas in OIC countries face strong challenges. The situation is even more critical in the cities where senior local authorities still did not hear about the New Urban Agenda. Online survey conducted by SESRIC with senior OIC local authorities testifies that half of the respondents (8 out of 16) consider that they are not informed at all about the New Urban Agenda. Furthermore, in terms of implementation of New Urban Agenda, majority of surveyed senior local authorities have reported that their city do not have a specific plan. However, they still argue that they possess a strategic plan for sustainable urbanization, although minority of respondent was able to recommend a successful project to be used as a good example for other OIC cities (Figure 3.5)

Goals of the OIC member countries are not different from those of UN. The Charter of the OIC as well as the OIC - 2025 Programme of Action recognizes the need for exerting efforts to achieve sustainable development with its three dimensions, social, economic and environmental. Since national governments of OIC member states are compelled to meet the SDG targets, they should increasingly take role in cities and support them. Sustainable urbanization must be at the center of development efforts, because struggle for sustainability of OIC countries will be won or lost in cities.

CHAPTER FOUR

Economic Performance and Liveability of OIC Cities

Economic strength of countries lies in cities, because they are places where economic development really happens. With around 55% of total world population, cities generate around 80% of global GDP (UN, 2013). Cities concentrate wealth, income and business opportunities, they generate jobs and provide opportunity for learning new skills. Further, according to Sassen (2002), cities that drive national growth are also central places where the work of globalization gets done.

However, it is easy to see that some cities are prospering and others are not. A World Bank study finds that cities vary enormously when it comes to their economic performance and that countries tend to stagnate when too many of their cities fail to build economic wealth (World Bank, 2015a). Moreover, some cities are performing better in achieving growth, but often the benefits of that growth are concentrated in upper levels of income distribution. For that reason, current model of urbanization in many places of the world generates multiple forms of inequality and exclusion, which creates special divisions in the cities often characterized by slum areas.

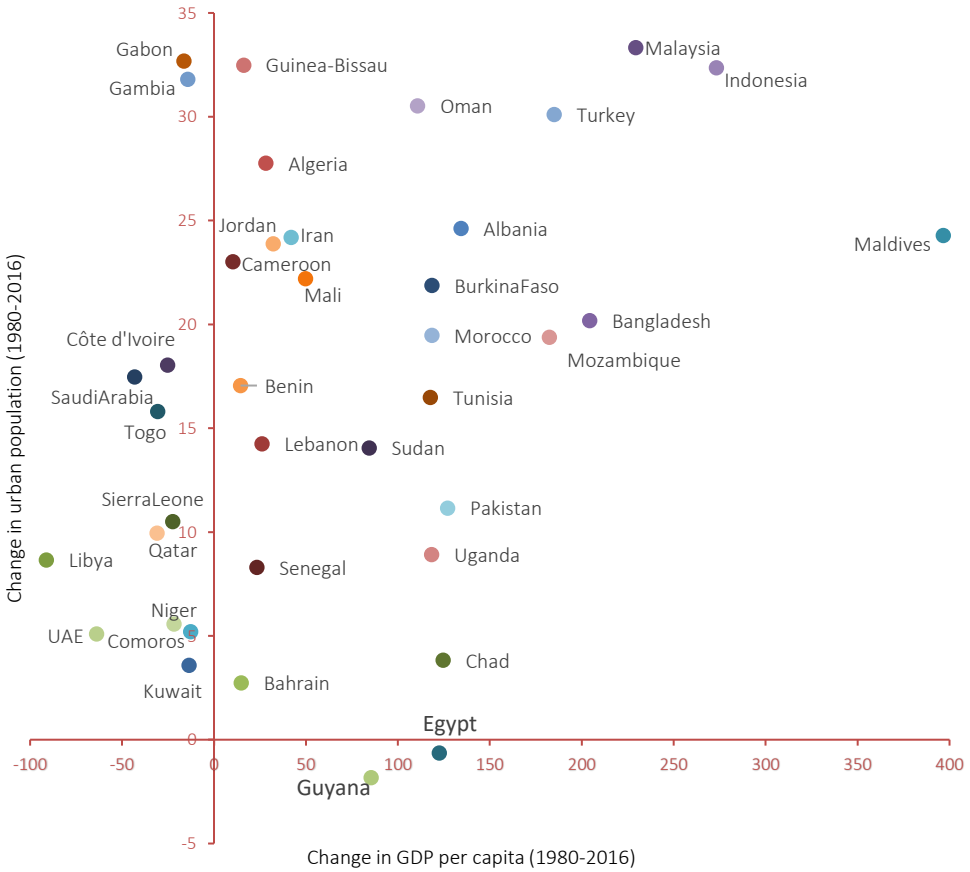
Most economists would agree on the notion that spatial concentration itself creates a favourable economic environment. At their best, cities enable different industries and workers to cluster together, utilize from agglomeration economies, and thus unlock productivity potentials. The key ingredients for productivity are factor mobility, specialisation, economies of scale and diffusion of knowledge (Spence, Annez and Buckley, 2009). The mobility of factors allows their use in the most productive firm or city. Great concentration of businesses attract highly educated people, and enhance the number and frequency of economic interactions that leads to specialization. Scale economies encourage firms or cities to produce more of some goods and services and thus reduce unit production costs and make them more productive and competitive, while across-industry knowledge and technology spillovers provide the base for greater innovation. For that reason, cities are frequently defined as the world's incubators of innovation and some cities grow faster because they are more innovative, but also better organized (Detter and Fölster, 2017).

Due to agglomeration economies, higher percentage of urbanization tends to associate with a higher per capita income. Many countries become at least 50% urbanized before reaching middle-income status (Spence, Annez and Buckley, 2009). For example, rapid urbanization of Turkey that sped up especially in the 1980s was primary source of economic growth of this country. As Turkish population moved from rural areas to higher value-added jobs in cities, the value of its total output increased automatically (World Bank, 2015b). Similarly, many OIC countries have been able to harness the benefits of urbanization and agglomeration economies.

4.1 Economic Performance

Figure 4.1 shows the economic performance of OIC countries (in terms of increasing GDP per capita) alongside the increase in urban share of population during the period from 1980 to 2016. Malaysia, Indonesia, Oman, Turkey, Albania, Maldives, Burkina Faso, Bangladesh, Morocco and Mozambique have performed above the OIC average on both indicators, thus benefitted most from agglomeration economies. However, some OIC countries, such as Gabon, Gambia, Cote d'Ivoire, Saudi Arabia and Togo have rapidly urbanized during the same period, but it looks like they have not been able to leverage the full benefits of urbanization. Egypt and Guyana, on the other hand present the "steady-state" situation, where urban growth took place largely before the 1980s, but this countries continue to benefit from agglomeration economies.

Figure 4.1: Urbanization Rate and GDP per Capita Change in the OIC Countries

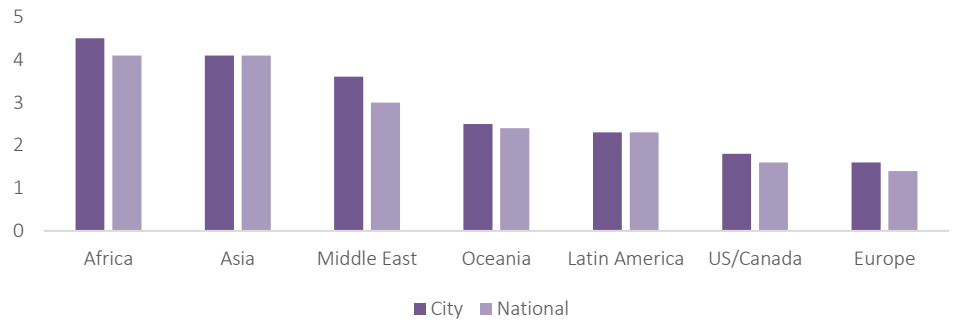


Source: World Bank.

In many cities of the world, the contribution of urban areas to national income is greater than their share of national population, and similar trend is expected to continue in the future

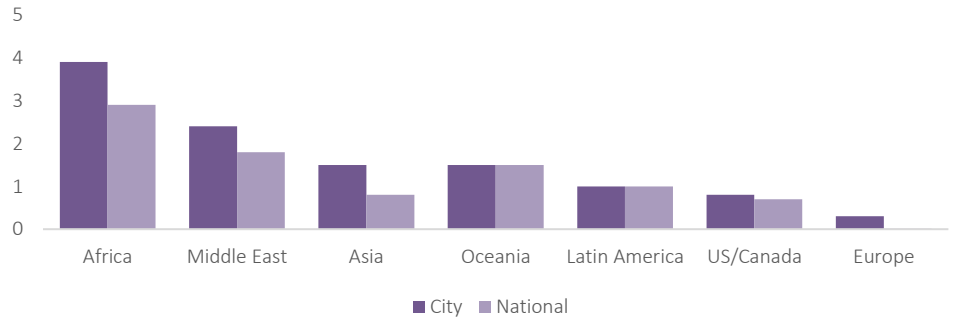
(Figure 4.2). By 2035, aggregate GDP of the 780 biggest city economies in the world is projected to be 70% larger in real terms than in 2016 (Light and Britton, 2018). Particularly megacities are presented in the literature as wealth creators for the national economy (O'Flaherty, 2005), although economically fastest growing cities tend to be smaller (Light and Britton, 2018).

Figure 4.2: City and National GDP Growth (average annual growth, 2017-2035)



Source: Anthony Light and Mark Britton, "African & Middle Eastern Cities Outlook", *Oxford Economics*, February 2018.
*Notes: S*ample of 780 cities, which in 2016 hosted 35% of world population and accounted for 59% of global GDP. Africa N = 94, Asia N = 323, Middle East N = 31, Oceania N = 11, Latin America N = 104, US/Canada N = 58, Europe N = 159.

Figure 4.3: City and National Employment (average annual growth, 2017-2035)



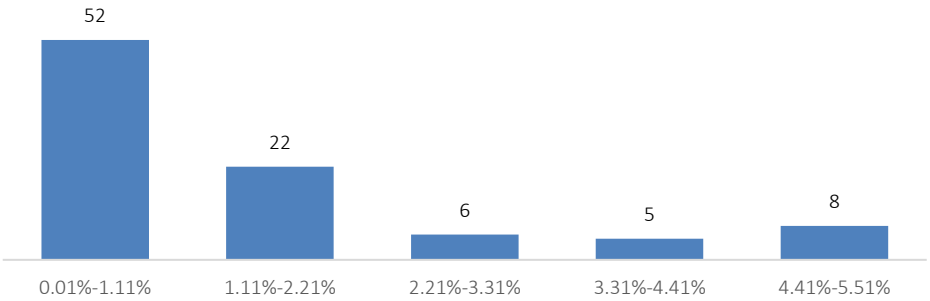
Source: Anthony Light and Mark Britton, "African & Middle Eastern Cities Outlook", *Oxford Economics*, February 2018.
*Notes: S*ample of 780 cities, which in 2016 hosted 35% of world population and accounted for 59% of global GDP. Africa N = 94, Asia N = 323, Middle East N = 31, Oceania N = 11, Latin America N = 104, US/Canada N = 58, Europe N = 159.

Cities from developing countries tend to outpace more developed Western cities, and lead in GDP growth. Situation is similar for employment prospects. Towards 2035, the average annual employment growth in cities is expected to outstrip employment growth at national level

(Figure 4.3), what means that employment opportunities and increases in productivity and growth are expected to come more from the private sector, particularly in cities of Africa, Middle East and Asia.

Figure 4.4 shows the results of 93 OIC cities that have grown faster than their national economies from 2005 to 2012. During the given period, 13 cities of Nigeria – whose rate of urbanization (4.3% in 2017) is among the fastest in the world, had a best achievement in outperforming the national economy in terms of economic growth.

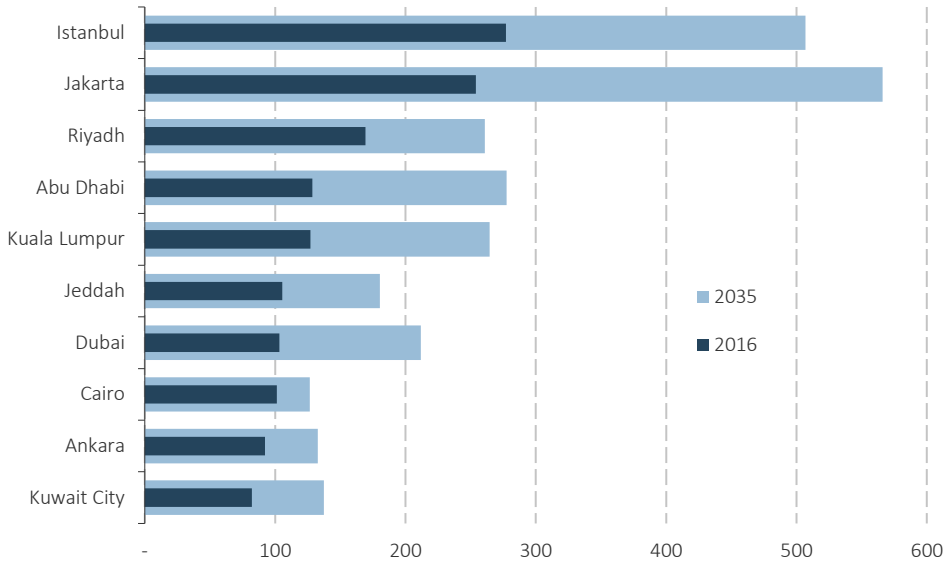
Figure 4.4: OIC Cities with GDP Growth above Average National GDP Growth (2005-2012)



Source: World Bank, *Competitive Cities for Jobs and Growth: What, Who and How*, Washington: The World Bank Group, 2015.
Notes: Data on 750 largest cities in the world. Following OIC cities have grown faster than their national economies from 2005 to 2012:
0.01% - 1.11%: Albania (Tirana), Algeria (Constantine), Azerbaijan (Baku), Bangladesh (Khulna, Rajshahi), Benin (Cotonou), Cameroon (Douala, Yaounde), Chad (N'Djamena), Côte d'Ivoire (Abidjan), Gabon (Libreville), Gambia (Banjul), Indonesia (Yogyakarta, Bandar Lampung, Bandung, Denpasa, Jakarta, Padang, Pontianak, Semarang, Surabaya), Iran (Ahvaz, Esfahan), Iraq (Baghdad, Mosul), Kazakhstan (Almaty, Astana), Kuwait (Kuwait City), Kyrgyzstan (Bishkek), Lebanon (Beirut), Malaysia (Ipoh, Kota Kinabalu, Kuala Lumpur, Kuantan, Seremban), Mali (Bamako), Morocco (Marrakech), Mozambique (Maputo), Niger (Niamey), Qatar (Doha), Saudi Arabia (Jeddah, Mecca, Medina), Senegal (Dakar), Sudan (Khartoum), Tajikistan (Dushanbe), Togo (Lome), Tunisia (Sfax, Tunis), Uzbekistan (Tashkent) and Yemen (Aden, Sana'a).
1.11%-2.21%: Algeria (Algiers, Oran), Bangladesh (Chittagong, Dhaka), Guinea (Conakry), Indonesia (Bandjarmasin, Jambi, Medan, Ujung Pandang), Pakistan (Faisalabad, Gujranwala, Hyderabad, Islamabad, Karachi, Lahore, Multan, Peshawar, Quetta, Rawalpindi, Saudi Arabia (Riyadh), UAE (Abu Dhabi) and Uganda (Kampala).
2.21%-3.312%: Burkina Faso (Ouagadougou), Côte d'Ivoire (Yamoussoukro), Nigeria (Lagos, Jos), Oman (Muscat) and UAE (Sharjah).
3.31%-5.51%: Nigeria (Maiduguri, Kaduna, Zaria, Ibadan, Ogbomosho).
4.41%-5.51%: Nigeria (Kano, Aba, Abeokuta, Benin City, Enugu, Ilorin, Onitsha, Abuja).

Figure 4.5 shows the top 10 OIC cities with largest real GDP levels. In 2016, Istanbul and Jakarta took the lead with 277 billion dollars and 254 billion dollars, respectively, followed by Riyadh (169 billion dollars), Abu Dhabi (129 billion dollars) and Kuala Lumpur (127 billion dollars). Kuwait city produces about 57% of Kuwait's entire GDP. Cairo, Kuala Lumpur and Abu Dhabi accounted for nearly 35% of national economic output, while Jakarta, Riyadh, Istanbul and Dubai produced almost one-quarter of national GDP.

Figure 4.5: Largest OIC City Economies (billion dollars, constant 2015 prices)



Source: Oxford Economics; TÜİK data for Ankara.

Table 4.1: The World's Top 10 Cities in 2035

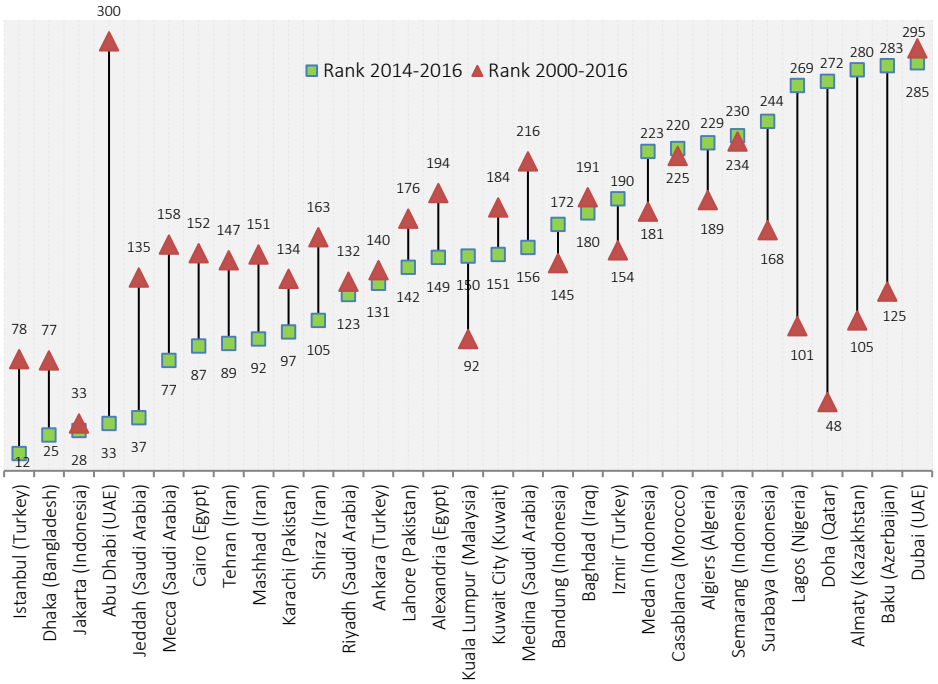
GDP ($ trillion, constant 2018 prices)		Population (million)	
New York	2.5	Jakarta	38.0
Tokyo	1.9	Tokyo	37.8
Los Angeles	1.5	Chongqing	32.2
London	1.3	Dhaka	31.2
Shanghai	1.3	Shanghai	25.3
Beijing	1.1	Karachi	24.8
Paris	1.1	Kinshasa	24.7
Chicago	1.0	Lagos	24.2
Guangzhou	0.9	Mexico City	23.5
Shenzhen	0.9	Mumbai	23.1

Source: Oxford Economics.

Almost all OIC cities presented in Figure 4.5 look set to maintain their rapid pace of economic development towards 2035, according to Oxford Economics projections. However, the GDP rankings of top 10 OIC cities might change by 2035, since Jakarta is expected to jump to the first place with projected 566 billion dollars. Real GDP levels are expected to double in Jakarta, Abu Dhabi, Kuala Lumpur and Dubai until 2035.

It is intriguing to note that by 2035, no OIC city is projected to be part of the world's top 10 largest urban agglomerations ranked by GDP. Nevertheless, in terms of population, with projected 38 million people Jakarta is expected to become the most populous city in the world. Dhaka, Karachi and Lagos are also projected to be at the top 10 list of the world's most populated cities in 2035 (Table 4.1).

Figure 4.6: Global Ranking of Economic Performance of OIC Cities

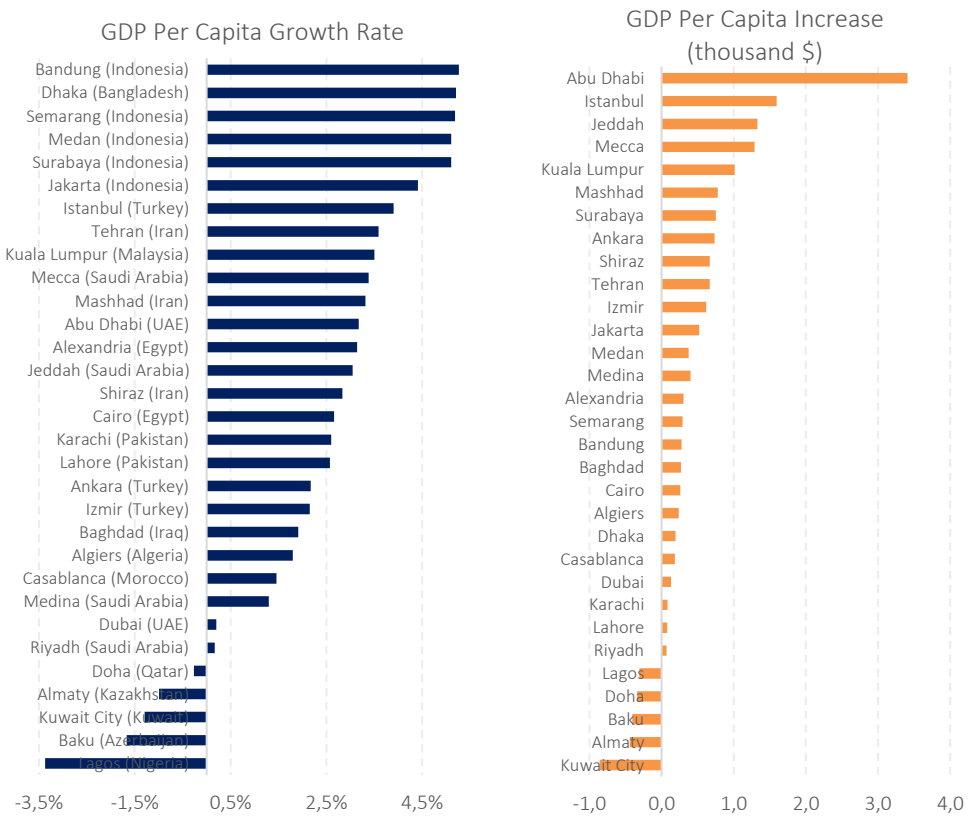


Source: Bouchet, Max et al., *Global Metro Monitor 2018,* Metropolitan Policy Program at Brookings, July 2018.
Notes: Brookings analyses of Oxford Economics data. Sample is comprised of the 300 largest metropolitan economies in the world, based on the size of their economies in 2016 at PPP rates.

According to the Global Metro Monitor 2018, between 2014 and 2016, Istanbul has been ranked 12th among 300 largest metropolitan economies in the world in terms of economic performance. Within OIC cities, Istanbul was followed by Dhaka (25th place) and Jakarta (28th place). In total 31 OIC cities (five from Indonesia, four from Saudi Arabia, three from Turkey, three from Iran etc.) have entered the rankings of the world's 300 largest metropolitan economies, with 16 cities in the top 150 and five in the top 50 (Figure 4.6). Compared with the long term, i.e. ranking for the period from 2000-2016, position of 12 OIC cities drifted back in the list in recent period, while 19 of them managed to improve their economic performance. Doha, Almaty, Lagos, Baku and Surabaya are OIC cities whose global ranking of economic performance deteriorated at most during the period from 2014 to 2016. On the opposite side, among OIC cities, Abu Dhabi realized biggest jump in global ranking.

With a growth rate above 5% in per capita GDP, Bandung, Semarang, Medan and Surabaya, cities of Indonesia, and Dhaka (Bangladesh), performed best among OIC largest metropolitan economies in the period from 2014 to 2016. Lagos, Baku, Kuwait City, Almaty and Doha had a negative GDP per capita growth rate in the same period, with GDP per capita decreases between 300-900 dollars. In the same period, biggest increase in living standard took place in Abu Dhabi, where GDP per capita increased for 3,400 dollars. Istanbul, Jeddah, Mecca and Kuala Lumpur follow Abu Dhabi with GDP per capita increases between 1,000-1,600 dollars (Figure 4.7).

Figure 4.7: Increases in Living Standards (2014-2016)

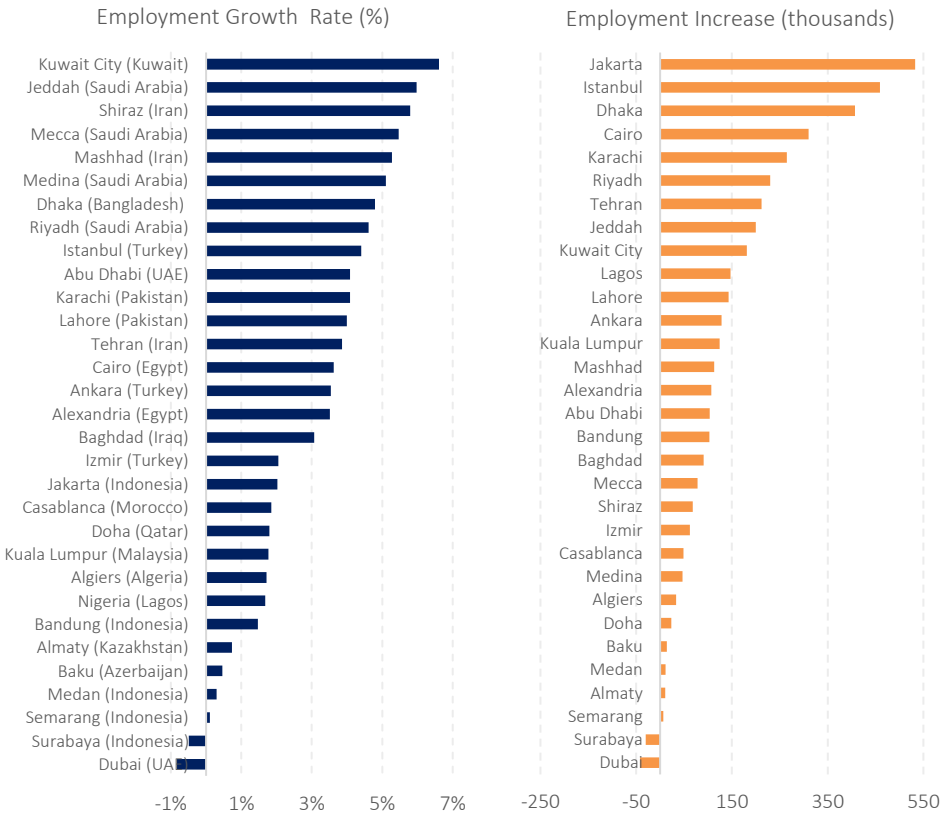


Source: Bouchet, Max et al., *Global Metro Monitor 2018,* Metropolitan Policy Program at Brookings, July 2018.
Notes: Brookings analyses of Oxford Economics data. Sample is comprised of the 300 largest metropolitan economies in the world, based on the size of their economies in 2016 at PPP rates.

Comparison between Figures 4.7 and 4.8 indicates to unequal income distribution in some OIC cities. For example, although Indonesian city Surabaya in the period from 2014 to 2016 increased its living standards with the GDP per capita growth above 5%, more than 30,000 people lost their jobs. On the other hand, Kuwait City with the negative GDP per capita growth rate (-1.3%) had a greatest employment growth (6.6%) in the given sample of OIC cities (Figure 4.8). This situation confirms the fact that despite the GDP per capita growth, due to

concentration of wealth in a certain part of the society, lot of people may continue to live under difficult conditions.

Figure 4.8: Employment in Large OIC Metropolitan Areas (2014-2016)



Source: Bouchet, Max et al., *Global Metro Monitor 2018,* Metropolitan Policy Program at Brookings, July 2018.
Notes: Brookings analyses of Oxford Economics data. Sample is comprised of the 300 largest metropolitan economies in the world, based on the size of their economies in 2016 at PPP rates.

Between 2014 and 2016, among large OIC metropolitan economies, Kuwait City, Jeddah, Shiraz, Mecca, Mashhad and Medina experienced the fastest employment growth rates (above 5%), while Dhaka, Istanbul and Jakarta exhibited the biggest employment increase, generating in total 1.4 million new jobs. By contrast, Dubai and Surabaya, experienced negative employment growth rates, whereas Semarang, Medan, Baku and Almaty exhibited slowest ones.

According to Fortune Global 500, an annual ranking of the top 500 corporations worldwide measured by revenue, in 2018 the world's 500 largest companies generated near 30 trillion dollar in revenues and employed 67.7 million people worldwide. As shown in the Table 4.2, only five companies located in OIC cities (Kuala Lumpur, Jakarta, Riyadh, Istanbul and Dubai) have entered the ranking, which produced 186.9 billion dollar in total, and provided

employment to 268,195 people. Petronas with headquarters in Kuala Lumpur is presented as biggest company in the OIC area, ranking at 191 place globally.

Table 4.2: The OIC's Best Performing Companies in 2018

Company	Sector	City	Number of employees	Revenues ($millions)	Rank
Petronas	Energy	Kuala Lumpur	49,911	$52,028	191
Pertamina	Energy	Jakarta	27,817	$42,959	253
Sabic	Chemicals	Riyadh	34,000	$39,939	281
Koc holding	Energy	Istanbul	94,111	$27,108	435
Emirates group	Transportation	Dubai	62,356	$24,837	474

Source: Fortune Global 500, Fortune Magazine.

It is apparent from the Table 4.2 that OIC companies are not recognized among biggest world wealth creators. However, OIC cities which are home to some of the world's wealthiest people, provide important residential and investment opportunities. Within OIC area, Saudi Arabia leads with number of super-rich individuals, and Indonesia, United Arab Emirates and Turkey follow it (Table 4.3). According to the Knight Frank's Wealth Report, from 2017 to 2022, 223,447 households in Jakarta are expected to earn above 250,000 dollars. 152,643 households in Cairo and 84,067 households in Abu Dhabi are projected to earn same amount of money.

Table 4.3: Wealth Concentration in Some OIC Countries (2017)

	Individuals Worth Over $5M	Individuals Worth Over $50M	Individuals Worth Over $500M
Saudi Arabia	21100	1540	120
Indonesia	19010	1160	70
Turkey	12540	600	50
UAE	7280	660	80
Malaysia	7100	310	20
Egypt	4180	240	20
Nigeria	3730	200	20
Uganda	<=100	<=20	<=10

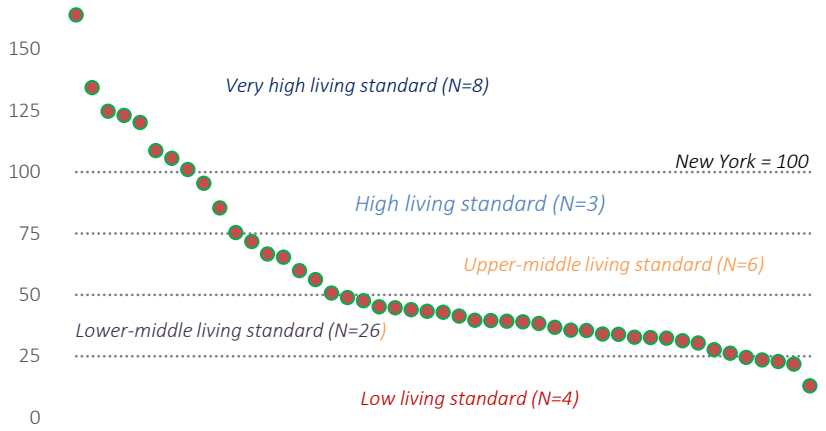
Source: Knight Frank, *The Wealth Report: The Global Perspective on Prime Property and Investment,* 2018.

Most of individuals from OIC area worth over 50 million dollar, live, spend, invest and educate their children in cities such as Riyadh, Jeddah, Jakarta, Dubai, Abu Dhabi, Kuala Lumpur and Istanbul. These OIC cities are also most desirable and most expensive property locations, with a significant international bias in terms of buyer profile (Knight Frank, 2018). However, the local purchasing power index prepared by Numbeo tells a more realistic story about living standards in OIC cities. On January 2019, 47 OIC cities (mostly from MENA region and Asia) are listed among the 435 cities in the world in terms of purchasing power. The index gives city of Al Ain (United Arab Emirates) 164 – highest score among OIC cities, using local purchasing

power of New York as basis of comparison at 100. The meaning of this score is that the inhabitants of Al Ain with the average salary can afford to buy 64% more goods and services than New York residents with an average salary. Doha (134), Al Kobar (125), Ad Damman (123), Dubai (120), Riyadh (109) and Abu Dhabi (106) are other OIC cities with very high living standards, where the inhabitants on average live better than those in New York.

OIC cities Sharjah (95), Muscat (85) and Kuala Lumpur (75) are also considered enjoying relatively higher living standard on average. However, as it is shown in Figure 4.9, out of 47 OIC cities, 30 do not enjoy even the half of average living standard in New York (Figure 4.9). In this regard, worst situation is in Lagos (13), where the inhabitants with the average salary can afford to buy 87% less goods and services than New York City residents. Average lower living standards are also present in Kampala (local purchasing power score 22), Alexandria (23), Bali (24), Cairo (25), Jakarta (26) and Tashkent (28).

Figure 4.9: Local Purchasing Power Index for OIC Cities (January 2019)



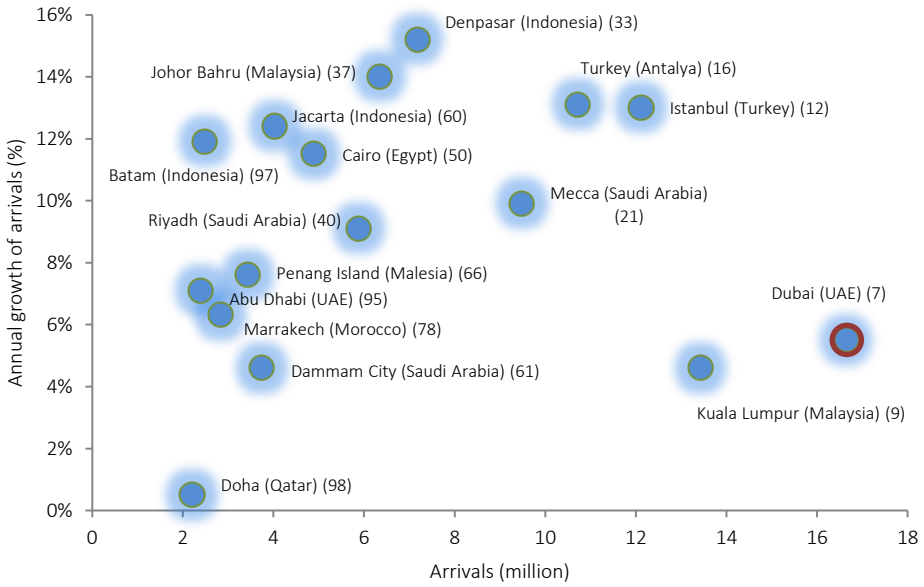
Source: www.numbeo.com.
Notes: Local purchasing power index shows relative purchasing power in buying goods and services in a given city for the average wage in that city. If domestic purchasing power is 40, this means that the inhabitants of that city with the average salary can afford to buy on an average 60% less goods and services than New York City residents with an average salary. The index takes into account cost of clothing and shoes, markets, rent per month, restaurants, sports and leisure, transportation and the utilities.

4.2 Attractiveness

Largest OIC metropolitan economies are increasingly becoming global economic hubs. These urban centres continue to attract more people who come to live, do business and discover them. This growth is also translated in the rise of city tourism - a trend that is forecasted to last. Euromonitor International's annual ranking of the world's most popular cities by international inbound city arrivals, shows that 16 out of the top 100 most visited cities in 2018

are in OIC member countries. It is estimated that these OIC cities were destination to 108 million international arrivals, or 16.7% of top 100 city arrivals.

Figure 4.10: Top OIC City Destinations (2018)



Source: Wouter Geerts, *Top 100 City Destinations 2018*, Euromonitor International, 2018.
Notes: Values in brackets show the ranking. Arrivals are defined as international tourists, i.e. any person visiting another country for at least 24 hours, for a period not exceeding 12 months. Arrivals encompasses all purposes of visit, such as business, leisure and visiting friends and relatives. Arrivals excludes domestic visitors, same-day visitors, people in transit, cruise passengers, those in paid employment abroad, students that stay in a country for a period of more than 12 months, military personnel, transportation crew and migrants.

Dubai (16.7 million arrivals) and Kuala Lumpur (13.4 million arrivals) are the top two OIC performers, ranking among top 10 most visited cities in the world, with 7th and 9th places respectively (Figure 4.10). Both cities figured ahead of many popular destinations in Europe, America and Asia, because they have so much to offer in terms of tradition, culture, attractions, luxury hotels, theme parks, shopping malls, adventure sports etc. With Dubai Tourism Vision 2020, this city aims to welcome 20 million foreign visitors by 2020, which will push Dubai to higher ranking in the next couple of years. Mastercard estimates that foreign visitors spent 29.7 billion dollars in Dubai in 2017, and 7.5 billion dollars in Kuala Lumpur (GDCI, 2018). Same year, share of city GDP of Dubai and Kuala Lumpur directly attributable to the travel and tourism sector was 10.1% and 6.1% respectively (WTTC, 2018).

Turkish cities Istanbul (12.1 million, 12th place) and Antalya (10.7 million, 16th place) also feature in the global international inbound city arrivals. Istanbul is also 3rd most visited city in Europe. Among the 16 OIC cities, in 2018 Denpasar, Indonesia, stand out for its strongest annual international arrivals growth, registered at 15.2%.

Johor Bahru, Antalya, Istanbul, Jacarta, Batam and Cairo have also shown relatively stronger annual growth, taking values between 11% and 14%. Figure 4.10 shows that all listed OIC cities have extended their importance for the global travel industry, with exception of Doha, whose international arrivals almost stagnated between 2017 and 2018.

Figure 4.11 illustrates the number of tall buildings in OIC area. Dubai is by far the OIC's leader in skyscraper construction. Near 13% of completed buildings over 150 meter in a world are located in OIC cities. By 2018, Dubai has 190 of the buildings over 150 meter. Jakarta and Kuala Lumpur follows Dubai on the list with 85 and 59 completed buildings, respectively. These three cities also lead the OIC list with the most 200-meter-plus building completions. The total number of buildings over 200 meter in the OIC reached 242 in 2018, or near 18% of world total. This is a huge increase from 2005, when only 22 buildings of 200 meters or more were completed in OIC area (see Figure 4.12).

Figure 4.11: Number of Tall Buildings in OIC Cities (2018)

	150 meters or more	200 meters of more
Dubai (UAE)	190	80
Jakarta (Indonesia)	85	38
Kuala Lumpur (Malaysia)	59	26
Istanbul (Turkey)	45	6
Abu Dhabi (UAE)	37	23
Doha (Qatar)	35	21
Riyadh (Saudi Arabia)	17	9
Kuwait City (Kuwait)	16	8
Manama (Bahrain)	13	6
Sharjah (UAE)	12	4
Mecca (Saudi Arabia)	7	7
Izmir (Turkey)	6	3
Surabaya (Indonesia)	6	1
Ankara (Turkey)	5	0
Jeddah (Saudi Arabia)	5	2
Tangerang (Indonesia)	5	1
Baku (Azerbaijan)	4	1
Penang (Malaysia)	4	1
Astana (Kazakhstan)	3	0
Johor Bahru (Malaysia)	3	3
Al Fujayrah (UAE)	2	0
Beirut (Lebanon)	2	0
Ajman (UAE)	0	1
Al Khobar (Saudi Arabia)	0	1
OIC Total	561	242

Source: skyscrapercenter.com

Box 4.1: The Global Power City Index 2018

The few decades saw growing competition between cities, which compete to attract investment, 'knowledge workers', tourists, and in some cases talented management staff.

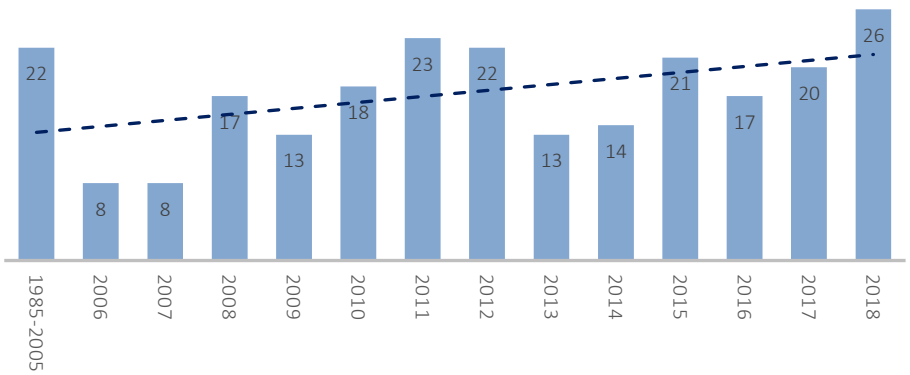
The Global Power City Index 2018 (GPCI) developed by The Mori Memorial Foundation's Institute for Urban Strategies, evaluates and ranks 44 major cities of the world according to their "magnetism," or their comprehensive power to attract creative people and business enterprises from around the world. Cities are rated on the basis of 70 detailed indicators in six categories: economy, research and development, cultural interaction, livability, environment and accessibility.

Overall, European cities scored highly on liveability and environment, while U.S. cities took high scores in the areas of research and development, underscoring the attraction of these cities for researchers and innovators. Seven Asian cities featured in the top 10 in the economy category.

The GPCI included only five OIC cities with the following ranks: Dubai (29), Kuala Lumpur (32), Istanbul (34), Jakarta (41) and Cairo (44).

Source: MMF, *Global Power City Index 2018*, Institute for Urban Strategies at the Mori Memorial Foundation, October 2018.

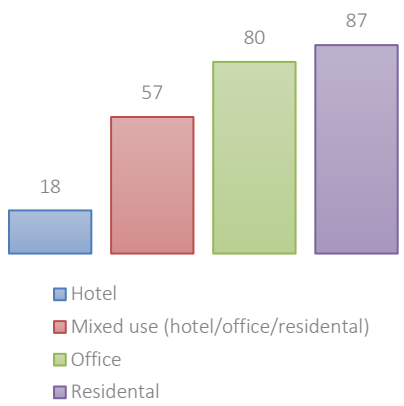
Figure 4.12: OIC Buildings 200 Meters or Taller Completed by Years



Source: skyscrapercenter.com

In 2018, the OIC area witnessed more completed buildings of 200 meters' height or greater than in any other year, with a total of 26 completions (see Figure 4.12). Dubai completed the greatest number of 200-meter-plus buildings in 2018 (10 buildings), marking the record after 2010, when 12 such buildings were completed in the city.

Figure 4.13: Completed OIC Buildings 200 Meters or Taller by Function (2018)

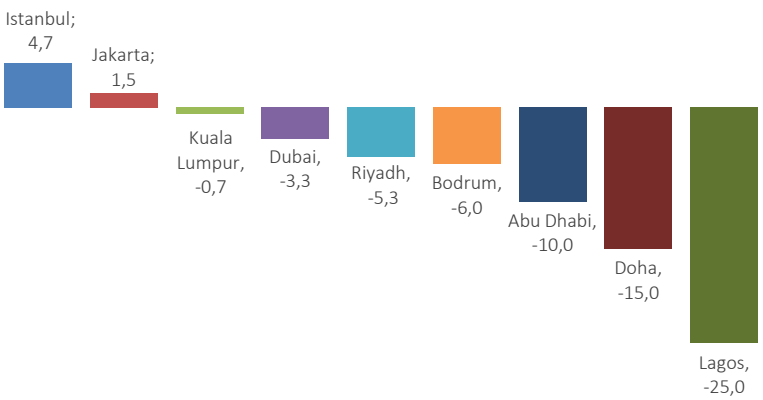


Source: skyscrapercenter.com

Construction of high buildings is no longer confined to financial and business centres, but rather is becoming the accepted global model for densification, as thousands of people in OIC area urbanize each week. The functional share of tall OIC buildings shows a shift from all-office and mixed-use function to all-residential towers. In 2018, out of 242 completed 200-meter-plus buildings, 87 or 36% of total were with all-residential functions. All-office buildings are second most frequent type of 200-meter-plus buildings in OIC area (see Figure 4.13).

Knight Frank's Annual Prime International Residential Index (PIRI 100), tracks the changes in prime residential markets[3] of 100 of the world's most popular or important ski, sun and city locations, including 10 OIC cities. According to this index, from December 2016 to December 2017, Istanbul prime residential market outperformed other OIC cities presented in Figure 4.14, with a price growth of 4.7%. Jakarta follows Istanbul, with prime prices up by 1.5%. In 2017, prime residential markets of Abu Dhabi (-10%), Doha (-15%) and Lagos (-25%) all saw double-digit negative growth. Prime market prices have been stagnating or falling in other OIC cities covered by PIRI (Figure 4.14).

Figure 4.14: Luxury Residential Market Performance (2017, %)



Source: Knight Frank, *The Wealth Report - Global Perspective on Prime Property and Investment*, 2018.

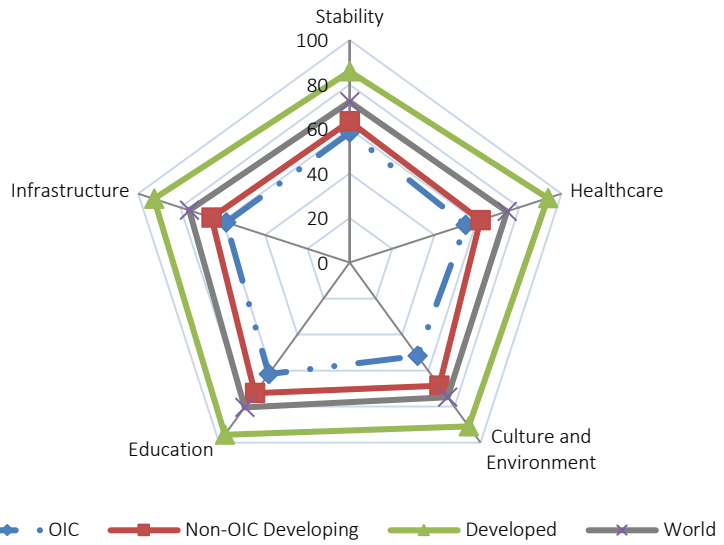
[3] Prime property: The most desirable and most expensive property in a given location, generally defined as the top 5% of each market by value. Prime markets often have a significant international bias in terms of buyer profile.

4.3 Sustainability

Several indexes measure the sustainability of cities. Although the objectivity of the criteria used for ranking the urban success stories may always be questioned - particularly due to the lack of data at city level, indexes provide valuable insights on city performance, helpful for identifying challenges associated with sustainable urbanization. All of indexes and rankings discussed below have a robust and transparent methodology.

One of the most respected rankings is the Global Liveability Index published by the Economist Intelligence Unit (EIU), which assess cities and ranks them according to their stability, healthcare, culture and environment, education and infrastructure. Only cities or business centres that people might want to live in or visit, as determined by the surveys, are included to the index.

Figure 4.15: The EIU Global Liveability Index 2015



Source: EIU, *The Global Liveability Index 2015*, Economist Intelligence Unit, August 2015.
Notes: Scores are on a scale of 1 to 100 where 1 means intolerable and 100 ideal.

According to the Global Liveability Index 2015, the highest ranking among the OIC cities is Kuala Lumpur, which, out of 140 cities globally, ranks 73, ahead of Dubai (75), Abu Dhabi (79), Kuwait City (83) and Doha (85). On the opposite side, Dhaka ranked second least-liveable city (139), while Lagos (137), Tripoli (136), Karachi (134) and Algiers (134) complete the bottom five among OIC cities. Total number of OIC cities covered with this index is 29. Unfortunately, the scores of OIC cities remain below the world average in all sub-categories (Figure 4.15). In a scale from 1 to 100 where 1 means intolerable and 100 ideal, the OIC cities got greatest score in education (62) and lowest one in culture and environment (52).

Mercer, a human resources consultancy firm, releases the Quality of Living Index, which looks at which cities provide the best quality of life. Index ranks 55 OIC cities out of 231 cities across the world, were living conditions are analysed by 10 categories, including political and social environment, economics, culture, heath, education, public services and transportation, recreation, consumer goods, housing and natural environment. Dubai, which comes in at number 74, is positioned as the city offering the best quality of life in the OIC countries (Look at Table 4.4). Abu Dhabi (77), Kuala Lumpur (85), Johor Bahru (101) and Muscat (105) follow Dubai. At the bottom of the list, among the OIC cities Baghdad comes in last place (231), behind Sana'a (229), Khartoum (227), N'Djamena (226) and Conakry (222).

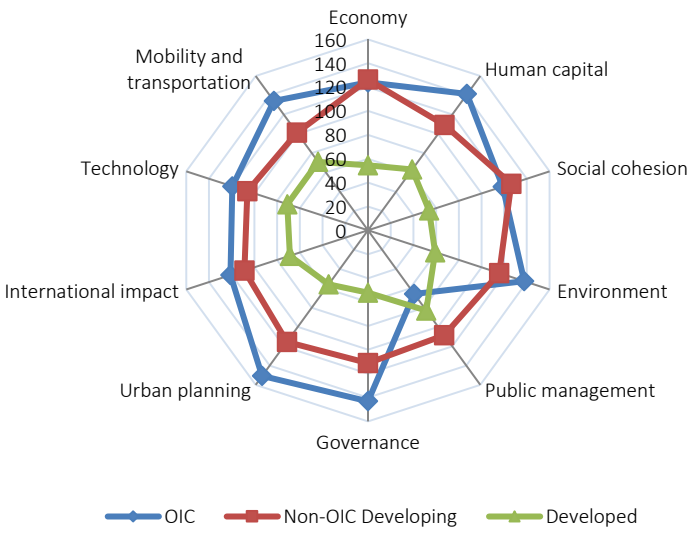
The Mercer also ranks 209 cities, including 47 OIC cities, in its Cost of Living Survey, which measures the cost of more than 200 items including housing, transportation, food, clothing, household goods and entertainment. 2017 Survey finds N'Djamena, the capital and largest city of Chad, as OIC's most expensive city for expatriates, ranking it as a 15th most expensive city worldwide. Dubai (19), Abu Dhabi (22), Lagos (28) and Libreville (32) comprise the rest of the top five most expensive OIC cities. The world's least expensive city for expatriates is Tunis (209), according to the Cost of Living Survey. The other least expensive OIC cities are Bishkek (208), Karachi (201), Banjul (192) and Nouakchott (189). It should be noted that cost of living in a surveyed cities is directly affected by national currency fluctuations, in particular against the U.S. dollar (Table 4.4).

The IESE Business School in Spain prepares the Cities in Motion Index, which ranks the world's 180 "smartest" cities - those that have the highest levels of innovation, sustainability, and quality of life. The authors analyse 79 indicators across 10 different dimensions of urban life: the economy, technology, human capital, social cohesion, international outreach, the environment, mobility and transportation, urban planning, public administration and governance.

The most upsetting fact of Cities in Motion Index is that only 23 OIC cities succeed to be listed among the world's smartest cities in 2017. Abu Dhabi (64) emerges as the smartest OIC city. Dubai takes second place (66) within OIC, followed by Kuala Lumpur (92), Istanbul (104) and Jeddah (120). Karachi ranked last among all 180 cities researched. After Karachi, the bottom OIC cities are Lagos (179), Douala (176), Amman (175) and Casablanca (171). Ranking based on different dimensions indicates that in public management the OIC cities on average have the best position worldwide (see Figure 4.16). In social cohesion and economy dimensions, the OIC cities on average perform slightly better than cities in non-OIC developing countries. However, in remaining seven dimensions of Cities in Motion Index, average ranks of OIC cities are below the averages of other country groups, with significant gap in urban planning, human capital and governance dimensions.

A.T. Kearney's Global Cities Index 2017, ranks 128 cities (26 from OIC countries) based on their business activity, human capital, information exchange, cultural experience and political engagement. The index aims to measure the influence of cities over what happens beyond their borders and investigate their integration with global markets, culture, and innovation.

Figure 4.16: IESE Cities in Motion Ranking (2017)



Source: IESE.
Notes: Each dimension has a rank of 1 to 180, with a lower rank representing a better outcome in the respective dimension.

The top ranked OIC city in the Global Cities Index is Istanbul (25), which offers a relatively higher level of business related activity, access to some of the world's best educated people, adequate information exchange, and a strong cultural heritage. Dubai (28) comes as second globally important OIC city, followed by Kuala Lumpur (49). Jakarta (56) and Cairo (62) close the top five. Khartoum (126), Muscat (125), Baghdad (118), Alexandria (113) and Lahore appears as least global OIC cities (Table 4.4).

The Innovation Cities Index 2016-2017 prepared by innovation agency 2thinknow brings into attention which cities are the best places for innovation and investment. It assesses 500 cities worldwide. The ranking itself is based on 162 indicators including transportation system, broadband internet, conference facilities, entry regulations, public policies and services, start-up promotion programmes and many other physical or virtual drivers which form the pre-conditions for an innovation ecosystem. For the index, cities are classified in four categories: nexus (most innovative cities where a series of innovation ideas are been used across industries), hub (cities that have influence on innovation), node (cities that are globally competitive across many innovation segments) and upstart (cities that are not quite globally competitive yet, but with broad improvement across multiple indicators can achieve node status).

Table 4.4: The Rank of OIC Cities in Global Indexes (top and bottom five)

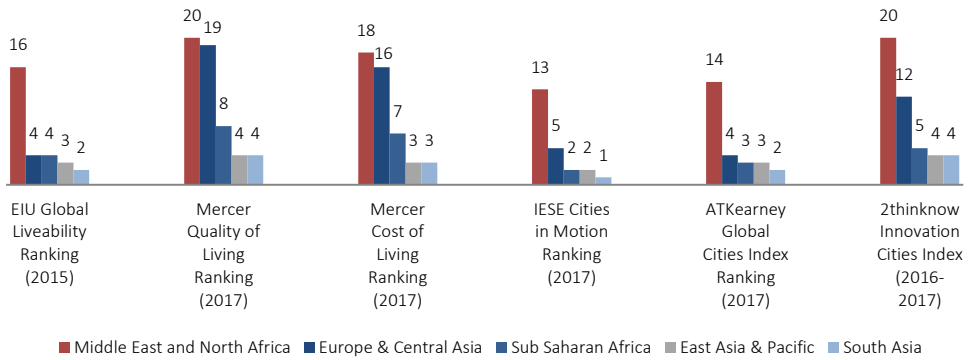
EIU Global Liveability Ranking (2015)			Mercer Quality of Living Ranking (2018)			Mercer Cost of Living Ranking (2017)		
		Top five			Top five			Top five
Malaysia	Kuala Lumpur	73	UAE	Dubai	74	Chad	N'Djamena	15
UAE	Dubai	75	UAE	Abu Dhabi	77	UAE	Dubai	19
UAE	Abu Dhabi	79	Malaysia	Kuala Lumpur	85	UAE	Abu Dhabi	22
Kuwait	Kuwait City	83	Malaysia	Johor Bahru	101	Nigeria	Lagos	28
Qatar	Doha	85	Oman	Muscat	105	Gabon	Libreville	32
		Bottom five			Bottom five			Bottom five
Algeria	Algiers	134	Guinea	Conakry	222	Mauritania	Nouakchott	189
Pakistan	Karachi	134	Chad	N'Djamena	226	Gambia	Banjul	192
Libya	Tripoli	136	Sudan	Khartoum	227	Pakistan	Karachi	201
Nigeria	Lagos	137	Yemen	Sana'a	229	Kyrgyzstan	Bishkek	208
Bangladesh	Dhaka	139	Iraq	Baghdad	231	Tunisia	Tunis	209

IESE Cities in Motion Ranking (2017)			ATKearney Global Cities Index Ranking (2017)			2thinknow Innovation Cities Index 2016-2017		
		Top five			Top five			Top five
UAE	Abu Dhabi	64	Turkey	Istanbul	25	UAE	Dubai	28
UAE	Dubai	66	UAE	Dubai	28	UAE	Abu Dhabi	68
Malaysia	Kuala Lumpur	92	Malaysia	Kuala Lumpur	49	Turkey	Istanbul	81
Turkey	Istanbul	104	Indonesia	Jakarta	56	Malaysia	Kuala Lumpur	92
Saudi Arabia	Jeddah	120	Egypt	Cairo	62	Indonesia	Jakarta	218
		Bottom five			Bottom five			Bottom five
Morocco	Casablanca	171	Pakistan	Lahore	111	Senegal	Dakar	489
Jordan	Amman	175	Egypt	Alexandria	113	Tajikistan	Dushanbe	493
Cameroon	Douala	176	Iraq	Baghdad	118	Nigeria	Port Harcourt	496
Nigeria	Lagos	179	Oman	Muscat	125	Cameroon	Douala	497
Pakistan	Karachi	180	Sudan	Khartoum	126	Sudan	Khartoum	499

Innovation Cities Index 2016-2017 covers 45 OIC cities, among which one is classified as nexus, 3 as hub, 22 as node and 14 as upstart. Dubai (28, nexus) is ranked as the OIC's most innovative city in 2016-2017. The rest of the top five innovative OIC cities are Abu Dhabi (68, hub), Istanbul (81, hub), Kuala Lumpur (92, hub) and Jakarta (218, node). The OIC cities at the bottom of Innovation Cities Index are Khartoum (499), Douala (497), Harcourt (496), Dushanbe (493) and Dakar (489).

Indexes and rankings presented above indicate that in OIC a lot of work has to be done for overall improvements in sustainable urbanization, particularly when compared with cities from developed countries. Abu Dhabi, Dubai, Istanbul and Kuala Lumpur are presented as most successful OIC cities in different categories of sustainable urbanization, while some of OIC cities with the bottom ranks have been devastated by conflicts and violence.

Figure 4.17: Geographic Distribution of the Ranked OIC Cities



Geographic distribution of OIC cities covered in above presented indexes points out to the domination of the Middle East and North African cities in international rankings (Figure 4.17). Cities from Europe and Central Asia are second category of most frequently ranked OIC cities. Less frequent appearance of cities from other OIC countries in global comparisons, witnesses the reality that not all OIC cities are advancing at the same pace.

Many OIC urban areas are victims of legacy of war and conflicts. For example, by February 2019 - two years after the battle in which Iraqi forces recaptured Mosul from IS, the local authorities did not own enough equipment to clear the rubble littered across the city (Davison, 2019). Some OIC cities could be considered as a victims of political failures at the national level. Indeed, national policy failures such as lagging infrastructure investments, regulatory deadlocks and misdirected social policies may be the main cause of urban unemployment, inequality, and poor schooling, housing or health care (Detter and Fölster, 2017). On the other hand, the OIC local governments may have a clear vision on how their cities should look like. However, in reality, promising local plans for city development are frequently left aside due to lack of funds.

Proponents of the free market claim that the market tends to achieve higher productivity and efficiency when left alone. In this context, they believe that city governments can do little for economic development, outside promoting urban competitiveness and making a city desirable for potential investors. Meanwhile, recommendation of opponents to this view is that city governments should more concentrate on the provision of collective goods and public amenities, since no evidence indicates clearly that the benefits of competitiveness and economic development will necessarily reach the majority of city residents (Kim and Short, 2018).

It is obvious from social development perspective and the facts on the ground that many cities are not able to fully exploit the benefits of agglomeration economies, as a result of congestion forces that follows from agglomeration. If investments in infrastructure and basic services are not able to keep pace with demand as more people and firms congregate in urban areas, or if the land and housing markets are lagging behind rising demand for urban property, mitigating congestion forces may be a difficult task (World Bank, 2015c). For that reason, most city policy agendas combine elements of both economic growth and social development arguments, what is recommendable for OIC cities as well.

CHAPTER FIVE

Social Impacts of Urbanization

Urbanisation is about people and about where these people are settled. In many parts of the OIC geography, where urban population grows without adequate economic development, urbanization is falling to meet the demands of urban dwellers, leading to increasing number of people deprived of minimum services. The visible result of this is an increase in precarious settlements in very vulnerable areas, the informal economies they create, and poor liveability for many inhabitants. For that reason, the potential of OIC's rapidly growing cities to drive social inclusion has not been fully tapped.

5.1 Housing and Informal Settlements

UN Habitat estimates that in developing countries approximately 180 thousand new urban residents need to access basic infrastructural services every day. To meet these needs, infrastructure sectors require investments worth approximately 70 trillion dollars between 2016 and 2030 (UN Habitat, 2015a). For Levy (2013), infrastructure has a significant political impact on urban residents – regardless of their social or economic standing – because of its influence on the value of land, security of tenure, and access to income and opportunities.

Generally, although conditions vary from country to country, the supply of affordable land and housing lags far behind demand. A rise in housing demand increases housing costs, in turn, making it difficult for low-income groups to afford adequate housing. As a result, people who are unable to access housing formally find shelter in informal areas such as slums or squatter settlements (Ooi & Phua, 2007). The alarming statistics on slums in the OIC countries - presented in Chapter 2, demonstrates that urban growth does not necessarily translate into prosperity for all and that slums emerge as a distinct form of settlement in many OIC metro areas. Moreover, urbanization has become virtually synonymous with informal settlement growth in the poorest parts of the OIC geography, especially in sub-Saharan Africa and South Asia, where annual growth of informal settlements and urban growth rates are almost identical. Unfortunately, the stories of those living in informal settlements without access to quality housing or basic services are rarely heard.

A fault in land and housing markets and lack of urban planning often results in poor populations residing in insecure private or public lands.[4] UNFPA (2018) argues that an increase in slums is a result of 'decisions to limit poor people's access to cities, through limited service provision to informal settlements or by forced evictions and resettlement of the urban poor to peripheral or under-serviced areas'. Indeed, many cities are encouraging or forcing residents from informal settlements to relocate to the urban periphery, but this approach has often created its own problems, as people are cut-off from social networks and access to employment opportunities. Walker, Frediani and Trani (2012) find that rehabilitating slum

[4] Generally, poverty in urban areas is determined by people's access to income and employment, their living conditions, access to adequate infrastructure and services, and their exposure to environmental risks. A combination of these determinants forms the basis of structural inequality that has long-term impacts on the urban poor.

dwellers to newer apartments can improve their access to basic services such as water and sanitation - however, these apartments often located far from the city centre, makes it difficult for a resident to carry out income-generating activities.

Image 5.1: An Aerial View of Informal Settlement in Orangi Town, Karachi

Source: Thomson Reuters Foundation/Aamir Saeed, 2016.
Notes: Informal settlements in Orangi Town, Karachi, believed to be home to around 2.4 million people. Locals ended up building their own sewers after waiting on the government to build them. Now more than 90% of Orangi Town's nearly 8,000 streets and lanes have sewerage pipes – all put in by residents.

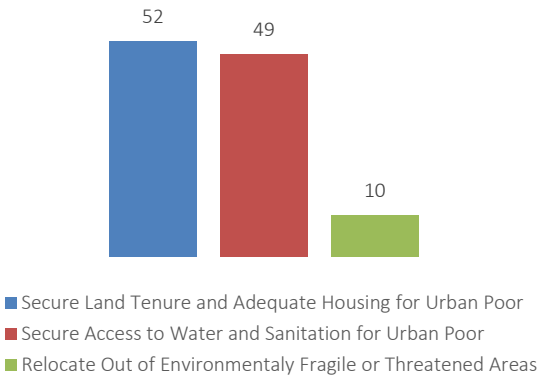
Informal residents in general do not have a security of tenure – although recognized by SDG 1 (target 1.4) as a key element in the eradication of the world's poverty. Improving tenure security for both women and men can have a greater impact on household income, food security and equity. Otherwise, living on insecure land means that urban poor are at a risk of evictions, which limits them from investing in valuable assets, being able to receive credit on their homes, or using their homes to set up cottage industries.

Security tenure is probably the most serious structural challenge for OIC urban areas, because it lies at the heart of challenge of improving the access to adequate housing. In this context, Albania could serve as a good example in legalization of informal settlements. For almost two decades after the fall of communism, the Albanian government had no option but to allow the widespread informal development. As a result, approximately two thirds of buildings in urban areas in Albania are informal developments, many of them without connections to basic infrastructure, causing supply problems for fresh water, electricity and lack of sewerage systems. As a solution to this problem, in 2006 Albanian Parliament adopted a law for legalization of illegal settlements and construction (Mane, 2017).

Another good example in formal recognition of informal properties recently came from Afghanistan, where following the Presidential Decree on the Registration of Properties in

Urban Informal Settlements, in 2018 the government officially launched the issuance of land occupancy certificates for residents of informal urban areas.

Figure 5.1: OIC Governments with Policies or Strategies in the Past Five Years to Improve Living Conditions of Urban Poor (2015)



Source: UN, *Policies on Spatial Distribution and Urbanization: Data Booklet,* United Nations, Department of Economic and Social Affairs, Population Division (2016).

In fact, by 2015, majority of OIC governments have adopted policies, strategies or measures to improve access to water and sanitation, and to secure land tenure and adequate housing for the urban poor, as can be seen from Figure 5.1. However, growing presence of informal settlements in OIC area indicates to a problem of adequate implementation of such policies.

By 2015, Lebanon and Uzbekistan did not report to have such policies at all, while Brunei, Palestine, Turkmenistan and Yemen were lacking policies to secure land tenure and adequate housing for the urban poor.

In order to build a sustainable and inclusive city, it is crucial for OIC local governments to create rules adapted to informal settlements, and it is important to work closely with its inhabitants. Otherwise, socioeconomic consequences for entire society may be very negative.

Slums expose its dwellers (urban poor) to avertable risks. These risks include biological risks such as diseases caused by unsafe water or poor sanitation, chemical risks caused by pollution, hazardous waste, chemical or industrial processes; physical risks caused by accidents or natural disasters such as harsh climate, floods, earthquakes, etc., and socio-political risks such as incidents of terrorism, social conflicts, organized crime, etc. (Twigg, 2015). For urban poor, many of these urban risks can be averted simply by improving the state of housing. However, as Figure 5.1 shows, by 2015 only 10 OIC governments (Cameroon, Cote d'Ivoire, Egypt, Indonesia, Maldives, Mozambique, Oman, Senegal, Suriname and Tajikistan) has adopted policies or strategies in the past five years, aimed at relocating people out of environmentally fragile of threatened areas.

The urban poor face significant biological and chemical risks, depending on where they live, the condition of their housing (overcrowding, building durability, etc.), and their income. More often than not, peripheral urban slums are located near industrial polluters that dump harmful waste in landfills or water bodies.

Image 5.2 Air Pollution in Jakarta

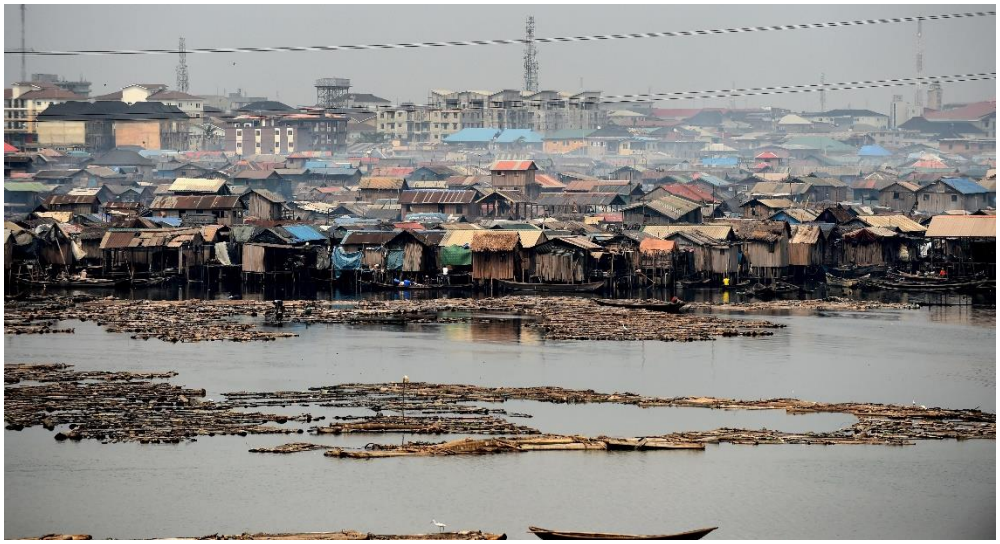
Source: AFP
Notes: Dramatic images from the cities make visible the impact of air pollution. However, what these images do not capture is the full scope of the profoundly negative human consequences. Each year globally more than 3 million people die of diseases triggered by air pollution, and this is only one of many health challenges facing urban centres today.

Without adequate access to water, sanitation, or waste disposal, poor populations further add to polluted landfills and water bodies (UN Habitat, 2015b). As a result, the levels of household air pollutants, unsafe water, sanitation and hygiene (WASH) services, and toxic materials become causes for a rise in non-communicable diseases and – in worst-case scenarios – mortality. In OIC member countries, deaths caused by household and ambient air pollution is significantly high, even in relatively more developed countries such as Albania. On the other hand, deaths caused by exposure to unsafe WASH services are higher across sub-Saharan African countries, due to a higher proportion of slum dwellers.

According to Dal Poz et al. (2009), poor urban populations are often 'invisible' to the health sector due to where they live – especially in countries where majority of health services are privatized. On the other hand, various studies establish a clear link between increased urbanization and rise in non-communicable diseases, especially in low and middle-income countries (Mathers & Loncar, 2006; Abegunde, et al., 2007; Geneau et al., 2010; WHO, 2013). Moreover, the World Health Organization categorizes high urbanization rate as a 'Public Health Safety' issue, because large populations living in proximity of slums and squatter settlements are more likely to accelerate the spread of pandemic diseases such as Influenza, Ebola, Zika Virus etc. (2015). Nevertheless, the impact of unmanaged urban development

extends beyond poor health; it increases poverty and inequalities, and reinforces exclusion and vulnerability.

Image 5.3: Makoko Slum, Lagos, Nigeria



Source: AFP.
Notes: Makoko is an area of six collective slum villages. Four of the villages are floating on water in the lagoon and two are situated on land. Issues that face this community include malnutrition, childbirth and diseases like malaria. Estimates of how many people live there vary staggeringly from 30,000 to 250,000.

5.2 Informal Economy and Inequality

Along with informal settlements, the expansion of informal sectors represents another defining feature of the metropolitan areas with a large and fast-growing population. The informal economy can be roughly defined as a group of economic activities not regulated by the government. Some OIC cities report strikingly high estimates of informal employment, as it is a case with 65% in Dhaka and Jakarta (Kim and Short, 2008).

According to Bacchetta, Ernst, and Bustamante (2009), the informal economy accounts for almost 30 to 70% of the annual GDP in many developing countries. In particular, a maturing informal economy consolidates a platform for broader economic recovery, stabilisation and peace. However, given that it is unregulated, informal economies can result in exploitation, mistreatment and abuse.

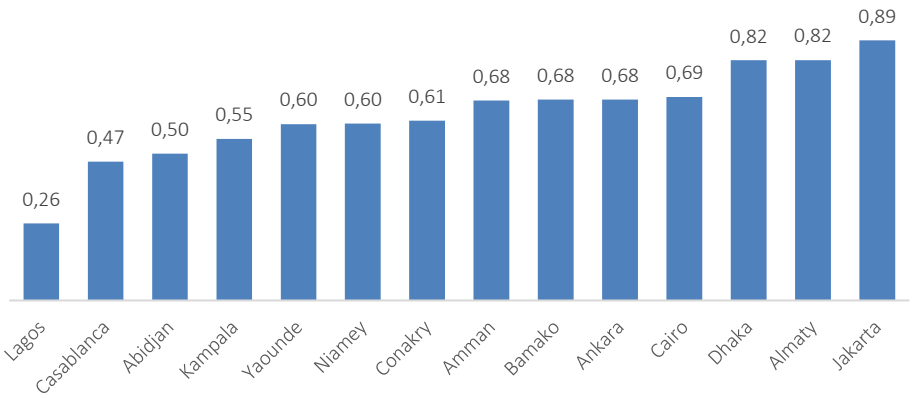
Most academics distinguish the unregulated production and distribution of otherwise licit goods and services from those conventionally labelled criminal activities. For example, in a low-income country many formal workers, such as public schoolteachers, need to find second jobs in the informal sector, to earn living wages. For that reason, the International Labour Organization (ILO) advocates for increased governmental support for informal work, as it sees informal occupations as ways for the poor to get a job (Kim and Short, 2008). Notwithstanding,

neo-liberal policies have imposed significant reductions in state capacity both in regulating the informal sector and in subsidizing it.

Generally, in slums, services are provided on the basis of time (a few hours a day), through private/informal service providers, or for communal use – resulting in services that are either of low quality or unreliable. Moreover, poor urban households tend to spend more on private informal service provision as compared to more prosperous urban households. For example, Karuiki and Schwartz (2005) find that private providers charged 1.5 times more for piped water, 4.5 times more for water points and 12 times more for mobile distribution in slums, as compared to the public water network.

People residing in localities such as the slums or squatter settlements face difficulty in finding jobs due to infrastructural issues and negative stigma associated with their place of residence. In many cases, peripheral informal urban areas are cut off from city centres due to the lack of transportation, telecommunication and other urban services. In this context, urban poor face another disadvantage because they are most likely to work in the informal sector, characterized by poor regulations, low wages, lack of social security and poor working conditions. All these further deepen the process of the 'urbanization of poverty'. For that reason, as shown at Figure 5.1, the heavily populated OIC cities such as Lagos (0.26), Casablanca (0.47) and Abidjan (0.50) have some of the lowest Equity Index scores - highlighting major inequity and social exclusion in these cities.

Figure 5.2: Equity Index Score for Some OIC Cities (2012-2013)



Source: UN Habitat.
Notes: The index measures equity based on GINI coefficient, poverty rate, slum households, youth unemployment, and equitable secondary school enrolment. Higher scores show relatively better performance in these areas.

The New Urban Agenda promotes the principle of 'right to cities and cities for all' because international community realize the impacts of inequalities faced by vulnerable and excluded urban populations. According to World Bank (2013), there are significant social, political and

economic costs of excluding certain groups such as poor, migrants, youth, women, disabled and elderly.

For governments, it is often easier to focus on urbanization as a tool of 'economic growth' rather than 'inclusive growth' because it is more profitable for various stakeholders (McGranahan, Schensul and Singh, 2016). More often than not, inclusion and economic profitability are placed on the opposite ends of a political spectrum – where the idea of inclusive economies can seem contentious. Yet, governments and policy makers increasingly realize the costs of exclusion – which often affect the economic prosperity of cities. For example, collective social exclusion is largely responsible for influencing certain behaviours and opportunities in large slums, explaining the prevalence of certain trends such as drug use, prostitution, violence and crime (Baker, 2008). In some cases, improving the physical urban environment through planning, infrastructure expansion, creation of public spaces, as well as investing in durable housing for low-income groups has resulted in the reduction of crime and violence in vulnerable areas (Muggah, 2012).

Urbanisation is inevitable, and cities must have adaptive policies in place to incorporate newcomers and give them non-discriminatory access to the cities' services. Moreover, national governments should also engage and commit to creating safer environments for their citizens, and ensure that the design of cities does not continue be based on economic and political interests, but rather people-centred, which means designing a city with and for its people.

5.3 Migrations and Humanitarian Challenges

Urbanization refers to the increase in the proportion of the population that lives in towns and cities. Accordingly, urbanization involves a shift in the distribution of population from rural to urban locations (Clark, 2000: 17). Millions of people are moving to urban areas where quality of public services, health and education possibilities and the overall standards of living are usually higher. The presence of financial institutions, marketplaces, and entertainment centers in cities are also incentives for many people to leave their rural environment (Spellman, 2010: 303).

The dominant direction of movement in internal migration is from rural to urban settings. Some urban to rural migration occurs where subsistence or family support is deemed more attractive than the limited city opportunities. On the other hand, urban to urban migration occurs especially in the case of professionals, technicians and other talents - for which cities compete with each other to attract them. In this context, migrations are very important for development of cities. Otherwise, loosing qualified people will affect city's future and ability to develop (Roberts, 1994).

People do not only move from rural environments to cities within their own country. For different reasons, migrations are taking place across national boundaries as well. The number of internationally migrating people has been on the rise globally reaching 258 million people

in 2017 (UN, 2017). Therefore, many countries in the world, particularly developed countries, now have multicultural populations, while their major cities became a kind of emigrant hubs.

The most important factor prompting migration throughout the thousands of years of human existence was economic (Domosh at al., 2010: 86). Economic migrants have a greater degree of choice in determining their destination. They are more selective and move to where they belief will allow them to enjoy better economic conditions and living standards. In recent times, brain drain has been exacerbated by globalization and the internationalization of professions, which has increased economic mobility of people across country boundaries (Iredale, 2001; Shenkar, 2001; Stalker, 2000).

One of the most effected groups of OIC countries by economic migration are the Gulf Cooperation Council (GCC) member states. Due to the economic oil boom of the seventies of the last century, GCC countries embarked on a rapid pace of economic development. In that period, the labour in terms of quantity and quality could not be supplied internally. For that reason, huge numbers of people from all quarters of the globe moved to the GCC area. Today a large portion of the people living in GCC member states are non-nationals. Cities like Dubai, Abu Dhabi and Doha have an overwhelming majority of its residents who were not born there. For example, almost 83% of the population of Dubai are foreign-born.

Nevertheless, not all human movements are the result of choices, such it is a case with forced migrations. In contrast to economic migration, people forced to migration tend to seek the closest possible place of safety – to the nearest city or across an international border to the closest refugee camp or market center, because they often cannot afford to go any further. For example, over the recent years two OIC countries have been a major source of humanitarian migrants: Afghanistan and Syria. First, Afghanistan was a major source of humanitarian emigrants, with Pakistan and Iran becoming their main destination countries. Later Syria replaced Afghanistan as the main source of humanitarian immigrants with the neighbouring countries of Jordan, Lebanon and Turkey becoming their main destination countries.

Amman the capital of Jordan is a great exhibit of city impacted by humanitarian migration. Between 2004 and 2015, the city's population more than doubled as a result of migration from neighbouring countries affected by conflicts. In 2017, Amman stood as the second-largest host of refugees per capita in the world (WEF, 2017). Istanbul is another city home to many humanitarian migrants. Istanbul alone was home to 539,000 Syrians, at last count in 2016 (WEF, 2017). Gaziantep in the southern of Turkey is a city with a population of 2 million people. One quarter of the population of Gaziantep are Syrian refugees.

Table 5.1 provides an example of OIC cities affected by displacement. In Middle East region, cities of Jordan Zarqa, Irbid, Mafraq, Russeifa and Ma'an, cities of Lebanon Tripoli and Halba, cities of Syria Lattakia, Tartous, Hama and Idlib, cities of Iraq Erbil and Sulaymaniyah, as well as cities of Turkey Urfa, Gaziantep and Kilis appears to be under widespread stress from displacement.

Table 5.1: Impact of Displacement on Some OIC Cities

Country	Cities with Localized Displacement Impact	Cities under Widespread Stress from Displacement	Cities Heavily Affected by Conflicts/Disaster
Jordan	*Amman*	*Zarqa, Irbid, Mafraq, Russeifa, Ma'an*	
Lebanon	*Beirut*	*Tripoli, Halba*	
Syria	*Damascus*	*Lattakia, Tartous, Hama, Idlib*	*Aleppo, part of Homs, Raqqa*
Iraq	*Baghdad*	*Erbil, Sulaymaniyah*	*Mosul, Kirkuk, Ramadi*
Turkey	*Istanbul, Ankara*	*Urfa, Gaziantep, Kilis*	

Source: World Bank, Cities Of Refuge In The Middle East: Bringing an Urban Lens to the Forced Displacement Challenge, 14 September 2017.

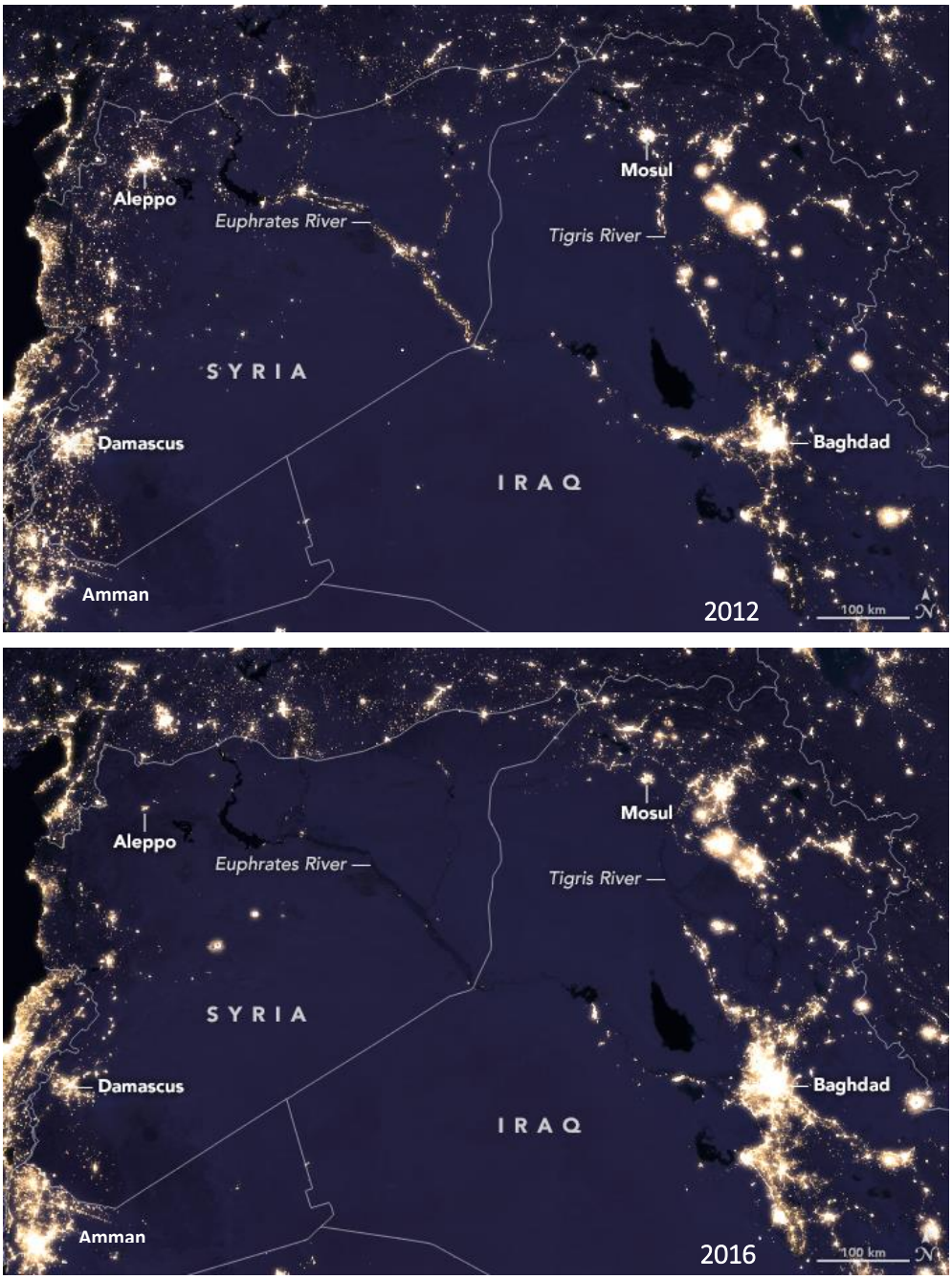
The nighttime satellite images provides an important tool for assessing the impact of displacement on cities. For example, Map 5.1 provides a snapshot of nighttime satellite images in Middle East, highlighting the difference between 2012 and 2016, driven by both the region's general population growth rates and influx of the forcibly displaced people.

According to map, the changes are most dramatic around Aleppo, but also extend through western Syria to Damascus. Over the four years, lighting increased in areas north of the Syrian border in Turkey and to the west in Lebanon. In Iraq, some northern sections near Mosul saw a decrease in light over the four years, while areas around Baghdad, Irbil and Kirkuk saw increases. Increase in lighting around Amman is also very visible. The change in electric light patterns along the Tigris and Euphrates river basins are also remarkable.

Unfortunately, the OIC area is prone to conflicts and disasters. The humanitarian challenges in OIC geography are greater than ever, and drivers of humanitarian crises are increasingly becoming chronic or protracted in nature. Over last few decades, some OIC countries have passed through challenges of which they will be recovering for a long time. Moreover, in recent years, the OIC geography has become less peaceful and vulnerable civilians continue to be targeted. In 2017, near 50% of world's wars and limited wars, as well as 38% of violent crisis took place in the OIC countries (HIIK, 2018).

Natural disasters are also causing humanitarian challenges. More than 800 million people in the OIC area were affected from natural disasters since 1970 (EM-DAT). Only recently, earthquakes with and without tsunamis in August, September and December 2018 in Indonesia, claimed the lives of over 36 hundred people. On the other hand, September 2018 flooding in Nigeria displaced more than half a million people and destroyed more than 13,000 homes. As a result, from Syria to Nigeria, today human sufferings are challenging OIC geography. In 2017, 89 million people or about one person in 20 across the OIC area was in need of humanitarian assistance. Suffering of those people is often extreme, especially where conflict, terrorism, or both, are at the root of the problem.

Map 5.1: Night Lights Change in the Middle East (2012, 2016)

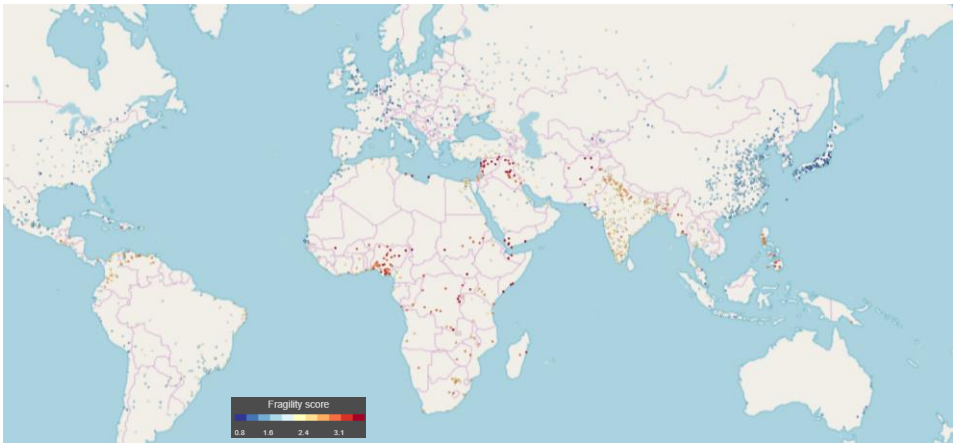


Source: NASA Earth Observatory.

Globally, more than 60% of forcibly displaced live now in urban areas. In MENA, the share is even higher – an estimated 80-90% live in towns and cities (World Bank, 2017). In general, the shift in displacement from camps to cities, calls for a paradigm change in work with displaced populations. Otherwise, urban systems can be stretched by the sudden and unplanned arrival of displaced people. Moreover, informal settlements, urban poverty, further displacement risk and overall fragility of a city can increase.

A consortium led by the Igarapé Institute, United Nations University, World Economic Forum and 100 Resilient Cities launched an initiative to better understand the distribution of urban fragility and resilience, and examined the core characteristics of fragility in over 2,100 cities with populations of 250,000 or more. Cities were graded across 11 variables, including urban population growth rate, unemployment, income inequality, access to basic services (electricity), levels of pollution, homicide rate, terrorism-related deaths, conflict events and natural hazards (including the extent of city population exposure to cyclones, droughts and floods). In 2015, cities of Yemen Ta'Izz, Ibb, Aden, Al-Mukalla and Sana'a, as well as Mosul (Iraq), Bamako (Mali) and cities of Somalia Mogadishu and Kismaayo took scores 4.00 or more, which is pointing to a high fragility. The OIC cities with fragility scores above 3.00 – considered to be relatively high, are listed in the Map 5.2.

Map 5.2: Fragile Cities (2015)



Source: Igarapé Institute.
Notes: Scores are on a scale from 1 to 4.5, with 1 indicating low fragility and 4 indicating high fragility. Following OIC cities' score found to be 3.0 or more: Afghanistan (Kabul 3.80, Kunduz 3.63, Balkh 3.56, Kandahar 3.56, Herat 3.11); Iraq (Al-Mawsil/Mosul 4.13, Baghdad 3.88, Faloojah 3.71, Ramadi 3.71, Baaqoobah 3.57, Kirkuk 3.50, Sulaimaniya 3.38, Karbala 3.13, Al-Basrah/Basra 3.00, Nasiriyah 3.00, Najaf 3.00); Lebanon (Tripoli 3.13), Libya (Misratah 3.75, Banghazi 3.43); Mali (Bamako 4.00); Nigeria (Gombe 3.67, Maiduguri 3.56, Kaduna 3.44, Warri 3.33); Pakistan (Peshawar 3.00, Faisalabad 3.00); Somalia (Mogadishu 4.50, Kismaayo 4.25, Hargeysa 3.67, Merca 3.50); Sudan (Nyala 3.67, Wad Madani 3.11); Uganda (Kampala 3.30); Yemen (Ta'Izz 4.38, Ibb 4.38, Aden 4.38, Al-Mukalla 4.38, Sana'a 4.00, Al-Hudaydah 3.88). Syrian cities are excluded.

5.4 Socioeconomic Priorities of OIC Cities

In the context of preparation of this report, the SESRIC launched an online survey targeting the senior OIC local authorities. Officials from Afghanistan (Kabul), Egypt (Alexandria), Jordan (Amman, Irbid, Ma'an), Kyrgyzstan (Bishkek), Malaysia (Kuala Lumpur), Pakistan (Gilgit, Islamabad, Karachi, Lahore, Muzaffarabad, Peshawar), Saudi Arabia (Madinah) and Turkey (Balıkesir, Denizli, Diyarbakır, İzmir, Kahramanmaraş, Şanlıurfa) supported the survey by sharing their insights which are useful in analysing the socioeconomic perceptions and challenges of OIC cities. Main findings of the survey are presented below. For each question, number of OIC cities is equal to the total number of responses to that question.

Figure 5.3: Level of Employment In City

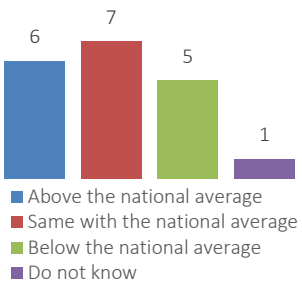
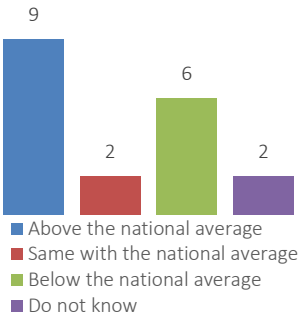


Figure 5.4: Average Income In City



In most surveyed OIC cities, there is a positive opinion on the level of employment and average income in city, although the main economic problem of most OIC countries is unemployment. 68% of city representatives share the opinion that the level of employment in their city is above the national average or same with it (Figure 5.3). 47% of respondents reported that average income in their city is higher than the national average (Figure 5.4).

Figure 5.5: Immigration Trend into City

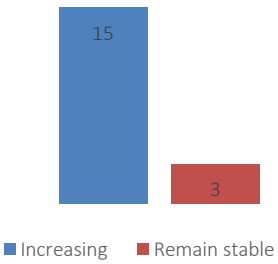


Figure 5.6: Impact of Migration on Labour Market

The mood is more negative in most OIC cities related to migrations. Majority of senior OIC local authorities observed an increase in immigration trend into their city during the last five years, while only three of them believe that immigration remained stable (Figure 5.5). Many

local authorities seems to be expecting significant increases in unemployment and rise in informality, because of migrations (Figure 5.6).

It is worth emphasizing that respondents are aware of the presence of slums, with three of them reporting to have city slum population above 30% (Figure 5.7). Moreover, all the senior local authorities are pointing out to the adequate housing deficit, with 36% of them who believe the deficit is large.

Figure 5.7: Population Living In Slums

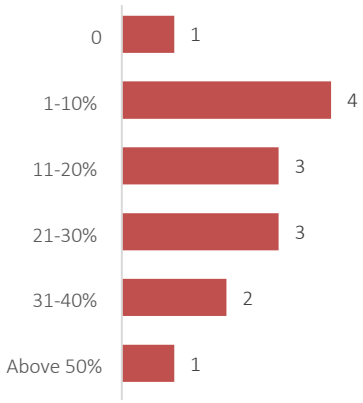
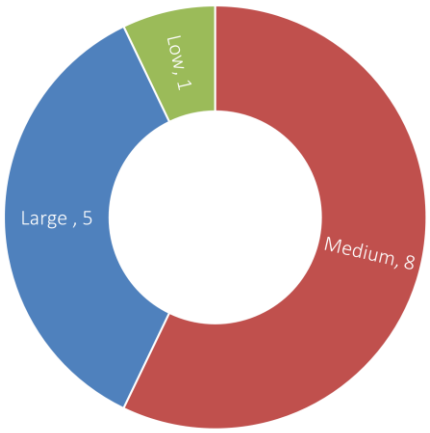


Figure 5.8: Adequate Housing Deficit



The most often-cited answers to the question asking the senior local authorities to name main challenges of higher urbanization were overburdened public services, inadequate housing, shrinking green areas and public spaces, overcrowding and congestion, as well as environmental degradation and pollution (see Figure 5.9)

Figure 5.9: Major Challenges Associated with Higher Urbanization

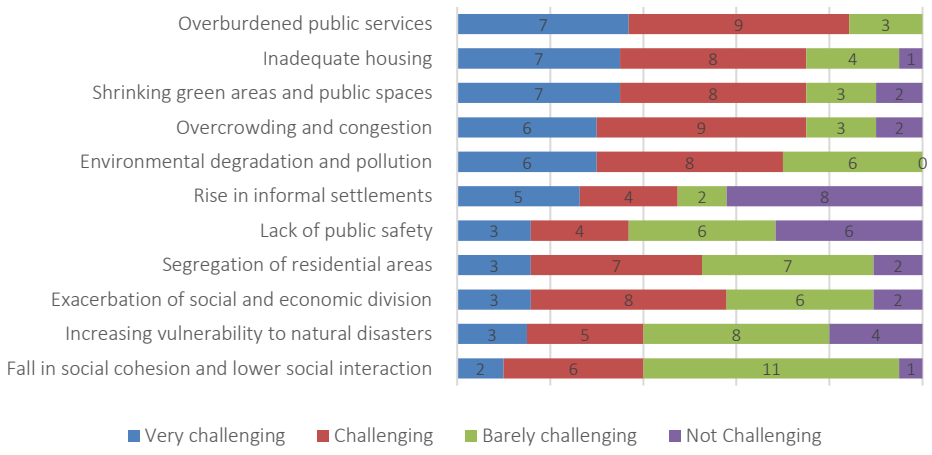
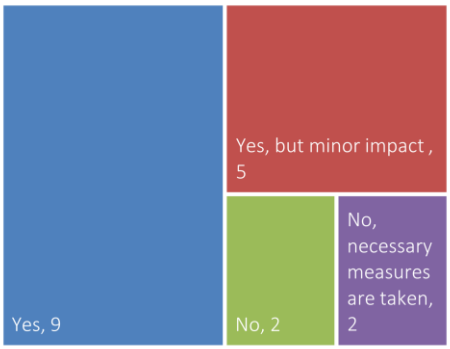


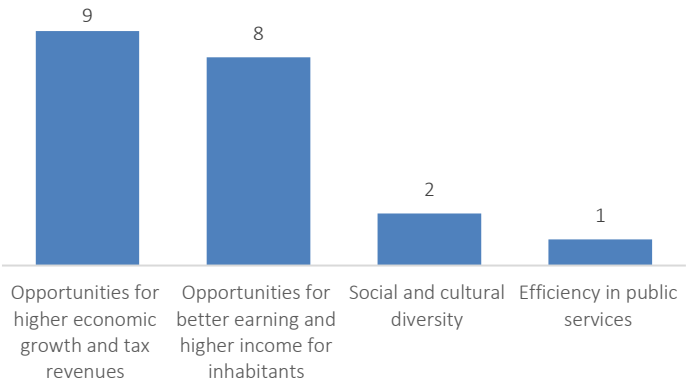
Figure 5.10: Presence of Major Environmental Impacts due to Increase in City Population



According to the survey results, the senior OIC local authorities are quite environmentally aware – above three quarters (77%) of respondent recognizes at least minor environmental impact due to increase in city population (Figure 5.10). Two of them reported that their cities took the necessary measures to reduce the harmful environmental impact of urbanization. Nevertheless, two of senior local authorities still do not recognize any environmental challenge related to increase in city population.

The local authorities are observant of the benefits associated with higher urbanization, particularly when it comes to economic growth and tax revenues, as well as opportunities for better earning. Yet there is one issue where almost all respondents agree: higher rates of urbanization does not lead by itself to efficiency in public services (Figure 5.11).

Figure 5.11: Major Benefits Associated with Higher Urbanization



Most of the respondents mention share of local revenues to be low in their city budgets. In majority of cases, proportion of local revenues in city budget does not exceed 20%. Only two officials reported to have high local revenues, one between 60-80% and another between 80-100% (Figure 5.12). When it comes to participation of CSOs and other relevant women and youth organizations in urban decision-making process, it seems that many OIC local authorities do not benefit enough from them, when planning and deciding about the future of their cities (Figure 5.13).

Figure 5.12: Proportion of Local Revenues in City Budget

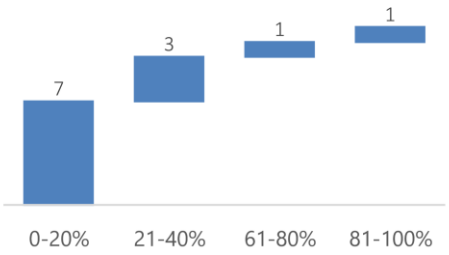
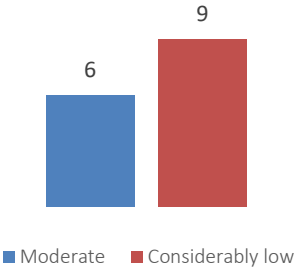
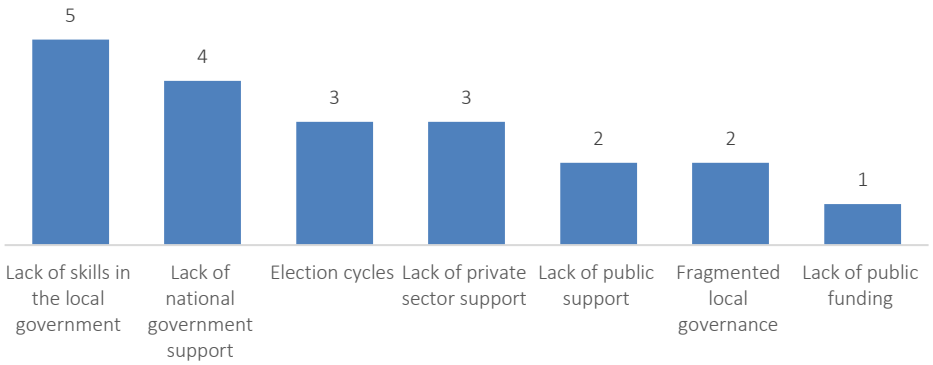


Figure 5.13: Participation of CSOs in Urban Decision Making



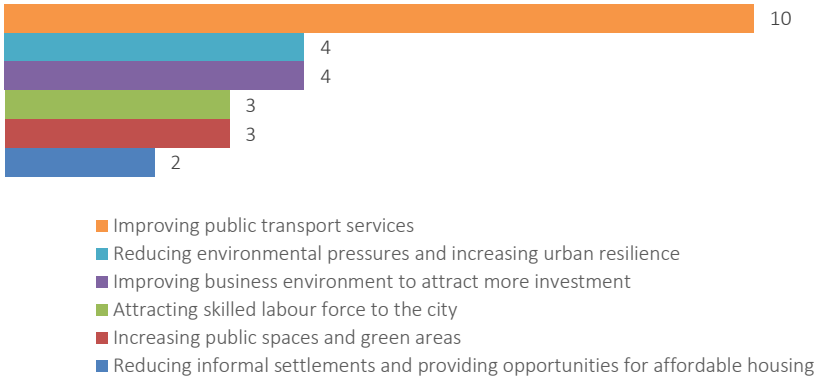
It is interesting to note that although among top problems, senior local authorities does not consider public funding among their major governance constraints. In total, nine respondents find lack of skills in the local government and lack of national government support to be the biggest barrier to their city governance. This is followed by the view that election cycles and lack of private sector support are the major obstacles to more successful local governance (Figure 5.14).

Figure 5.14: Major Local Governance Constraints



Almost half of senior local authorities believe improving public transportation services would affect their cities most positively. With exception of this field, which is rated by far as a priority over the next decade, increasing urban resilience and improving business environment to attract more investments, emerges to be significant for the relatively higher number of respondents (Figure 5.15). However, importance of reducing informal settlements and providing opportunities for affordable housing remains to be underestimated, as this issue takes the last place in the future priorities of given sample of OIC cities.

Figure 5.15: Major Issues that City will Focus over the Next Decade (Multiple Answers)



Although based on small sample, the messages from the survey are very clear. The OIC area has a lot of work to do to address the many important issues highlighted by the respondents, so as to keep the city economies growing.

CHAPTER SIX

Environmental Pressures and Urban Resilience

With high concentration of people, infrastructure and commercial activities, cities are exposed to increasing environmental pressures and instabilities. The most common environmental risks in urban areas include heatwaves, sea level rise, inland and coastal flooding, drought, water scarcity and storm surges (IPCC, 2014). However, cities are not just the victims of environmental anomalies but they are also major contributors to aggravation of their impacts. Being the epicenters of social and economic activities, cities are the leading consumers of energy and consequently, largest emitters of greenhouse gases, which are the primary driver of global warming and climate change. As a result, earth temperature is rising, timing and amount of rainfall is changing, level of precipitation become highly variable, and occurrence of extreme weather events like floods, draughts, heatwaves is more often compared to the past. Changes in these important variables have severe negative implications for human beings as they affect negatively the availability of necessities like food and water and deteriorate the health conditions.

Though cities in both developing and developed countries are exposed to one or more of climate risks, the level of vulnerability and impact depends largely on their geographical location, economic profile and adaptive capacities. In terms of contribution to greenhouse gas (GHG) emissions, cities in developing world, including OIC countries, are the lightest polluters. However, the most devastating effects of climate change disproportionally affect them. For example, climate change induced sea level rise will be the most catastrophic for Malé, Alexandria and Dhaka compared to coastal cities in developed countries that are the largest GHG emitters.

Against this backdrop, this chapter aims to provide information on the potential impacts of climate change on urban settlements and propose measures to reduce vulnerability to these impacts and natural hazards.

6.1 Environmental Performance

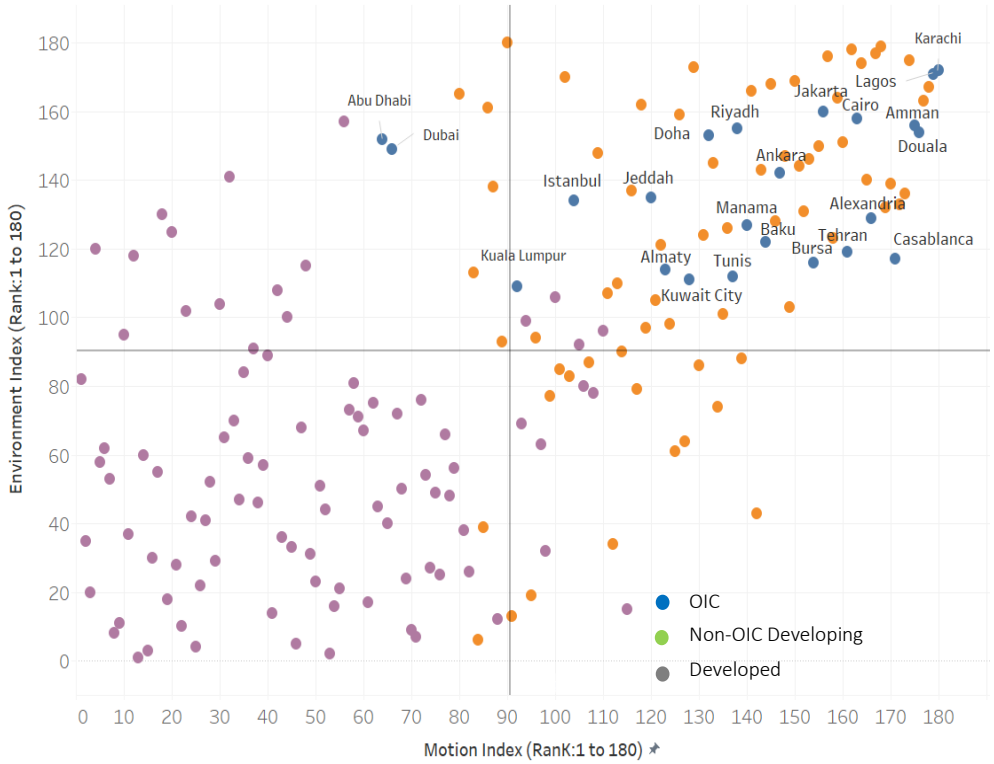
Given the large carbon footprint of cities, investigating their environmental sustainability and resilience is critical for effective assessment and policymaking. Nevertheless, in case of developing countries, including majority of OIC members, this is not an easy task. For the majority of cities in these countries, for example, data is scarce on GHG emissions, environmental governance and adaptive capacities. Consequently, a very limited number of cities from OIC countries are part of any international/regional effort to carry out a detailed data based evaluation of environmental pressures and resilience in urban areas.

Globally, there are many initiatives to quantify the environmental sustainability of cities to provide policy makers and the public with valuable information and insights. In evaluating the performance of major OIC cities in this report, the Cities in Motion Index (CIMI) prepared jointly by the Center for Globalization and Strategy and IESE Business School, University of Navarra, is chosen. The CIMI captures 10 dimensions in a single indicator, thus enabling the identification of strengths and weaknesses of 180 cities worldwide including 23 main cities

from 18 OIC member countries. The 10 key dimensions of CIMI include governance, urban planning, public management, technology, environment, international outreach, social cohesion, mobility and transport, human capital and economy. Though, most of such indices have both theoretical and technical shortcomings and their results should be interpreted with caution, they do provide an indicative measure of performance along with identification of policy directions for the future action.

According to the findings of CIMI for 2017, majority of OIC cities with data are ranked with average and low performance scores (Figure 6.1). With respect to overall position of cities based on CIMI ranking, Abu Dhabi is the most sustainable OIC city followed closely by Dubai and Kuala Lumpur. These three cities are listed among relatively high performing sustainable cities in the world with very good ranking in public management and international impact dimensions.

Figure 6.1: Environmental Performance of Major Cities (2017)



Source: IESE, Cities in Motion Index 2017.

Karachi is ranked as the least sustainable city followed closely by Lagos, Douala (Cameroon) and Amman. In fact, Karachi and Lagos are ranked at the bottom of 180 cities in the world. Among others, these cities are particularly lagging behind in urban planning, governance and environmental sustainability. The situation remains more or less the same when we consider the environmental dimension. Most of the OIC cities are ranked among the lowest performing

group, as shown in Figure 6.1. Kuala Lumpur is the most environmental-friendly city in OIC, followed by Kuwait city, Tunis and Almaty. On the opposite side of the scale, once again Karachi and Lagos are the lowest performing cities followed by Jakarta and Cairo.

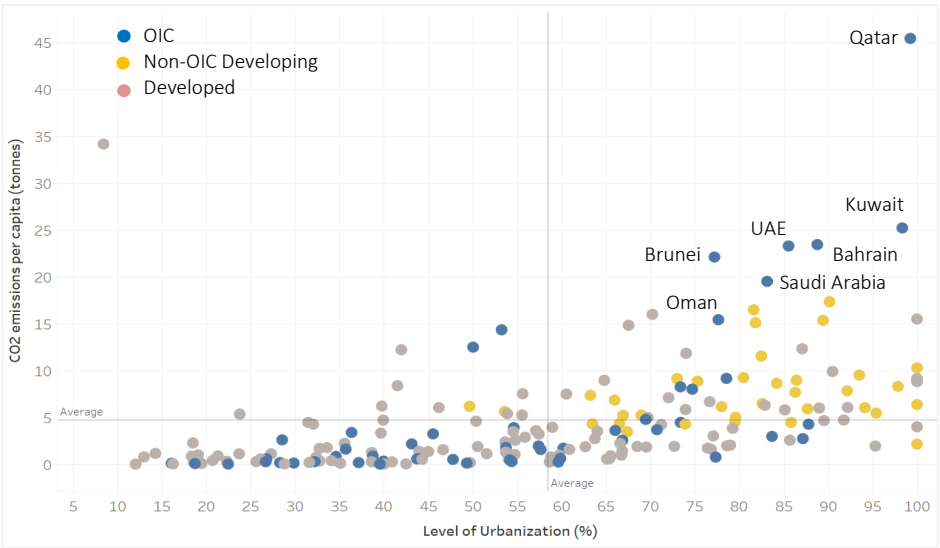
6.2 Cities and Climate Change

Carbon Emissions

Carbon dioxide (CO2) is the main contributor to the global Green House Gas (GHG) emissions and their increase since 1990s (IPCC, 2014). It is mainly generated from burning of fuel for household use, transportation and industry. Given the fact that consumption of fuel is much higher in industrialized, emerging economies and oil exporting countries, significantly large amounts of emissions are also generated by these countries. Being the epicenter of social and economic activities, cities are the major source of emissions and therefore global warming and climatic changes. According to the latest estimates (IEA, 2016), over 75% of global economic activities are concentrated in the urban areas. Consequently, cities are responsible for two third (67%) of energy consumption and over 70% of carbon emissions from the energy sector.

Data on city level CO2 emissions is very scarce. While majority of cities in developed countries are collecting and disseminating emission data, it is rarely practiced in the developing part of the world, including the majority of OIC member countries. Lately, many initiatives have been launched at the global scale to encourage and support city level administrations to develop technical capacities for sustainable urban planning and development.

Figure 6.2: Urbanization and Carbon Emissions



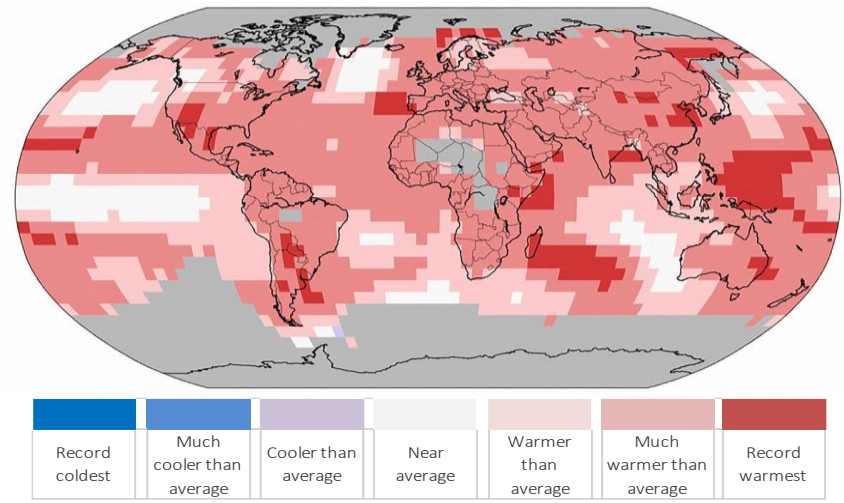
Source: WRI, CAIT Climate Data Explorer, World Resources Institute; UN-Habitat, *World Cities Report 2016: Urbanization and Development - Emerging Features,* Kenya: United Nations Human Settlements Programme.

Globally, urbanization is positively related with increases in carbon emissions. As shown in Figure 6.2, per capita CO2 emissions are very low in less urbanized countries than the more urbanized ones. In general, developing world, including majority of OIC countries is characterized by lower level of urbanization and carbon emissions whereas; developed countries are characterized by higher level of urbanization and emissions. Like elsewhere, per capita CO2 emissions are very high in the most urbanized high income and fuel exporting OIC member countries. It is worth mentioning that six OIC members are currently ranked among the most urbanized top-10 heavy carbon emitters in the world. Among these countries, Qatar is ranked at the top with per capita CO2 emissions of 45 tonnes followed by Kuwait (25.2), Bahrain (23.4), United Arab Emirates (23.3), Brunei (22.1) and Saudi Arabia (19.5).

Extreme Heat Events

Global surface temperature has increased by 0.6°C since the late 19th century (IPCC, 2014). The rate of warming has been 0.17 °C since 1976, which is comparatively larger than the rate of warming in previous decades. Anthropogenic activities related with transportation, agriculture, industry etc. remained the major contributors in GHG emissions and resulting global warming. Lately, year 2016 was the hottest year recorded ever with average global temperature of 0.94°C. Although 2017 was relatively cooler with 0.90°C, temperature remained above the average level across the world (Map 6.1). Some arid and sub-humid regions, however, were particularly affected due to high incidence of heatwaves and extreme heat events (IPCC, 2014). These events pose serious threats for the survival of human beings by disrupting the eco system, alleviating the health risks and damaging the infrastructure.

Map 6.1: Land and Ocean Temperature Percentiles (2017)

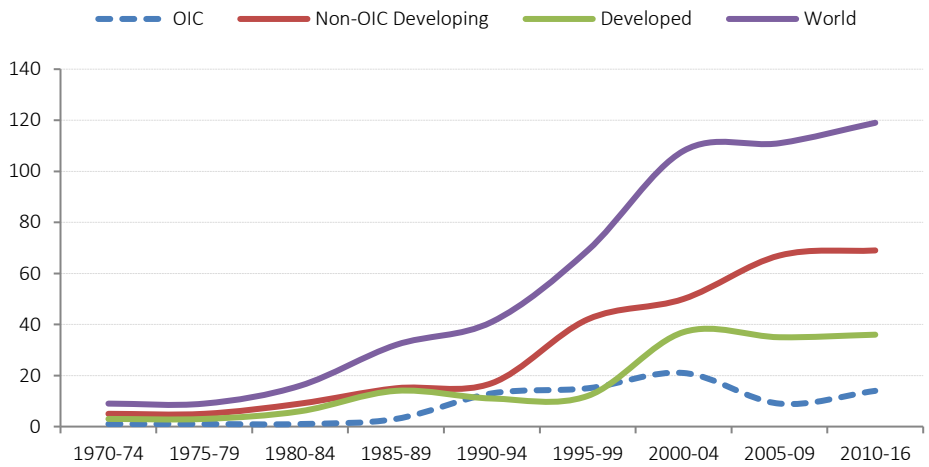


Source: NOAA, National Centers for Environmental Information, National Oceanic and Atmospheric Administration.

According to the latest estimates (EM-DAT database), over the last 4 decades, more than 500 extreme temperature events have been recorded globally. These anomalies have unleashed

death and destruction across the world, with over 100 people affected along with 62 million US$ worth of economic losses. During the same period, 15 OIC member countries have reported about 78 high temperature events, with around 4.5 million affected people. The number of extreme heat events per every five years at the world level has increased from nine incidents in 70s to a record high of 119 in 2010/16 (Figure 6.3). This increasing trend was mostly driven by the high level of GHG emissions from anthropogenic activities. The OIC countries have also experienced an increasing trend in the occurrence of high temperature evets during the last four decades from only one incident in 70s to 21 in 2000/04, before declining to 14 in 2010/16.

Figure 6.3: Extreme Temperature Events (1970-2016)



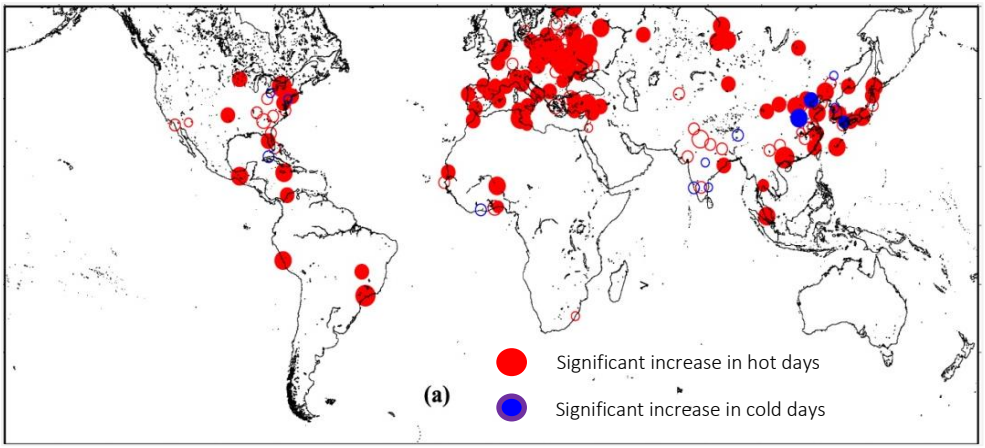
Source: EM-DAT, the Emergency Events Database.

Given the high concentration of people, economic activity and infrastructure, urban areas are particularly vulnerable to extremely high temperatures. Cities are particularly vulnerable due to heat island effect (Tan et al 2010) - a phenomenon of higher temperatures in urban areas than in surrounding rural areas. This phenomenon is associated with urbanization-related three factors (Taha, 1997), including, (1) increasing amount of dark surfaces such as asphalt and roofing material with low albedo and high admittance, (2) decreasing vegetation surfaces and open permeable surfaces such as gravel or soil that contribute to shading and evapotranspiration and (3) release of heat generated through human activity (such as cars, air condition, etc.). As these factors are not equally distributed within and across the cities, therefore extent of heat island effect varies among different areas and cities. Usually areas/cities with more built-up land and less green areas are comparatively more vulnerable.

A recent study (Mishra et al, 2015) covering 650 urban areas across the world reveals significant increase in incidence of extreme hot days during the period of 1973–2012. In fact, the largest number of high temperature events in cities was recorded during the most recent

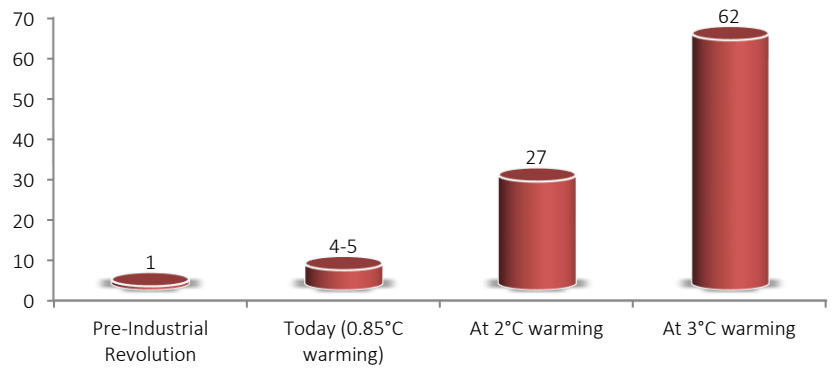
years of 2009, 2010, 2011 and 2012. As a whole, almost half (48%) of urban areas included in the study has recorded increase in hot days whereas; two-thirds of urban areas witnessed increase in hot nights. Urban areas located mostly in Europe, North Africa and West Africa has witnessed median increases of eight days in the frequency of extreme hot days and a median increase of ten hot nights. During this period, many urban areas spread across 15 OIC countries have also experienced increases in high temperature events (Map 6.2). Most of these member countries are located in Sub-Saharan Africa (including Mauritania, Senegal, Mali, Burkina Faso, Niger, Guinea, Togo, Benin and Nigeria) and North Africa (including Libya, Tunisia, Algeria and Morocco). Among others, some urban areas in Turkey, Syria and Jordan have also recorded increase in extreme heat events.

Map 6.2: Changes in Number of Extreme Hot days (1973–2012)



Source: V. Mishra et al. "Changes in Observed Climate Extremes in Global Urban Areas", *Environmental Research Letters*, 10 (2), 2018.

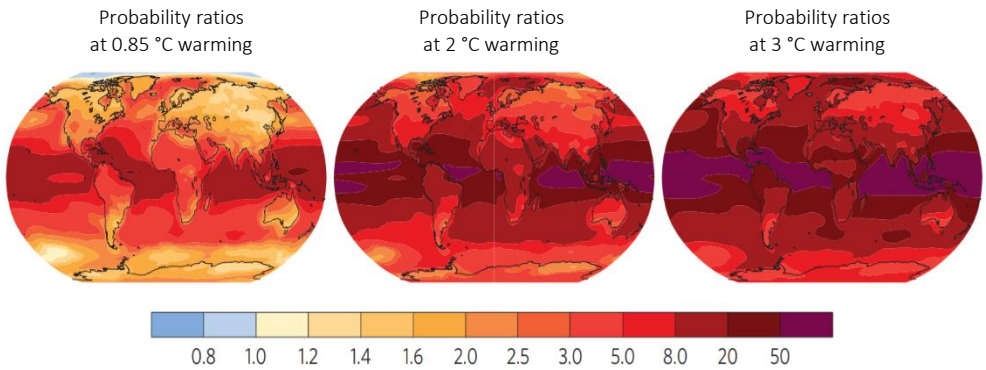
Figure 6.4: Expected Days of Extreme Heat Events in Every 1,000 Days



Source: E. M. Fischer and R. Knutti, "Anthropogenic Contribution to Global Occurrence of Heavy-Precipitation and High-Temperature Extremes", *Nature Climate Change*, 5, 2015.

Global warming and variations in climatic conditions lead to more frequent incidence of high temperature events, which used to occur rarely before. Findings of a study by Fischer and Knutti (2015) reveal that in the pre-industrial revolution era probability of extreme heat events was 1 day in every 1000 days (Figure 6.4). However, due to global warming, likelihood of such events is now 4-5 days for every 1000 days. This situation is expected to get worse as the warming increases further to higher levels in future. At 2 °C and 3 °C warming, probability of extreme heat events in every 1000 days is likely to be 27 days and 62 days, respectively.

Map 6.3: Change in Probability of Heat Extremes



Source: E. M. Fischer and R. Knutti, "Anthropogenic Contribution to Global Occurrence of Heavy-Precipitation and High-Temperature Extremes", *Nature Climate Change*, 5, 2015.
Notes: Multi-model mean probability of exceeding the pre-industrial 99th percentile of daily temperature relative to pre-industrial level. Probability ratios are shown for 30-year periods in which the global mean temperatures warmed 0.85 °C (present-day), 2 °C and 3 °C above pre-industrial conditions.

As mentioned earlier, future increase in warming will significantly increase the extreme hot events posing serious threats for human beings and ecosystem. Nevertheless, these negative effects of warming vary greatly across the world. As shown in Map 6.3, extreme heat events will be more intense in countries located in the tropics and sub-tropics regions, including many OIC member countries. If the global warming continue to increase, countries in these regions could experience 50 times more extremely hot days and 2.5 times more rainy ones by the end of this century. Given the fact that majority of OIC countries is located in regions characterized with low socio-economic development, increase in high temperature events will jeopardize the health and wellbeing of millions of people living especially in urban areas, due to their high sensitivity to heatwaves and droughts.

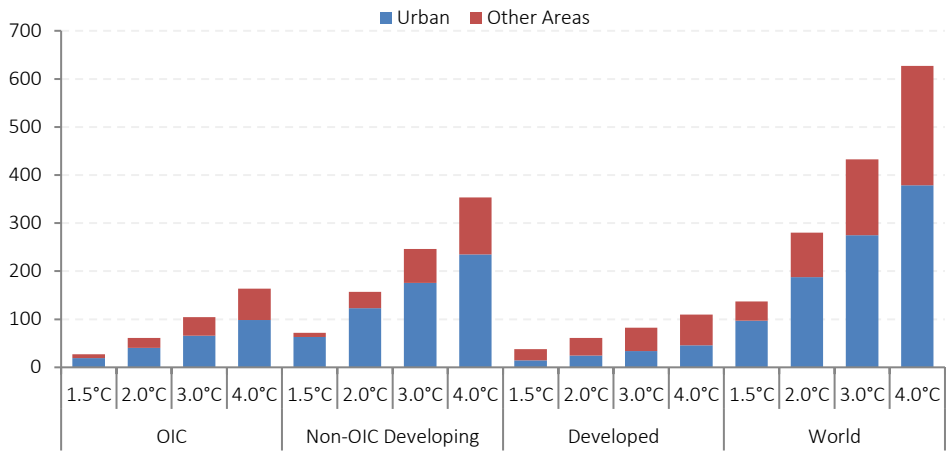
Sea Level Rise

Sea level rise is a dominant manifestation of global warming and climate change with serious negative consequences for the well-being and survival of humankind. According to the assessment of the Intergovernmental Panel on Climate Change (IPCC, 2007), global sea levels rose at an average rate of 1.8 millimeters a year from 1961 to 2003, with the fastest growth occurring between 1993 and 2003 (an average rate of 3.1 millimeters a year). The scientific evidence attributes this rapid sea level rise to the melting of ice sheets and glaciers and

expansion of seawater due to global warming. At the current rate of GHG emissions and global warming, it is estimated that sea level may rise 0.5 to 1.4 meters by the end of this century, which is very high compared to 59 centimeters rise estimated earlier by the IPCC (2014).

According to the latest estimates (Strauss and Levermann, 2015), in the worst case scenario of no emission cuts and global warming of 4 °C, sea level rise could affect about 620 million people living in the low laying coastal areas (based on 2010 population estimates). Coastal populations in developing countries are particularly vulnerable with over 500 million living on land threatened by the rising sea level. However, carbon emission cuts and 2 °C warming, as proposed under the Paris Agreement, would reduce the number of people threatened to 280 million. Most of this decline would occur in developing countries.

Figure 6.5: Sea Level Rise and Population on Threatened Land (millions)



Source: B. H. Strauss, S. Kulp, and A. Levermann, *Mapping Choices: Carbon, Climate, and Rising Seas, Our Global Legacy*, Climate Central Research Report, 2015.

In general, developing countries have more human exposure in all warming scenarios compared to the developed countries. It is worth mentioning that the situation reverses when we consider the economic exposure of countries to the rising sea level worldwide (Swiss Re, 2013). In line with the global situation, millions of people are threatened by the accelerated sea rise in OIC member countries. As shown in Figure 6.5, in a business as usual scenario, sea level rise could submerge land currently home to over 164 million people spread across 44 OIC member countries. For the 1.5 °C warming, OIC countries accounted for 20% of global populations living in threatened lands whereas; this ratio could increase up to 26% for the worst but possible scenario of 4 °C warming. At the country level, five members, namely, Bangladesh, Indonesia, Egypt, Nigeria and Malaysia are ranked among the top-20 most at-risk nations in the world.

Given the fact that many of the world's largest cities are located in coastal regions, sea level rise will be more catastrophic for people, properties and infrastructure in urban areas. As

shown in Figure 6.5, more than half of the global populations exposed to sea level rise are living in some 260 cities spread across the world. Among these cities, the situation is particularly worrisome in those that are located in developing countries with human exposure level as high as of 88% of population at a very-likely-to-happen warming level of 1.5 °C.

Table 6.1: OIC Cities with Highest Human Exposure to Sea Level Rise (millions)

City	Country	1.5 °C	2 °C	3 °C	4 °C
Dhaka*	Bangladesh	0.3	2.0	5.9	12.3
Jakarta*	Indonesia	2.7	5.0	7.2	9.5
Khulna	Bangladesh	0.8	2.6	4.6	7.6
Chittagong	Bangladesh	1.9	3.8	5.5	7.0
Barisal	Bangladesh	0.8	2.6	4.3	6.0
Surabaya	Indonesia	1.1	2.7	4.2	5.5
Lagos	Nigeria	1.4	2.3	3.0	3.7
Narayanganj	Bangladesh	0.1	0.6	1.9	3.5
Alexandria	Egypt	2.4	2.8	3.0	3.4
Comilla	Bangladesh	0.1	0.4	1.3	2.8
Tegal	Indonesia	0.6	1.2	1.9	2.7
Semarang	Indonesia	0.4	1.0	1.7	2.6
Tanta	Egypt	0.0	0.2	0.7	2.5
Dakar*	Senegal	0.3	0.7	1.1	1.7
Karachi	Pakistan	0.2	0.4	0.6	1.4
Ujungpandang	Indonesia	0.1	0.4	0.8	1.4
Abidjan	Cote d'Ivoire	0.4	0.8	1.1	1.4
Palembang	Indonesia	0.0	0.2	0.7	1.4
Mymensingh	Bangladesh	0.0	0.1	0.5	1.3
Cotonou	Benin	0.5	0.9	1.1	1.2

Source: B. H. Strauss, S. Kulp, and A. Levermann, *Mapping Choices: Carbon, Climate, and Rising Seas, Our Global Legacy*, Climate Central Research Report, 2015.

At the individual city level, human exposure to sea level rise varies greatly across the OIC countries. As shown in Table 6.1, Top-20 OIC cities with the highest number of population exposed to sea level rise account for around half of the OIC total in all warming scenarios. Coastal cities most at risk are located in Bangladesh (7) and Indonesia (6). The human exposure is highest in Dhaka at 4 °C warming scenario followed by Jakarta, Khulna and Chittagong. Same cities are also ranked among the top exposed cities but with variation in ranking for 3 °C warming. In case of 2 °C and 1.5 °C warming scenarios, however, populations living in coastal regions of Alexandria and Surabaya are relatively more exposed to the rising sea level.

Flooding of the cropland, increasing salinity of soil and contamination of freshwater resources will also pose serious threat to food security of millions of people living in megacities across the OIC countries. According to the findings of IPCC (2014), countries such as Bangladesh and Egypt where large portions of agricultural production are in low-lying coastal areas and small island nations like Maldives could see significant production loss from flooding and saline intrusion. An elevated sea level will also exacerbate the flood impacts of the large rivers, especially the Niger and Nile. Some of the most vulnerable regions are the Nile delta in Egypt, the Ganges-Brahmaputra delta in Bangladesh, Mahaka River region in Indonesia and the island of Maldives and Bahrain (World Bank 2013, AFED 2009).

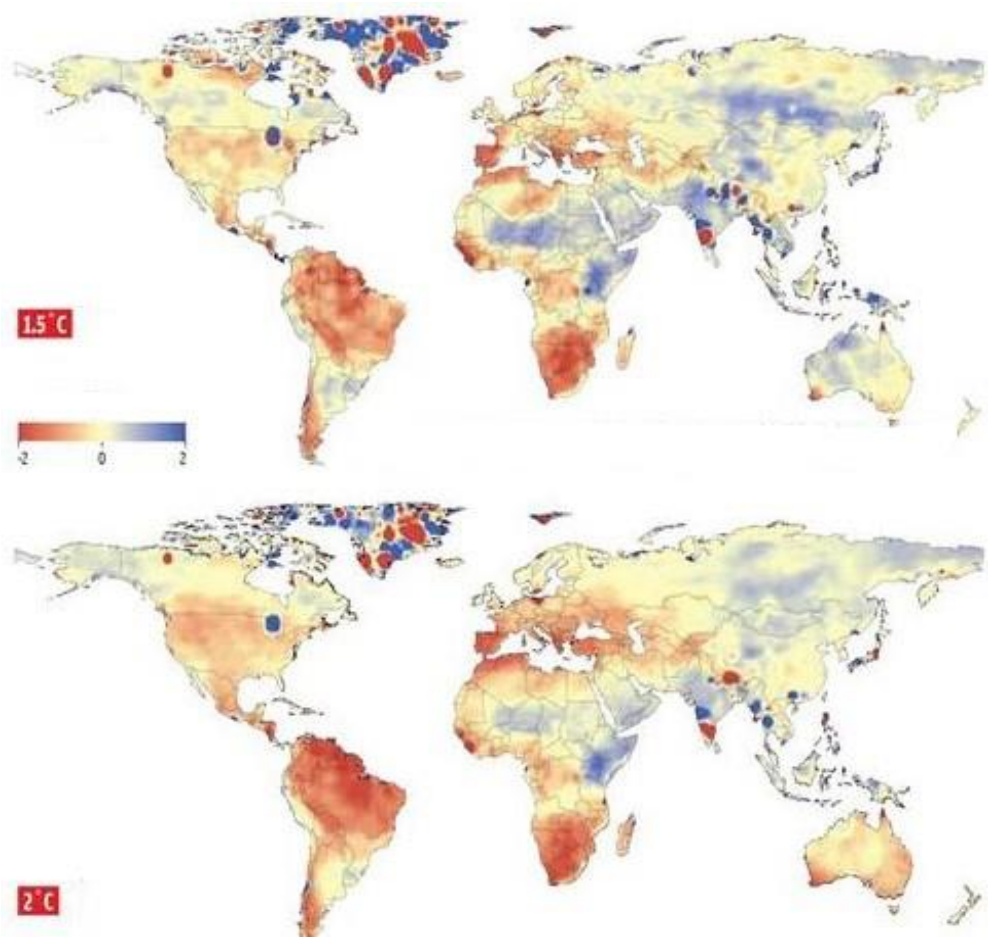
Given the fact that sea level rise depends on complex relationship between future carbon emissions and global warming; it is not easy and straightforward to estimate and predict the real scale of impacts associated with it. In the same vein, these and similar other estimates should be treated as indicative and must be read with caution. Having said that, the level of human exposure, however, does indicate towards more rigorous climate mitigation efforts to keep the global warming in check. It also underlines the importance of adaptation measures to make cities more resilient and sustainable across the OIC member countries and elsewhere.

Draughts and Water Scarcity

The occurrence of prolonged periods of dry weather conditions is on rise across the world mainly due to rising temperatures, rainfall changes and low level of precipitation. The latest 5th Assessment Report of IPCC (2014) predicts decline in soil moisture globally, with a greater risk of drought especially in already dry regions including Southern Africa, Sahel region, South Asia and the Mediterranean. The report also underlines the gravity of situation by predicting an increase in drought-affected area from current level of 1% of total land to as much as 30% by 2100.

A latest study by Liu et al (2018) on risk-based assessment of changes in global drought from additional 1.5 and 2 °C warming conditions predicts increase in drought durations from 2.9 to 3.2 months. As a result, the human impact of extreme drought conditions especially in urban areas is expected to worsen. Based on the Palmer Drought Severity Index, the authors also suggest that around 357 million additional urban dwellers will be by affected by the extreme droughts at 1.5°C warming whereas; this number will climb up as high as 696 million for 2°C warming (Map 6.4). The high frequency and intensity of droughts will also put water systems at risk, as the rivers, lakes and aquifers will be either drying up or becoming too polluted to use. The situation will be particularly bad in already water scarce dry regions like Southern Africa and Mediterranean. As a result, as many as one billion people in dry regions may face increasing water scarcity (IPCC, 2014).

Map 6.4: Drought-Affected Urban Populations in 1.5 and 2°C Warmer World

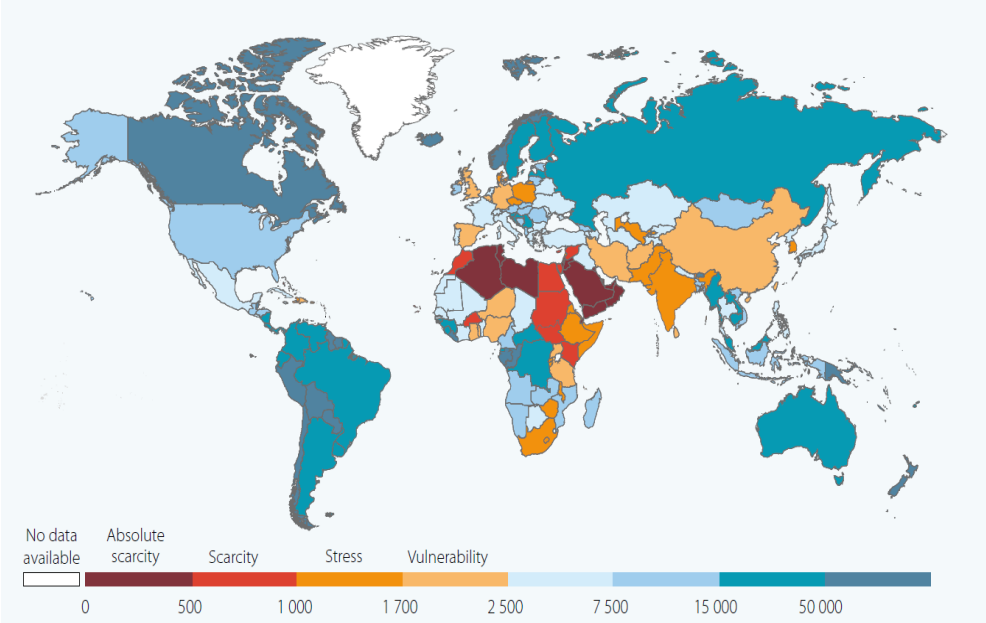


Source: Liu, W. et al. "Global Drought and Severe Drought-Affected Populations in 1.5 and 2°C Warmer Worlds", *Earth System Dynamics*, 9, 2018.
Notes: Palmer Drought Severity Index (PDSI) uses readily available temperature and precipitation data to estimate relative dryness for predicting long-term droughts.

Majority of OIC member countries are located in arid and semi-arid regions characterized with sporadic rainfalls, low precipitation and limited water resource availability. Given the existing bleak water security situation (SESRIC, 2016a), most of the OIC member countries will be hard hit by predicted increase in extreme drought conditions and alleviated level of water scarcity in the coming decades. As Map 6.5 shows, almost half of OIC countries are already facing some level of water scarcity. Among these members, absolute water scarcity is observed in 14 countries, namely, Kuwait, United Arab Emirates, Qatar, Saudi Arabia, Yemen, Maldives, Bahrain, Libya, Jordan, Palestine, Algeria, Djibouti, Oman and Tunisia. On the other hand, chronic water shortages are observed in six OIC countries, namely, Egypt, Syria, Burkina Faso,

Morocco, Lebanon and Sudan. Among others, six OIC countries have been experiencing regular water stress, namely, Pakistan, Somalia, Uganda, Comoros, Nigeria and Uzbekistan.

Map 6.5: Total Renewable Water Resources Per Capita (2013)



Source: WWAP, The United Nations World Water Development Report 2015: Water for a Sustainable World, Paris: United Nations World Water Assessment Programme, UNESCO, 2015.

During the last century, global water use has grown at more than twice the rate of population increase with many cities chronically short of water (FAO, 2007). Given the increasing water demand vis-à-vis shortages, urban areas are particularly vulnerable to the droughts. Currently, around 400 million city dwellers are facing water shortage whereas; one fourth of cities around the world is already water-stressed and is highly exposed to the drought-induced water shortages in future (IPCC, 2014).

A large-scale global study (McDonald et al. 2014) on water availability in 265 large cities that are spread across 112 countries reveals that 102 cities remained water stressed. More than two-third (67%) of these water stressed cities are located in developing countries. Globally, around a quarter of population in large cities, or 381 ± 55 million people, have water supplies that are under stress. It is interesting to highlight that around 78% of urban dwellers in large cities depends on surface water, 20% on ground water and 2% on desalination.

Analysis in mentioned study also covers 49 large cities located across 35 OIC member countries. In total, 19 OIC cities including 10 capital cities are facing water stress. Majority (14) of these cities are facing surface water stress. More than half (8 cities) with surface water stress are located in MENA region, including, Agadir, Alexandria, Algiers, Baghdad, Casablanca, Mosul, Shiraz and Tehran whereas; three cities are from Europe and Central Asia, including,

Baku, Istanbul and Tashkent. Three South Asian cities are also part of this list, namely, Karachi, Quetta and Rajshahi. On the other hand, ground water aquafers are under stress in five OIC cities, namely, Bishkek, Kabul, Riyadh, Sana'a and Tripoli.

Table 6.2: Water Stress in Large OIC Cities

City	Country	Surface Water	Ground Water
Agadir	Morocco	X	.-.
Alexandria	Egypt	X	.-.
Algiers*	Algeria	X	.-.
Baghdad*	Iraq	X	.-.
Baku*	Azerbaijan	X	.-.
Bishkek*	Kyrgyzstan	.-.	X
Casablanca	Morocco	X	.-.
Istanbul	Turkey	X	
Kabul*	Afghanistan	.-.	X
Karachi	Pakistan	X	
Mosul	Iraq	X	.-.
Quetta	Pakistan	X	
Rajshahi	Bangladesh	X	.-.
Riyadh*	Saudi Arabia	.-.	X
Sana'a'*	Yemen	.-.	X
Shiraz	Iran	X	.-.
Tripoli*	Libya	.-.	X
Tashkent*	Uzbekistan	X	.-.
Tehran*	Iran	X	.-.

Source: R. McDonald et al., "Water on an Urban Planet: Urbanization and the Reach of Urban Water Infrastructure", *Global Environmental Change*, Vol. 27, July 2014.
Notes: X = Stressed; .-. = Not stressed; * = Capital City.

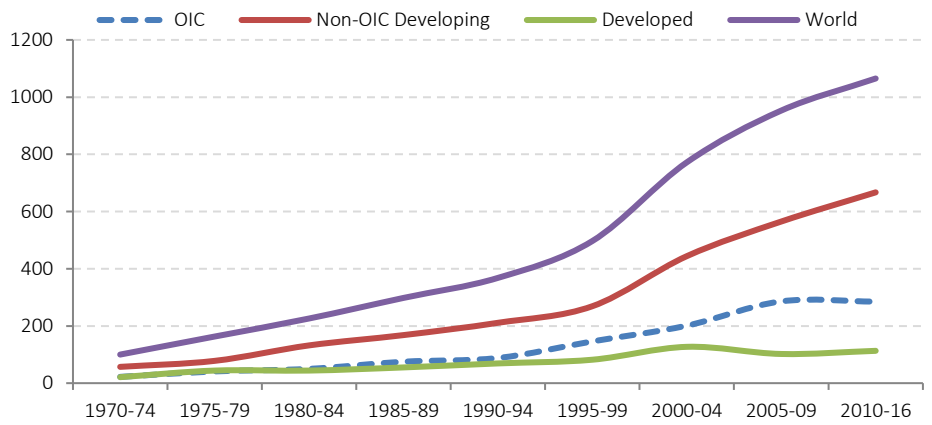
Flooding

Urban flooding is the most prevalent environmental disaster with serious negative consequences for society, economy and infrastructure across the world. The high vulnerability of urban areas is due to the fact that many of them are situated in the flood plains and/or river deltas (Swiss Re, 2013). In addition, a significant proportion of land in urban areas is paved with high concentration of buildings and other concrete-based structures that prevent effective absorption of rainfall into soil. Thus alleviating the chances of flash floods in case of heavy rain falls.

Cities across the world are battered with flood events caused by heavy rainfalls, riverbank overflows and storm surges. In fact, flooding is the most common natural disaster with very high losses of life and properties. According to the latest estimates (EM-DAT, 2018), floods

accounted for more than 40% of all recorded disaster events in the past 50 years. Globally, there has been an upward trend in flood events increasing from 100 events in 1970-74 to 1065 during 2010-16. Since 1970, over 4400 flood events were recorded across the world. In general, developing countries remained more prone to floods with over 3700-recorded events, accounting for about 84% of world total. In line with the global trends, OIC member countries also witnessed an increase in flood events from 44 in 1970-74 to 2185 events in 2010-16.

Figure 6.6: Flood Events (1970-2016)



Source: EM-DAT, the Emergency Events Database.

Globally, around 21 million people could be affected by floods annually (World Resource Centre, 2015). Almost 80% of these people are residing in 15 countries including seven OIC member countries. Among these countries, Bangladesh is ranked first with 3.5 million people exposed to floods annually followed by Pakistan (0.71 million), Indonesia (0.64 million), Egypt (0.46 million), Afghanistan (0.33 million), Nigeria (0.29 million) and Iraq (0.19 million).

This increasing trend in flood events is largely associated with rapid and uncontrolled urbanization and extreme weather events caused by climate change (UN Habitat, 2016; IPCC, 2012). Given the bleak chances for limiting the human-caused global warming to well below 2 degrees Celsius, the flood risk is expected to increase significantly in many parts of the world.

According to the findings of a recent study (Willner et al., 2018), river flood risk will be very high by the 2040, if no measures are taken to enhance dykes, boost building standards, relocate settlements and manage rivers. The situation will be particularly alarming for developing regions like Asia and Africa, which are characterized with very low adaptive capacities, limited financial resources and poor urban planning. In case of no action to boost disaster risk management capacities, by 2040, number of people affected by floods will increase substantially across the developing world, including many OIC countries. Countries in Asian region will be the hardest hit as the number of people affected at the regional level will

likely increase from 70 to 156 million. Meanwhile, number of people affected by river floods will climb up from 25 to 34 million in Africa and from 6 to 12 million in South America. At the metropolitan level, river flood risk is the highest in Jakarta and Cairo, where number of potentially affected people could increase as high as 10 million and 5.5 million, respectively (Swiss Re, 2013).

Majority of OIC countries are generally characterized by low natural disaster protection and adaptive capacities (SESRIC, 2016b). According to the findings of Willner et al. (2018), many OIC member countries located in Africa and Asia need to boost their adaptive capacities to mitigate and manage the alleviated flood risks. In Africa, stakes are high in countries located around Niger River basin and Nile. Nigeria will be the hardest hit with number of affected people increasing from 4 million to 6 million followed by Mali (1.1 to 1.5 million), Chad (0.7 to 1.4 million) and Sudan (0.7 to 1.3 million). On the other hand, Egypt shows the significant increase in people under high-end flood risk from 0.2 to 3 million. Meanwhile, in Asia, one of the most populous OIC countries, Pakistan, will be the worst affected due to historically high flood exposure and low adaptive capacities. Without any additional protection, the study predicts, number of affected people in Pakistan is likely to increase from 6 to 11 million in next 25 years.

Many experts are of the opinion (IPCC, 2014) that humanity has already emitted enough GHG gases in the atmosphere that climatic conditions will worsen in coming 2-3 decades in spite of all mitigation measures. Therefore, climate change will unleash more unpredictable heavy rains and extreme storm surges, exposing millions of people living in urban areas to flooding across the developing and developed countries. This state of affairs, therefore, necessitates more aggressive measures and sound policies to manage the alleviated flood risk through integrated flood disaster management. Particularly in developing world, including many OIC countries, there is a dire need to moving from a traditional reactive flood management (response and recovery) to a proactive response by building efficient systems for flood forecasting and warning, flood hazard and risk management, public participation and institutional reforms.

6.3 Disaster Vulnerability and Preparedness

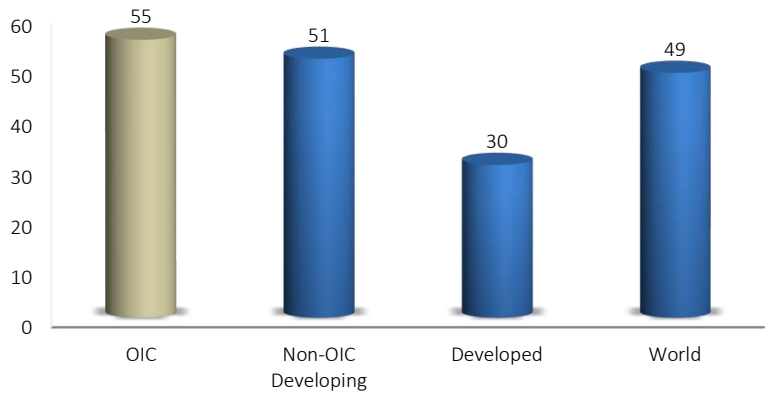
As discussed in the previous section, climate change will further exacerbate the exposure and vulnerability of cities to extreme weather events. Though, high level of uncertainty persist regarding the true extent, frequency and intensity of environmental risks and hazards in a particularly region, country or city, almost all environmental models predict an upward trends in natural disasters and associated social and economic losses in future. With the existing natural disaster exposure and risks in urban areas, further intensification of climate change induced extreme weather events underline the critical need and importance of developing efficient and effective mechanisms to enhance adaptive capacities and urban resilience.

Vulnerability

Majority of countries in developing regions, including most of OIC members, are not only characterized with high vulnerability to climate-induced disasters and extreme events but also least prepared with minimal disaster management capacities. As a result, lack of coping and adaptation capacities worsen the prospects for an effective and efficient response to and recovery from natural disasters and weather extremes.

Vulnerability encompasses conditions determined by physical, social, economic and environmental factors or processes that increase the susceptibility of a community to the impact of hazards. In other words, vulnerability amplifies the tolls taken by natural hazards and leads them toward becoming disasters. According to the latest available data (UNU-EHS), vulnerability to the impacts of natural hazards and climate change is highest in OIC member countries. As shown in Figure 6.7, vulnerability rate for OIC countries stands at 55, which is higher than the other country groups and world average.

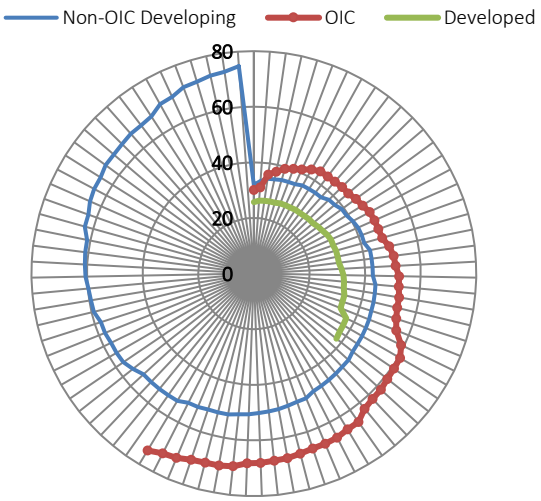
Figure 6.7: Vulnerability to Natural Disasters and Climate Change (2016)



Source: UNU-EHS, United Nations University - Institute for Environment and Human Security.

At the individual country level, vulnerability to natural disasters varies from 30 to 74. As shown in Figure 6.8, majority of OIC member countries are most vulnerable to natural disasters with vulnerability rate higher than 50. Among these highly vulnerable countries, Chad is ranked first followed by Afghanistan, Niger, Guinea, Mozambique and Guinea-Bissau, all with scores over 70. On the other hand, Qatar is ranked as the least vulnerable country among the OIC members with the score of 30, which is equal to the average of developed countries. Among others United Arab Emirates, Kuwait, Saudi Arabia and Brunei recorded vulnerability rate below 40.

Figure 6.8: Disaster Vulnerability at Country Level (2016)



Source: UNU-EHS, United Nations University - Institute for Environment and Human Security.

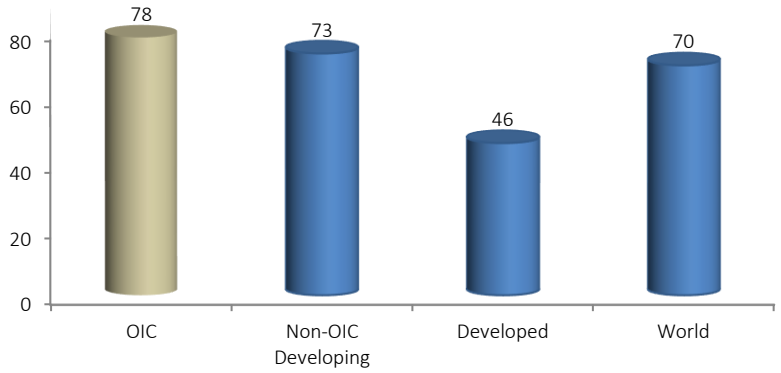
Coping Capacities

Coping capacities refer to ability of people, organizations and systems, using available skills, resources and opportunities, to address, manage and overcome adverse conditions. The quality of a country's capacities and conditions for disaster management appears to have a significant influence on the underlying drivers of risk. When similar numbers of people are affected by hazards of similar severity, wealthier and poorer countries generally experience radically different losses and impacts. Whereas relative wealth is a key determinant, other factors such as urban planning and infrastructure development also play roles in the social construction of risk.

Climatic shifts are directly related to changes in natural ecosystem, disease patterns, and degradation of natural resources, deforestation and extreme events, which have a significant influences the vulnerability patterns. According to SESRIC (2014), a significant majority of the OIC land area, and therefore population, is exposed to poorly managed environmental conditions and the progress over the last decade has been modest.

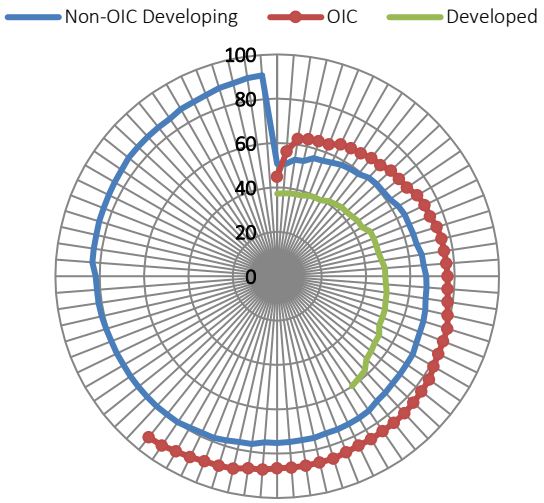
According to the latest estimates (Figure 6.9), OIC countries are characterized with comparatively low coping capacities. The lack of coping capacities index score reveals that OIC countries, as a group, severely lack coping capacities with a score of 78.1, which is higher than the other country groups and the global average.

Figure 6.9: Lack of Coping Capacities (2016)



Source: UNU-EHS, United Nations University - Institute for Environment and Human Security.

Figure 6.10: Lack of Coping Capacities at Country Level (2016)



Source: UNU-EHS, United Nations University - Institute for Environment and Human Security.

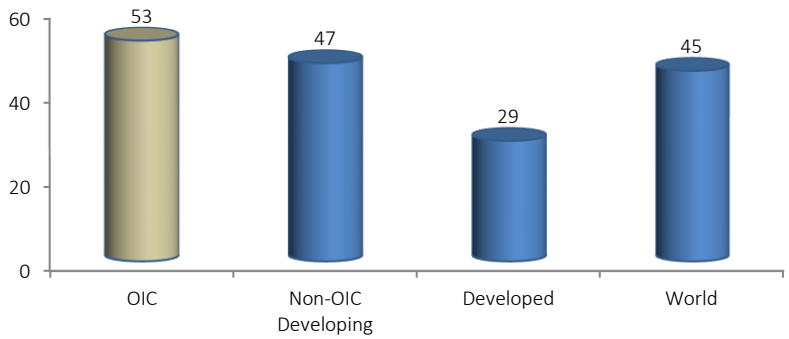
At the individual country level, coping capacities remained very low across the OIC member countries, with score above 60 for 51 members. In general, there is a huge disparity among the OIC countries regarding lack of coping capacities, ranging from 45 to 93 (Figure 6.10). Among the OIC members, Sudan, Afghanistan, Chad and Yemen had the highest lack of coping capacity with scores over 90. On the opposite side of the scale, Qatar is the most equipped OIC country with the lowest lack of coping capacity score of 45. In general (SESRIC, 2016b), most OIC countries still rely on the traditional disaster management systems based on reactive approach of post-disaster response and relief, and lack the capacities for effective risk mitigation and preparedness for disasters.

Adaptive Capacities

Adaptation is a key building block of global response to climate change and natural disasters. It involves many dimensions, including capacity building, disaster risk management, research and assessment, and economic diversification. Adaptation is defined as a long-term strategy that not only aims to promote change and transformation but also encompasses measures and strategies dealing with and attempting to address the negative impacts of natural hazards and climate change in the future (UNISDR, 2012). Adaptation is particularly important for the developing countries especially due to their high vulnerability to the climate change and natural disasters.

Figure 6.11 provides the distribution of different country groups and OIC, based on the extent of lacking adaptive capacities. The latest data reveal that OIC countries exhibit a pessimistic outlook in this domain with a score of 52.6, which is higher than the other country groups and world average.

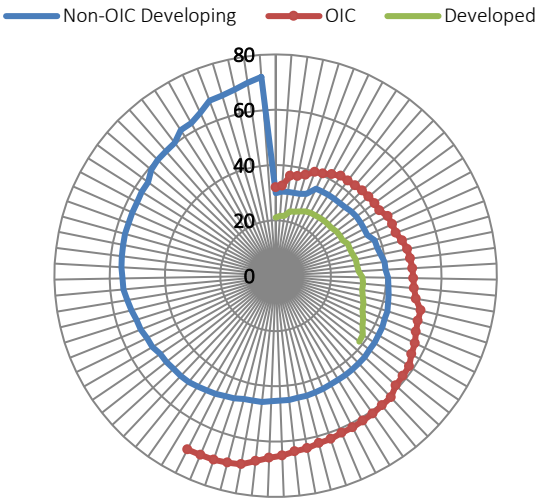
Figure 6.11: Lack of Adaptive Capacities (2016)



Source: UNU-EHS, United Nations University - Institute for Environment and Human Security.

Figure 6.12 shows OIC countries with lowest and highest lack of adaptive capacities. According to the data, OIC countries from the Middle East, including United Arab Emirates, Saudi Arabia, Kuwait and Qatar were the countries with the lowest lack of adaptive capacity in 2016. On the opposite side of the scale, Mali, Chad, Niger, Guinea and Afghanistan recorded the most pessimistic results for adaptive capacity.

Figure 6.12: Lack of Adaptive Capacities at Country Level (2016)



Source: UNU-EHS, United Nations University - Institute for Environment and Human Security.

6.4 Strengthening Urban Resilience in OIC Cities

Concisely, urban resilience refers to a city's ability to respond to and absorb the effects of hazardous events in a timely and efficient manner. In this regard, role of municipalities and local governments is pivotal to develop sustainable urban plans, make appropriate legislative and regulatory policies and secure financial means to enhance urban infrastructure and capacities. Furthermore, local governments must develop close collaboration and cooperation with all stakeholders, including, national governments, non-governmental organizations, and international development organizations for developing an integrated multi-sectoral approach to climate change. Although local governments are at the forefront of disaster response and recovery, most of them lack financial and/or technical capacities and/or authority to undertake disaster risk reduction and resilience building actions (UNISDER, 2015).

Among the OIC member countries, so far, only 34 countries have reported on the development of national urban policies. Most of these policies do not pay significant attention to the issues related with environmental sustainability and climate resilience. As shown in Table 6.3, urban development plans in only 5 member countries have extensive focus on environmental sustainability whereas; climate resilience is main focus in case of only two OIC member countries. While only four member countries have moderate level of focus on environmental sustainability in urban areas, 11 member countries have low focus at this dimension. This number climbs up to 14 in case of Climate Resilience theme.

Table 6.3: National Policies and Urban Resilience

	Environmental Sustainability	Climate Resilience
Extensive	Bahrain, Bangladesh, Malaysia, Qatar, Turkey	Maldives, Morocco
Moderate	Algeria, Indonesia, Kyrgyzstan, Morocco	Malaysia, Qatar, Turkey, Uganda
Low	Brunei, Comoros, Cote d'Ivoir, Djibouti, Mali, Maldives, Mauritania, Nigeria, Senegal, Togo, Uganda	Bahrain, Bangladesh, Brunei, Comoros, Cote d'Ivoir, Djibouti, Indonesia, Kyrgyzstan, Mali, Mauritania, Nigeria, Senegal, Somalia, Togo
Insufficient Information	Albania, Chad, Libya, Oman, Somalia, UAE	Albania, Algeria, Chad, Libya, Oman, UAE

Source: UN Habitat and OECD, *Global State of National Urban Policy*, Nairobi, United Nations Human Settlements Programme, 2018.

Furthermore, latest data on the implementation of Sendai Framework for Disaster Risk Reduction 2015-2030 reveals that as of 2015 only 23 OIC member countries have adopted and implemented national disaster risk reduction strategies in line with this Framework. On the other hand, 11 member countries have reported no policy development in line with the Sendai Framework whereas; there is no sufficient information available for the rest of member countries.

This state of affairs necessitates more leadership at both national and local level to mainstream the disaster management and climate resilience into every aspect of urban development, from land use planning to transport and housing sector. In fact, climate-change sensitive planning will lead to cities that are more resilient and successful in ensuring access to civic amenities while enhancing safety and well-being of their inhabitants. Several global initiatives like Sendai Framework for Disaster Risk Reduction, 2030 Agenda for Sustainable Development, Paris Agreement on Climate Change, New Urban Agenda and Addis Ababa Action Agenda provide opportunities and resources to enhance urban resilience by adopting sustainable urban development practices.

Lately, United Nations International Strategy for Disaster Reduction (UNISDER) has launched a global campaign "My city is getting ready!" in May 2010 to promote actions for Making Cities Resilient. According to this campaign, there are ten essential actions for building and enhancing the city resilience. Including:

1) Put in place the organization and coordination needed to promote the understanding and reduction of disaster risk, based on participation of citizens groups and civil society. Build local alliances. Ensure that all departments understand their role in disaster risk reduction and preparedness.
2) Assign a budget for disaster risk reduction and provide incentives for homeowners, low-income families, communities, businesses and the public sector to invest in reducing the risks they face.
3) Maintain up-to-date data on hazards and vulnerabilities. Prepare risk assessments, to be used as the basis for urban development plans and decisions, and ensure that this information and the plans for your city's resilience are made readily available to the public and are fully discussed with them.
4) Invest in and maintain critical infrastructure that reduces risk, such as flood drainage, adjusted where needed to cope with climate change.
5) Assess the safety of all schools and health facilities and upgrade them, as necessary.
6) Apply and enforce realistic risk-compliant building regulations and land-use planning principles. Identify safe land for low-income citizens and upgrade informal settlements, wherever feasible.
7) Ensure that education programmes and training on disaster risk reduction are in place in schools and local communities.
8) Protect ecosystems and natural buffers to mitigate the impact of floods, storm surges and other hazards to which your city may be vulnerable. Adapt to climate change by building on good risk reduction practices.
9) Install early warning systems and emergency management capacities in your city and hold regular public preparedness drills.
10) After any disaster, ensure that the needs of the affected populations are placed at the centre of reconstruction, with support for those populations and their community organizations in designing and helping to implement responses, including rebuilding homes and livelihoods.

Environmental conservation, climate change adaptation and disaster mitigation are closely associated. Global studies indicate that more than 80% of the natural disasters are hydro-meteorological; e.g. floods, droughts, desertification, cyclones, storms etc. Therefore, environmental degradation and climate change intensify the frequency and severity of hydro-meteorological hazards. Given the fact that climate change is expected to intensify disaster risks significantly in urban areas across the OIC member countries, there is serious need for adopting prudent environmental management practices to reduce disaster risks and the adverse effects of climate change. Environmental management as a strategy for disaster mitigation and climate change adaptation would revolve around following key elements:

sustainable water resources management, sustainable land-use management, and integrated coastal zone management (SESRIC, 2014).

Urban disaster risk reduction also requires investment in infrastructure upgrades, clean energy and slum upgrading. This requires huge financial resources. According to some estimates (CCFLA, 2015), globally there is a financing gap of approximately $4-5 trillion per year for sustainable and resilient infrastructure. In fact, around a $50 trillion is needed over the next 15 years to build climate friendly green infrastructure in urban areas globally. In 2014, urban climate finance accounted for $19 billion. Almost 80% of it was directed to transport, energy, and water and waste. Obviously, there is a huge gap between demand and supply. This situation is particularly bad for cities from developing countries, including most of OIC members, since these cities are highly exposed to the natural disasters and climate change induced extreme events, and are in dire need of financial resources for enhancing their coping and adaptive capacities.

Although, private sector could play a vital role to bridge this gap but only 20% of largest 500 cities in the world are creditworthy (World Bank: City Creditworthiness Initiative). As a result, mostly cities do not have adequate access to affordable financing for investing on urban infrastructure development. According to the Cities Climate Finance Alliance (CCFLA), this state of affairs emanates from the following constraints: 1. Uncertainty over regulatory and tax policies that affect low emission, climate-resilient infrastructure; 2. Difficulty in incorporating climate goals into urban infrastructure planning; 3. Lack of city expertise in developing low-emission, climate-resilient infrastructure projects that can attract financing; 4. Insufficient city control over infrastructure planning and complex stakeholder coordination; 5. High transaction costs; and 6. Lack of proven funding models at the city level. Therefore, it is critical that city governments in collaboration with the national governments and international development institutions should develop their creditworthiness.

In this regard, World Bank's City Creditworthiness Initiative could be instrumental by helping city governments:

- Achieve higher creditworthiness by strengthening financial performance;
- Develop an enabling legal and regulatory, institutional and policy framework for responsible sub-national borrowing through reforms at the national level;
- Improve the "demand" side of financing by developing sound, climate-smart projects that foster green growth;
- Improve the "supply" side of financing by engaging with private sector investors.

CHAPTER SEVEN

Urban Governance and Legislation

Together with a substantial change in global urbanization levels, the relationship between cities and development became more and more attractive worldwide, inviting governments and international organizations to put sustainable urbanization targets at the heart of national and international development efforts. In previous few years, governments negotiated and adopted not only SDGs and the New Urban Agenda, but also other landmark agreements such as the Paris Agreement on climate change and the Brasilia Declaration on road safety. All of them clearly require city level solutions to achieve desired outcomes, what calls for greater connection and coordination between national commitments and local actions.

Governments often act to meet demand for something or find the solutions to existing problems. Such behaviour generally involves relatively short-term and reactive regulatory actions (Forman, 2008). However, sustainable urbanization calls for long-term thinking and proactive approaches. In this context, an appropriate regulatory and institutional framework that ensure a coherence of sectoral and urban policies, as well as long-term and proactive actions is an important tool that enables governments to achieve desired urban outcomes.

7.1 National Urban Policies

Work on cities is often isolated among local authorities and urban planners, which are in many cases disconnected from national development plans or priorities of ministries of finance. In such situation, it is difficult to benefit from the greatest developmental potentials of urbanization. Sustainable urban development needs to be led by the national governments, working closely with subnational and local authorities, as well as civil society and other relevant stakeholders, in a transparent and accountable manner. The first thing to be done in this direction is putting in place a vision for urban future of a country that will guide the growth and management of cities. To make this happen, countries needs to introduce their National Urban Policies (NUPs) - a development tool for empowerment of cities and implementation of city-related aspects of global agreements. Part of the function of an NUP is to establish lasting commitment to build more integrated and inclusive cities (UN Habitat, 2016a). Subnational governments, civil society and the private sector should also be involved in the design of NUPs.

In recent years, major impetus to developing of NUPs came from the World Bank, UN SDGs, UN Habitat and the OECD. The NUPs are recognized as necessary instrument for better alignment of national activities with global priorities, and for a coordinated approach and clear policy directions in relation to the future growth of cities.

According to UN Habitat, by 2015 only around one-third of world countries have adopted explicit laws governing urban development despite growing pressure for governments to embed cities into national strategies. This indicates that national governments still do not fully understand their role in urbanization. In some cases, particularly in countries with significant

rural population, such as in Africa, policies that foster urbanization fail to find enough support because urbanization is not considered a priority and opportunity for national development.

The UN Habitat adopted definition of NUPs as 'a coherent set of decision derived through a deliberate government-led process of coordinating and rallying various actors for a common vision and goal that will promote more transformative, productive, inclusive and resilient urban development for the long term' (UN Habitat, 2016a).

Despite such precise definition of NUPs, because each city has a unique set of challenges, there is no universal template for a national urban policy. However, there is a common understanding around some basic tenets, including addressing urban poverty, promoting equitable opportunity, improving the connectivity among cities, promoting urban-rural linkages etc. (UN Habitat, 2016b).

Having in mind issues of common international concern, through a NUP process, a national government has to identify its own domestic priorities that best suit their situation, as well as set up framework that provide cities with the capacity and resources to achieve the country's socioeconomic and environmental goals. The structure of this framework should contain clear instructions on responsibilities of relevant institutions, their powers and resources, and on monitoring and enforcement mechanisms that are necessary for ensuring the progress in implementation of a NUP.

Five major phases of a NUP policy cycle identified by UN Habitat are feasibility, diagnostic, formulation, implementation, and monitoring and evolution (UN Habitat 2016a: 10). 'Feasibility' refers to initial stage important for building the political and social will to develop a NUP. 'Diagnostic' is the second stage that refers to the moment when the country is conducting the preliminary analysis to create a NUP, in broad consultation with academics, urban-focused NGOs and other stakeholders. 'Formulation' stage is drafting of the policy, while 'implementation' indicates the phase of putting the policy into action. The final stage, 'monitoring and evaluation' is the moment when outcomes of the policy are being analysed and evaluated, thus enabling for improvement of programs and policies over the long-term.

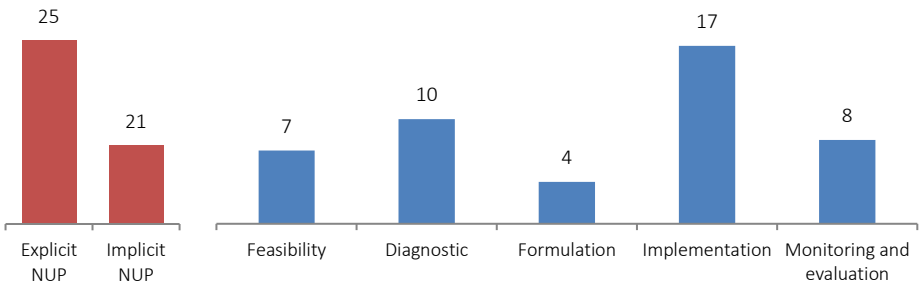
A review of the status of NUPs in the 46 OIC countries reveals that by the end of 2017 all of them were either implementing an explicit NUP or were undertaking implicit or partial NUP (Table 7.1). 25 out of them (54%) had an explicit NUP, of which four were still in feasibility (Afghanistan, Iraq, Guinea and Mozambique), six in diagnostic (Burkina Faso, Egypt, Jordan, Lebanon, Sudan and Tunisia) and four in the formulation phases (Chad, Gambia, Libya and Uganda). Within implementation phase - most common phase for given sample of OIC countries (37%), six had an explicit NUP (Algeria, Bangladesh, Indonesia, Iran, Morocco and Somalia), while eleven had implicit or partial elements of national urban policies. In 2017, only eight OIC countries have reached the monitoring and evaluation phase, of which five have an explicit NUP (Cameroon, Malaysia, Mali, Nigeria and Turkey) (Figure 7.1).

Table 7.1: National Urban Policies by Phase of Development (2017)

	Explicit NUP	Implicit or Partial NUP
Feasibility	Afghanistan, Iraq, Guinea, Mozambique	Kuwait, Turkmenistan, Yemen
Diagnostic	Burkina Faso, Egypt, Jordan, Lebanon, Sudan, Tunisia	Gabon, Pakistan, Saudi Arabia, Uzbekistan
Formulation	Chad, Gambia, Libya, Uganda	
Implementation	Algeria, Bangladesh, Indonesia, Iran, Morocco, Somalia	Albania, Brunei, Djibouti, Comoros, Kyrgyzstan, Maldives, Mauritania, Qatar, Senegal, Togo, United Arab Emirates
Monitoring and Evaluation	Cameroon, Malaysia, Mali, Nigeria, Turkey	Bahrain, Cote d'Ivoire, Oman

Source: UN Habitat and OECD, *Global State of National Urban Policy*, Nairobi, United Nations Human Settlements Programme, Nairobi, 2018.
Explicit NUP - where a policy has a title of 'National Urban Policy' or variant such as 'National Urbanization Policy', 'National Urban Strategy' or National Urban Development Strategy'.
Implicit or Partial NUP - where a policy has many of the elements of a NUP but is not yet brought together as a formal NUP.

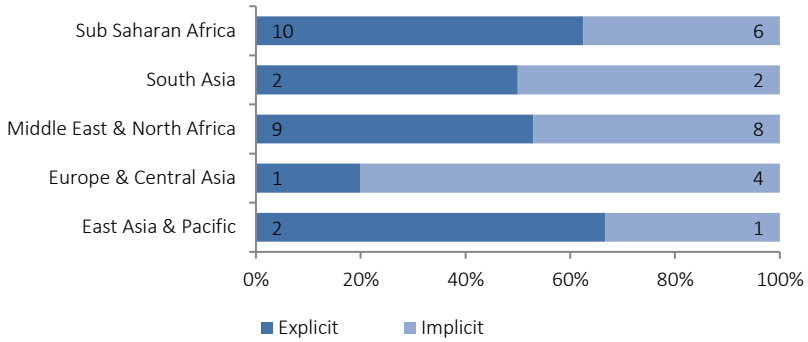
Figure 7.1: Form and Phase of NUPs in OIC Countries (2017)



Source: UN Habitat and OECD, *Global State of National Urban Policy*, Nairobi, United Nations Human Settlements Programme, Nairobi, 2018.
Notes: OIC N = 48.

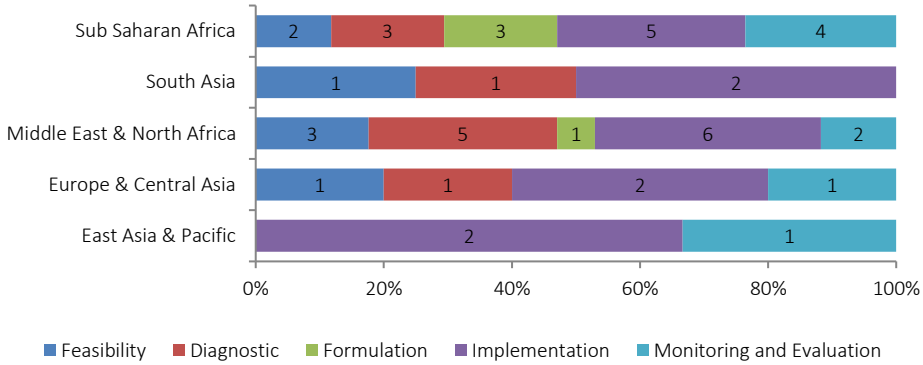
The OIC country groups with the highest adoption rates of explicit NUPs are Sub Saharan Africa (11) and Middle East and North Africa (9) (Figure 7.2). 56% of OIC countries in Sub Saharan Africa and 47% of countries in Middle East and North Africa are already in the phases of implementation, or monitoring and evaluation (Figure 7.3). Implicit or partial NUPs dominate in the OIC countries located in Europe & Central Asia. Among them, Albania and Kyrgyzstan are in the implementation phase.

Figure 7.2: Geographical Distribution of OIC Countries' NUP Forms (2017)



Source: UN Habitat and OECD, *Global State of National Urban Policy*, Nairobi, United Nations Human Settlements Programme, Nairobi, 2018.
Notes: OIC N = 48.

Figure 7.3: Geographical Distribution of OIC Countries' NUP Phases (2017)



Source: UN Habitat and OECD, *Global State of National Urban Policy*, Nairobi, United Nations Human Settlements Programme, Nairobi, 2018.
Notes: OIC N = 48.

Table 7.2 and Figure 7.4 evaluate the NUPs for 27 OIC countries for which data is available, in terms of attention given to different elements of sustainable urbanization. It is evident from the Table 7.2 that countries are not keeping with the commitments made at Habitat III in a balanced way. Spatial structure is the most extensively covered sector by NUPs in OIC countries. Almost 40% of listed countries give extensive attention to this area. Following this result, it could be argued that NUPs in the given OIC countries are predominantly conceived as a policy vehicle for improved planning and service delivery by the state.

Near 60% of OIC countries gives an extensive or moderate attention to human development issues, while extensive or moderate attention to objectives related to economic development is around 45%. Environmental sustainability and particularly climate resilience is the area that receives the weakest degree of attention. Four countries are paying extensive attention to

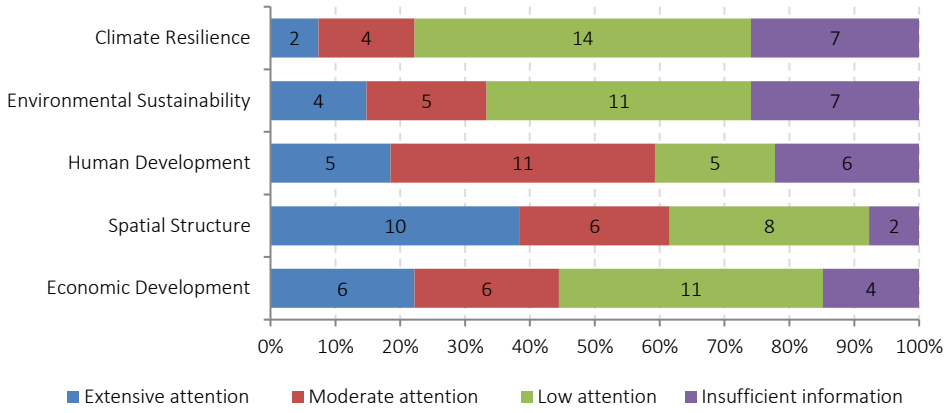
environmental sustainability (Bahrain, Bangladesh, Qatar and Turkey) while only two to are giving strong attention urban resilience (Maldives and Morocco).

Table 7.2: Attention to Certain Topics in the OIC Countries' NUPs (2017)

Country (N=27)	Economic Development	Spatial Structure	Human Development	Environmental Sustainability	Climate Resilience
Albania	*	**	°	°	°
Algeria	**	***	**	**	°
Bahrain	***	**	**	***	*
Bangladesh	**	***	***	***	*
Brunei	*	**	*	*	*
Chad	°	°	°	°	°
Comoros	*	**	*	*	*
Cote d'Ivoire	*	**	**	*	*
Djibouti	***	***	***	*	*
Gambia	°	°	*	°	°
Indonesia	***	***	**	**	*
Kyrgyzstan	°	***	**	**	*
Libya	*	***	°	°	°
Malaysia	***	***	**	**	**
Mali	**	*	**	*	*
Maldives	**	*	**	*	***
Mauritania	*	*	**	*	*
Morocco	**	**	**	**	***
Nigeria	***	*	***	*	*
Oman	*	***	°	°	°
Qatar	**	*	***	***	**
Senegal	*	*	*	*	*
Somalia	°	*	°	°	*
Togo	*	*	***	*	*
Turkey	***	***	**	***	**
UAE	*	**	°	°	°
Uganda	*	***	*	*	**

Source: UN Habitat and OECD, *Global State of National Urban Policy*, United Nations Human Settlements Programme, Nairobi, 2018.
Notes: *** Extensive attention ** Moderate attention * Low attention ° Insufficient information

Figure 7.4: Attention to Certain Topics in the OIC Countries' NUPs (2017)



Source: UN Habitat and OECD, *Global State of National Urban Policy*, Nairobi, United Nations Human Settlements Programme, Nairobi, 2018.
Notes: OIC N = 27.

The encouraging think from NUP indicators is the fact that the OIC governments have started to move from a 'business-as-usual approach' to towards more systematic attention to urbanisation and its challenges. 46 OIC countries have at least partial elements of national urban policies or other development priorities affecting cities, what offers sound foundation on which to build on. However, in many OIC countries, particularly those that are still in feasibility and diagnostic phases, much work has to be done for accelerating development and implementation of NUPs.

Even those OIC countries with NUPs that could be considered successful in the areas of spatial integration and human and economic development, should make sure to address resilience and environmental sustainability issues. Further, more than half of given OIC countries do not have a specialised national urban agency in charge of NUP implementation, but have a general national planning authority to oversee the policy (UN Habitat and OECD, 2018). This underlines the importance of developing coordination mechanism at national level, for successful implementation of NUPs in the countries without a specialised national urban agency.

7.2 Urban Legislation and Decentralization

The NUPs link strongly with urban legislation, without which NUPs cannot be implemented. Urban legislation is the collection of all policies, laws, decisions and practices related to the management and development of the urban environment. If formulated, monitored and reviewed effectively, urban legislation will adequately address the main urbanization challenges, and facilitate more effective and coherent urban governance.

Without adequate urban legislation, cities face multiple risks, such as uncontrolled urban sprawl, the loss of valuable natural protected areas, deepening social inequalities, unaccountable land management, environmental vulnerabilities and inadequate public space (UN Habitat, 2017).

Despite some progress, the main elements of urban legislation across the globe have not undergone significant changes over the last few decades (UN-Habitat, 2016b). Unfortunately, of the various tools used to shape and govern cities, laws are the most difficult to change. In Sub-Saharan Africa, for instance, Colonial-era urban laws are so outdated that are preventing countries from responding to rapid urbanization process (Berrisford and McAuslan, 2017). In general, the urban problems faced by many of OIC cities are challenging, and the need to address them is growing. However, without a workable urban legislation, efficiency in addressing urban issues will remain limited.

Here it should be noted that global comparative research on urban law is still confronted with a substantial data challenge. Yet, there are different efforts helpful to deepen understanding of urban law in the twenty-first century (for example, look at Davidson and Mistry, 2016).

The New Urban Agenda recognizes the leading role of national governments in the definition and implementation of urban legislation, whilst calling for the participation of other relevant stakeholders, including local governments and civil society. Unfortunately, there is no blueprint for urban legal reform in the OIC cities, because the countries' law-making systems, political contexts and urban challenges differ in significant way. Nevertheless, the New Urban Agenda provides a framework for basic urban legislation reforms, which are summarized at Figure 7.5.

Together with urban law, the challenges related to urban governance have also become important consideration in the global development efforts. Cities increasingly rely on advanced institutional capacities, democratic governance and effective management to address issues of sustainable urbanization. The Global Urban Governance Survey – undertaken by LSE Cities in partnership with UN Habitat and UCLG, gives interesting insights on nine OIC cities. According to the survey, lack of skills in the local government, lacking capacity to enforce laws and regulations, as well as lack of respect for laws and regulations is in varying degree relevant issue for all OIC cities in given sample. Overlapping responsibilities, coordination of different sectors/departments, lack of municipal autonomy and other similar issues have also been reported as relevant (Table 7.3). These findings are an open call for OIC governments to invest in building adequate capacities and improve coordination at the subnational level, thus prepare cities for future challenges.

Figure 7.5: References to Urban Legislation, Rules and Regulations in the New Urban Agenda (NUA)

Source: SESRIC staff design based on UN Habitat, *Action Framework for Implementation of the New Urban Agenda,* 19 April 2017.

Table 7.3: List of the Main Governance Challenges in Selected OIC Cities

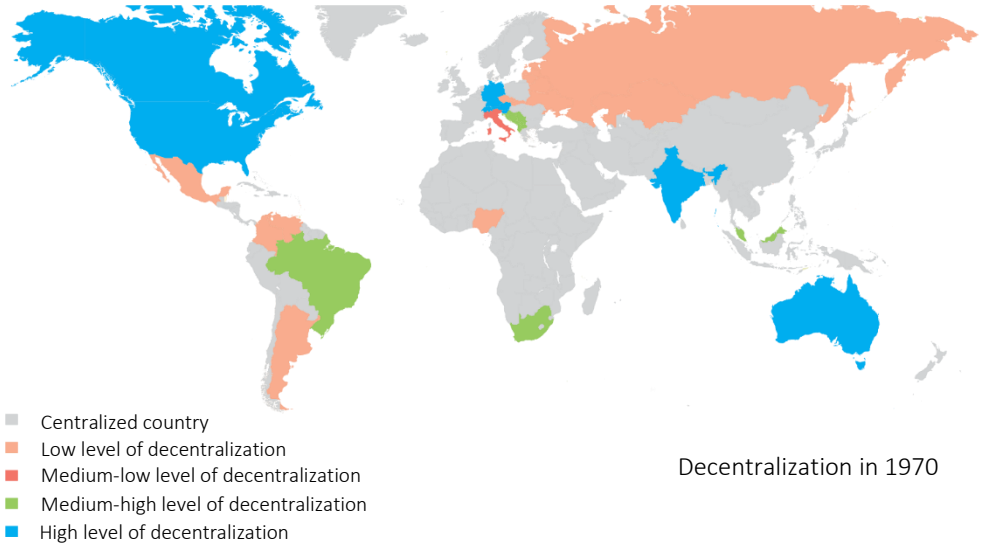
	Not relevant	Somewhat relevant	Relevant	Very relevant	Highly relevant
Inflexible bureaucracies/rigid rules	T	M, R	D, I, L, N		B, S
Insufficient public budgets	B	M	L, N, S	D, I, T	R
Uncertainty of funding	B	I, S	D, L	N, T	R
Lacking capacity to enforce laws		D, T	I	B, L	N, R, S
Interdependence local policy issues/ government silos	T		N	B, M, R	I, L, S
Working across different tiers of government		N, S	D, L, T	B, I, M, R	
Coordination of different sectors/departments			D, I, N, S, T	B, M, R	L
Overlapping responsibilities			I, S, T	B, M, R	D, L, N
Access to useful information	R	T	B, D, I	L, N	S
Lack of skills in the local government		M, R	D	B, N	I, L, S, T
Politicisation of local issues	R		B	N, S	D, I, L, T
Limited scope of responsibilities		D, L, T	R	B, I	S
Lack of municipal autonomy		D	T	B, I, R	L, N, S
Lack of interest of citizens on local issues	T	D, M, S	B, I, L	N, R	
Lack of trust in local government	D	M	I, T	N, R	B, L, S
Lack of respect for laws and regulations		D, M	I, T	L, R, S	B, N
Limited access of citizens to policymaking	T		B, D, I, M	L, N, R	S
Underrepresentation of marginalised groups	D, N, T		B, I, R	L	S
Risks of Corruption		D, I, N, T	M, R	B	L, S

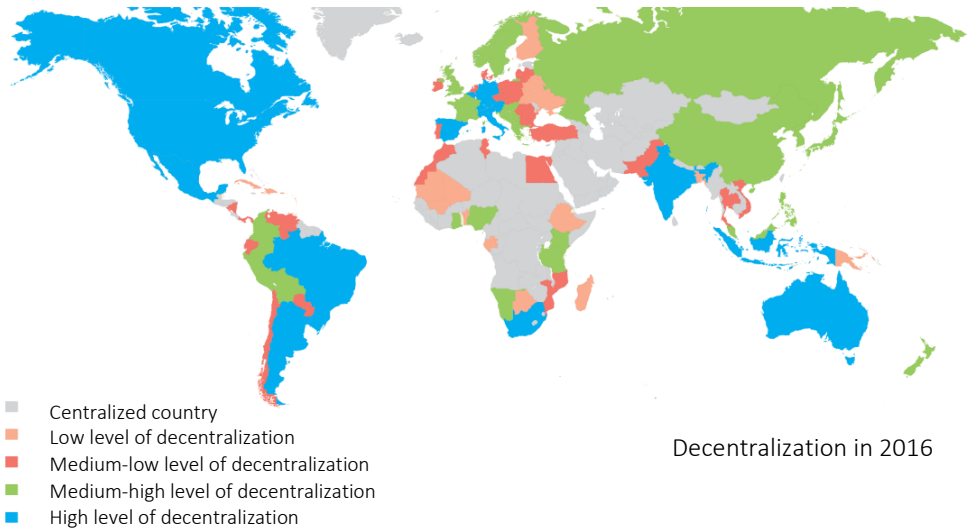
Source: Global Urban Governance Survey, LSE Cities, UN Habitat and UCLG, 2016, https://urbangovernance.net
Notes: B: Beirut (Lebanon); D: Dakar (Senegal); I: Izmir (Turkey); L: Lagos Island (Nigeria); M: Meknes (Morocco); N: Nouakchott (Mauritania); R: Ramallah (Palestine); S: Sousse (Tunisia); T: Tehran (Iran).

NUP and related urban laws should be supportive of decentralization, i.e. establishment of institutional and legal frameworks for decision-making and the empowerment of subnational institutions in terms of fiscal, administrative, political and legal processes. According to Regional Authority Index and different devolution indexes, the level of decentralization of the world has increased substantially in the last five decades (Figure 7.6).

However, many OIC countries remains to be centralized. Only Indonesia appears to be the highly decentralized OIC country, followed by Albania, Brunei, Malaysia and Nigeria in the category of medium-high level decentralized countries. Egypt, Morocco, Mozambique, Pakistan, Tunisia and Turkey are within the group of countries with medium-low level of decentralization, while Bangladesh, Benin, Gabon, Mali and Mauritania are grouped within countries with low level of decentralization. The rest of OIC members are marked as centralized countries. Since the governments of OIC countries are compelled to meet the SDGs and the New Urban Agenda targets, they should increasingly take role in cities and support them through delegating both responsibilities and resources.

Map 7.1: Levels of Decentralization (1970, 2016)





Source: UNDP et al., *Localizing the SDGs: The Trainer's Guide*, July 2017.

The participation of subnational governments at the UN's High Level Political Forum (HLPF) - the central platform for the global review of the SDGs, could be considered as a qualitative indicator of decentralization efforts. The New Urban Agenda acknowledges the importance of subnational governments as active partners in follow-up and review of SDGs. Their participation in follow-up and review of SDGs is a unique opportunity to widen engagement with all the parts of government that implement the global development goals. However,

participation by subnational governments in the global reviews of the SDGs at the HLPF has been limited, despite the intended inclusiveness of this forum (Eleni at al., 2018).

Among the 65 countries that have reported to the HLPF before July 6, 2017, 38 of them mention that subnational governments were included in the consultation process leading to the publishing of the Voluntary National Reviews, while only 27 have included subnational governments in high-level decision-making or consultation mechanisms (UCLG, 2017). The number of involved OIC subnational governments in the process of review of the SDGs are shown in Table 7.4, from where is obvious that the participation of local governments in many reporting OIC countries remained limited to a narrow group of municipalities and cities.

Table 7.4: The OIC Subnational Governments' Reporting to the High Level Political Forum

	Reporting period	Regional-state level	Intermediate level	Municipal level	Total
Afghanistan	2017	0	34	119	153
Azerbaijan	2017	1	90	1,607	1,698
Bangladesh	2017	8	64	490	562
Benin	2017	0	0	77	77
Egypt	2016	27	0	371	398
Indonesia	2017	34	0	514	548
Iran	2017	31	429	1,057	1,517
Jordan	2017	0	0	94	94
Malaysia	2017	13	0	149	162
Maldives	2017	0	0	21	21
Morocco	2016	12	75	1,503	1,590
Nigeria	2017	37	0	774	811
Qatar	2017	0	0	7	7
Sierra Leone	2016	4	14	149	167
Tajikistan	2017	4	0	79	83
Togo	2016, 2017	6	30	354	398
Turkey	2016	81	0	1,397	1,478
Uganda	2016	112	0	196	308

Source: UCLG, *Local and Regional Governments' Report to the 2017 HLPF: National and Sub-National Governments on the Way towards the Localization of the SDGs*, United Cities and Local Governments, Barcelona, 2017.

According to analysis done by United Cities and Local Governments (UCLG), among OIC countries best participation of subnational governments in the consultation processes for the Voluntary National Reviews was in Benin, Nigeria, Togo and Uganda. Partial involvement of subnational governments was in Bangladesh, Indonesia, Iran, Jordan, Sierra Leone and Tajikistan, while involvement of subnational governments was just mentioned in Azerbaijan, Brunei, Egypt, Malaysia, Morocco and Turkey (UCLG, 2017)

Some OIC countries, such as Togo, have organized workshops, forums, hearings, interviews, etc., for consultation with the subnational governments. However, in some cases, for instance in Indonesia and Jordan, such activities targeted more civil society than subnational governments, to the extent that associations of subnational governments perceived that they had not been adequately included in the consultation process. In case of Turkey, associations of subnational governments stated overtly that they had not been involved at all in the consultation process for the Voluntary National Reviews (UCLG, 2017).

7.3 Finance of Subnational Governments

Having a NUP and reformed urban law is important basis for the implementation of the New Urban Agenda. However, for achievement of national and urban development targets, subnational governments have to be supported by adequate financing and the capacity building. All national governments are expected to transfer their cities some powers that they need - to start to grow their domestic revenue bases. Moreover, central governments have to support cities for better managing of finances, as well as facilitate their access to international finance institutions' funds. Thus, cities would be able to mobilize capital for investment in sustainable urbanization, following the vision of national NUPs.

The Addis Ababa Action Agenda recognizes that in many countries "expenditures and investments in sustainable development are being devolved to the subnational level, which often lacks adequate technical and technological capacity, financing and support" (UNGA, 2015, A/RES/69/313). According to one research, global average of subnational governments' investments represents almost 40% of world's public investments (OECD and UCLG, 2016). Yet, subnational governments, particularly in countries with lower income, face considerable challenges in mobilizing adequate revenue to meet expenditures and make long-term investments in support of sustainable urbanization.

The most common measure of 'spending decentralization' is the share of public spending that takes place at the subnational level.[5] Unfortunately, comparative data sources for measuring spending decentralization provides quite limited coverage for the developing countries. Table 7.5 provides information on expenditures and revenues of subnational governments for selected OIC countries, both as a percentage of GDP and as a percentage of general government finances.

In 2014, subnational government expenditure in OECD area accounted for 17% of GDP and 40% of total public expenditure, while subnational government revenue represented 16% of GDP and 42.3% of public revenue on average (OECD, 2016). Almost all OIC countries showed in Table 7.5 remain significantly below these OECD averages. Subnational government

[5] The share of public spending at the subnational level, as an indication of autonomy should be interpreted with caution. A high level of subnational expenditure does not necessarily mean a high level of decentralisation, as in some cases these expenditures are delegated from the central government, where subnational government act as an accountant or "paying agent", with little or no decision making power (OECD, 2016).

expenditures account for a more significant portion of GDP and of total government expenditures and revenues in the Kazakhstan, Indonesia, Kyrgyzstan and Nigeria, while accounts for a very small portion of GDP and general government finances in Chad, Guinea, Azerbaijan, Benin, Burkina Faso, Tunisia, Senegal, Mali and Jordan (see Table 7.5).

Table 7.5: Expenditure and Revenue of OIC Subnational Governments (2013)

	Total Expenditure		Total Revenue	
	% GDP	% General Government	% GDP	% General Government
Kazakhstan	9.4	46.3	9.5	37.2
Indonesia	6.8	36.4	7.2	42.6
Kyrgyzstan	5.8	19.8	5.9	20.7
Nigeria	5.3	38.1	4.9	40.0
Albania	4.1	14.6	4.2	-
Turkey	4.0	10.7	3.7	15.5
Morocco	3.7	11.8	3.6	15.1
Palestine	3.3	10.2	3.3	12.6
Uganda	3.1	16.5	3.2	10.0
Malaysia	3.0	9.9	3.1	19.2
Jordan	2.1	5.8	2.1	6.5
Mali	2.0	11.7	2.1	6.1
Senegal	1.7	5.9	1.9	7.7
Tunisia	1.6	4.3	1.8	12.2
Burkina Faso	1.2	3.9	1.3	6.7
Benin	1.2	5.6	1.2	5.4
Azerbaijan	1.1	3.0	0.6	1.5
Guinea	0.2	0.8	0.6	2.4
Chad	0.1	0.4	0.3	1.4
Niger	-	-	0.3	1.0
Togo	-	-	0.1	0.7

Source: OECD and UCLG, *Subnational Governments Around the World: Structure and Finance*, OECD, Paris, 2016.
Notes: Total revenue data for Burkina Faso, Guinea, Tunisia and Malaysia are as of 2012.

In Kazakhstan, subnational government expenditure represents 9.4% of GDP and 46.3% of public expenditure in 2013, but there is much deconcentrated spending, i.e. subnational government act as a paying agent of central government. On the other hand, in Kyrgyzstan subnational bodies are often obliged to fulfil additional tasks delegated by central government without corresponding financial resources, while in Federal Republic of Nigeria the governments of 36 states perform many local functions and local governments are merely administrative extensions of a state (OECD and UCLG, 2016).

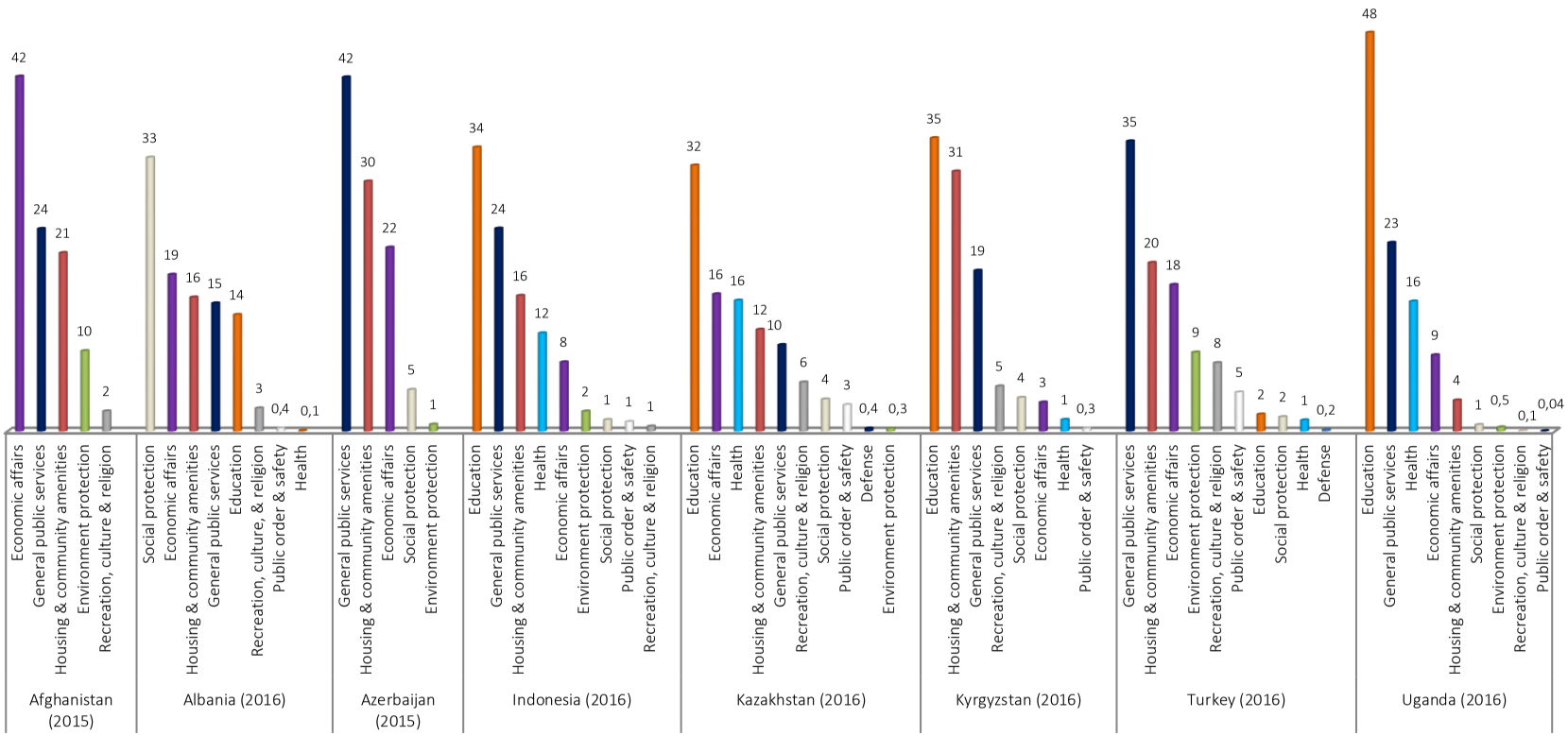
In Chad, Benin, Burkina Faso and Guinea local governments' expenditure is constrained due to lack of financial resources and weak financial management in some cases, while in Azerbaijan and Tunisia local authorities have limited spending responsibilities.

In Jordan, the central government had a tendency to privatize certain competences that should be devolved to municipalities, thus limited the range of their responsibilities (OECD and UCLG, 2016). The parliament of Senegal passed a law in 2013 which is increasing decentralisation and reforming the Local Government Code, however it did not grant local authorities the power to collect taxes, but clarified which tax revenues local councils are entitled to (AfDB at all, 2017).

In 2016, education sector had a largest proportion in expenditures of subnational governments in Uganda (48%), Kyrgyzstan (35%), Indonesia (%34) and Kazakhstan (%32). Economic affairs account for a large proportion of local expenditures in Afghanistan, but appear to be less important in other OIC countries presented in Figure 7.6. The bulk of OIC subnational governments' spending is on general public services, social protection and housing and community amenities (supply of potable water, public lighting, urban heating and facilities), while spending on environmental protection remains at symbolic levels (Figure 7.6).

Two common revenue sources for sub-national governments are user fees and local taxes. However, data presented above points out to challenges faced by OIC subnational governments in financing their operational expenditures as well as investments. Addressing these challenges require a better understanding of the financing options available to subnational governments. Together with actions related to raising domestic revenues through user fees and taxes, the OIC subnational governments should consider whether they could better utilize the real estate and commercial assets they own. Even poor cities may possess valuable assets that are not being used well or developed (Detter and Stefan, 2017). For example, land is one of the most valuable municipal assets and OIC subnational governments need to be encouraged to use land value capture mechanisms. Cities should also have a good understanding on municipial firms and commercial ventures that they often own. Creating innovative partnerships, such as public-private and multi-stakeholder ones, will also be necessary to find efficient ways to finance urbanization. Enabling cities to enhance their creditworthiness and access capital markets may also be essential for city financing to keep pace with the growing demand for basic urban services.

Figure 7.6: Breakdown of Subnational Expenditures in Selected OIC Countries



Source: IMF, Government Finance Statistics (GFS) database.

CHAPTER EIGHT

Planning for Making Cities More Sustainable

Planning and design of urban space plays a central role in contemporary urban life. The quality of living, social and physical health, order and stability and many other aspects of urban life are closely associated with a socially and environmentally responsible urban planning and design (Knox, 2011). Furthermore, effective management of urban space is a requirement for competitiveness of local and national economies; it creates the conditions for realization of development projects, attracting entrepreneurs and investors, increasing demand, thus paving the way for new jobs, more developed infrastructure and innovations.

Urban planning in many parts of the world is under heavy influence of international practices, although in most cases it takes into consideration the tradition and culture of a certain environment (UN Habitat, 2009). However, today urban planning and design is at a crossroad. Traditional planning is facing many difficulties in addressing the complex and rapidly changing factors that are affecting urban areas. Evidence from previous chapters of this report suggests that traditional urban planning has largely failed to address existing challenges in OIC area, such as urban sprawl, growth of slums, urban poverty and vulnerability of millions of urban dwellers to climate-related hazards. For that reason, there is a growing debate on forms of urban planning and design, which seeks to determine best modalities for dealing with the problems of sustainable urbanization. The new concepts such as smart cities, competitive cities, green cities, low-carbon cities and resilient cities are the products of this debate.

8.1 Integrated Urban Development

The precondition for the sustainable development of a city as an attractive modern centre is to establish a rational system of planning and governance, that begins with the adoption of the integrated urban development approach. This approach lies on the premise that successful cities cannot be built by governments alone and indicates to the need for urban planning led by the collective decision of key government departments, infrastructure providers, organisations, associations, including civil society, business groups and other stakeholders. In this way, it moves urban governance from a top-down and hierarchical system of administration toward a horizontal and network-oriented transparent framework.

Crucial element of integrated urban development approach is moving from rigid and isolated sectoral interventions to more flexible and more comprehensive multi-sectoral interventions, considering interrelationship among housing, transportation, land use, infrastructure, environment, employment, education, natural resources and other policy areas (UN Habitat, 2016a). In traditional master planning, for example, transport was often isolated from land use planning and this sectoral divide has caused wasteful investment with long-term negative consequences for a range of issues, including residential development, commuting and energy consumption.

Planning responses to integrated urban development approach should be strategic, i.e. visionary, participatory, democratically agreed, in line with global development agenda, but also authentic, supportive to history, tradition, identity, resources and specific development goals of a given place.

Integrated Urban Development Strategy is a process that define the goals of city development, while accompanying operational urban plans are a tool for implementing of the strategy. Operational plans must be sufficiently defined and binding, but also adaptive and elastic enough for implementation at changed conditions over time. Of course, it is necessary to provide the legal framework that allows the selection of appropriate instruments by city management, as well as that permits continuous updating of the Integrated Urban Development Strategy goals. National governments have also a role to play in strengthening the technical capabilities of city authorities, particularly for developing and implementing of strategic plans.

Box 8.1: What Went Wrong With a Traditional Planning?

Urban planning emerged as a modern profession and discipline in the nineteenth century, largely in response to rapidly growing cities in Western Europe. The traditional urban planning is a technical activity, carried out by trained experts and based on an overview of the existing situation, projections of physical and economic development, and the planning and design of human settlements. Traditional planning involves the production of master plans whose primary targets are economy, transportation, housing and industry, while water, biodiversity, air pollution and other ecological dimensions are not (Forman, 2008: 28).

Intention to control population movements and the spread of slums in cities while promoting the form of low-density and dispersed urban forms are the most recognizable feature of master plans. Under this understanding, for example, slums have to be demolished. However, this approach have largely proven to be ineffective and has resulted in massive urban sprawl and the development of new towns with little market demand.

Another feature of master plans and associated rules and norms is their rigid character, which do not reflect enough the actual needs of urban dwellers and the needs of business sector. Often they give rise to corruption and serve the individual interest instead of public interest. On the other hand, the primary legal tool for implementing traditional master plans is strict land-use zoning, which determines whether planning permission on a certain part of land will be granted or not. In some cases, middle and high-income groups are able to use these master plans and zoning regulations for maintaining property prices and preventing arrival (exclusion) of lower-income residents in certain urban areas. In general, master panning has failed to incorporate the interests of the vulnerable groups such as urban poor, woman and the aged people (UN Habitat, 2016a).

Today, some countries have replaced the master planning approach with urban plans that are strategic, inclusive and flexible. However, in many parts of the world, including the OIC area and other developing countries, the idea of master planning and land-use zoning is still alive, causing many urban problems (UN Habitat, 2009).

Figure 8.1: Steps for Developing of the Integrated Urban Development Strategy

Source: Prepared by SESRIC staff based on good examples.

Cities have different forms. Some are developing around a historic core, some have more than one centres, and others sprawl across vast areas. These physical characteristics greatly affect their economic, social and environmental performance (Ahlfeldt et al., 2018). Integrated Urban Development promotes compact cities and transit-oriented development, which advocates the management of the peripheral expansion of cities in the interest of more compact cities with higher density. Inter alia, it suggests:

- Creation of mixed land use areas that integrate housing, commerce and offices, and that serve an inter-generational mix of diverse people with diverse incomes and cultures,
- Pedestrian and bicycle friendly settings,
- Greater shares for public transportation, public facilities and open spaces,
- Better connectivity with neighbouring towns and rural areas to generate economies of agglomeration.
- Landscaping that preserves and enhances wetlands and natural habitat,
- Tree canopy and overall urban design based on ecological principles.

Compact urban development coupled with high residential and employment densities can reduce energy consumption, vehicle miles travelled, CO2 emissions (lower emissions in transportation, and the heating and cooling of buildings), as well as save land for agriculture, wildlife and habitat by using less land for urban development.

In general, creating and operating the same infrastructure at higher densities is more efficient, more economically viable and often leads to higher-quality services (Nature, 2010: 912-913). Drawing on more than 300 academic papers that study the effects of compact urban form, report titled "Demystifying Compact Urban Growth: Evidence from 300 Studies across the World" demonstrates that higher city density generates significant economic returns. Overall, 69% of the papers reviewed found positive effects associated with compact urban form (Ahlfeldt et al., 2018).

It is argued that low-density sprawls are segregating people to economic and land use enclaves, limiting their interaction and separating them from nature. Compact cities are pointing out to different context, where job of architects and urban designers is to design the quality of public spaces (especially squares and marketplaces), functional street furniture, public sculpture and well-designed flooring. Thus providing opportunities for informal, casual meetings of people; a variety of comfortable places to sit, wait and people-watch; friendly third places (cafés, restaurants etc.) and above all, a sense of identity and belonging to a city (Knox, 2011: 247).

8.2 Managing Expansion of Cities through Efficient Land Use

According to data from Demographia, in 2018, average population density (per square kilometre) of the 217 large OIC cities was 6,501 persons, double than the average population density in large built-up urban areas of developed countries (2,980 persons), but significantly less than the average population density of large built-up urban areas in non-OIC developing

world (8,688 persons) (Figure 8.2). Much of the OIC population (49%) in the 217 large cities lives at densities between 4,000 and 10,200 per square kilometer (see Figure 8.3).

Figure 8.2: Average Population Densities of Largest Built-Up Urban Areas in the World (per square kilometer, 2018)

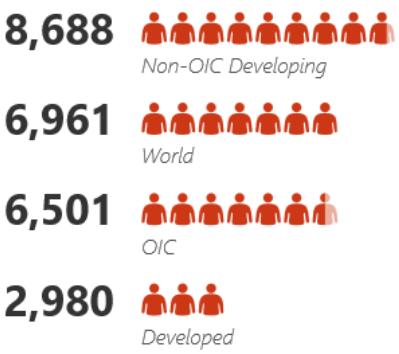
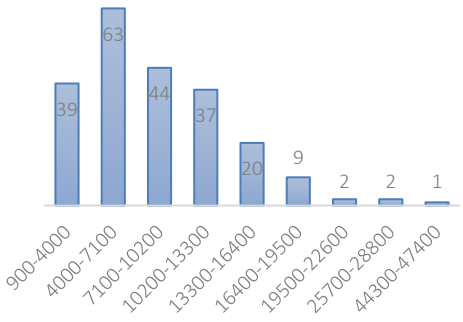


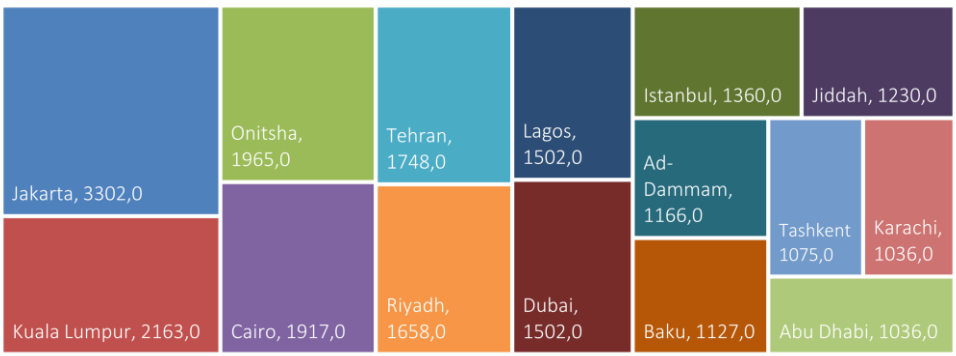
Figure 8.3: Breakdown of 217 Largest OIC Cities According to Population Densities (per square kilometer, 2018)



Source: Demographia, *World Urban Areas*, 14th Annual Edition, March 2018.
Notes: Urban areas with 500,000 and over population. OIC N=217; Non-OIC Developing N=630; Developed N=217; World N=1064.

The largest built-up urban area in OIC is Jakarta with estimated 3,302 square kilometres (Figure 8.4). In this respect, Jakarta is followed by Kuala Lumpur (2,163), Onitsha-Nigeria (1,965) and Cairo (1,917 square kilometres). The smallest OIC built-up urban areas with more than 500,000 population are Rajshahi (Bangladesh) and Larkana (Pakistan), both of them having only 31 square kilometres of built area.

Figure 8.4: The OIC's Largest Built-Up Urban Areas (square kilometers, 2018)



Source: Demographia, *World Urban Areas*, 14th Annual Edition, March 2018.

The 25 densest OIC urban areas with more than 500,000 population are shown in Figure 8.5. Dhaka (Bangladesh) is by far the highest world density urban area, with 47,000 residents per square kilometer. The second densest large urban area in OIC is Mogadishu (Somalia) with

28,600 residents per square kilometer. The least dense large OIC city is Ad-Damman (Saudi Arabia), with 900 residents per square kilometer.

Figure 8.5: The 25 OIC Densest Urban Areas with More than 500,000 Population (2018)

Country	Urban Area	Population Density (Per Square Kilometer)
Bangladesh	Dhaka	47,400
Somalia	Mogadishu	28,600
Bangladesh	Chittagong	18,800
Bangladesh	Rajshahi	18,300
Senegal	Dakar	17,800
Egypt	Alexandria	16,900
Bangladesh	Bogra	16,900
Iraq	Irbil	16,700
Pakistan	Larkana	16,700
Egypt	Port Said	16,500
Morocco	Casablanca	16,200
Cameroon	Douala	16,200
Pakistan	Hyderabad	16,100
Afghanistan	Kabul	15,400
Cameroon	Yaounde	15,300
Palestine	Gaza	15,300
Bangladesh	Khulna	15,000
Indonesia	Tasikmalaya	14,900
Pakistan	Sargodha	14,800
Nigeria	Lokoja	14,700
Iraq	Sulaimaniya	14,300
Egypt	Al Mahallah al Kub	14,300
Nigeria	Aba	14,200
Pakistan	Sukkur	14,200
Bangladesh	Sylhet	14,000

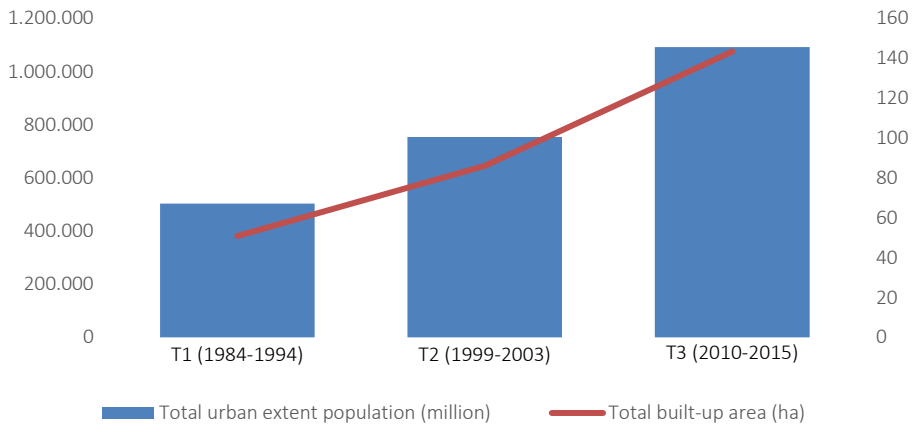
Source: Demographia, *World Urban Areas*, 14th Annual Edition, March 2018.
Notes: OIC N=217 cities.

In some cases, geo-political factors may restrict development of suburbs, thus pave the way for high densities in cities. There are also significant differences in density variation within built-up urban areas, and average urban density does not provide any information on such variations (Demographia, 2018). In general, almost all of the world's large urban areas have extensive suburbs of much lower density, outside the historic cores - characterized by higher densities. In case of Africa, urbanisation is happening mostly in a rural-urban interface – areas with fewer than 500,000 inhabitants, where 82% of Africa's population lives (AfDB at al., 2017).

As people move to urban areas, cities tend to expand their geographic boundaries to accommodate new inhabitants. Figure 8.6 shows the total urban extent population and built-

up area growth results for 42 cities[6] located in different OIC regions. Between 1999-2003 and 2010-2015 periods, the expansion of urban land (40%) outpaced the growth of urban population (31%). As a result, 42 OIC cities on average became less dense as they grew, causing unplanned urban sprawl, where informality is becoming more common over time. Existence of growing urban sprawl suggests that the share of the areas of cities within walking distance of arterial roads is declining, and that urban peripheries are not effectively connected to metropolitan labour markets, making cities less productive and less inclusive (Shlomo Angel et al.,2016).

Figure 8.6: Total Urban Extent Population Growth and Total Built-Up Area Expansion (42 OIC cities)



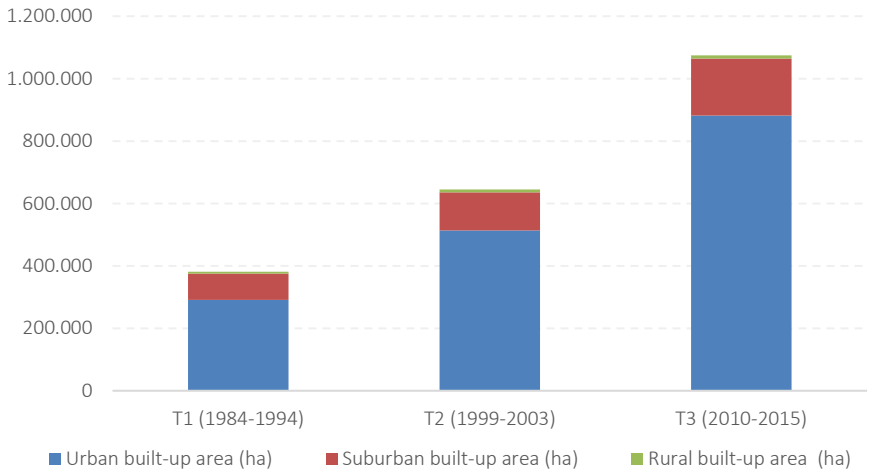
Source: Shlomo Angel et al., *Atlas of Urban Expansion*, 2016 Edition, Volume 1: Areas and Densities, New York University, UN-Habitat and Lincoln Institute of Land Policy, New York, 2016.
Notes: Last year available data for T1, T2 and T3 periods. Total built-up are (left axis), total urban extent population (right axis). The urban and suburban built-up area, together with the urbanized open space in and around them, make up urban clusters. Largest urban cluster in a given study area of a given city is defined as the urban extent of the city.

Figure 8.7 present another evidence on the fact that the densities of OIC urban areas have been dropping, and that non-compact urban expansion has been guiding city planners over years. Between 1999-2003 and 2010-2015, together with the rise in urban built-up area (42%), suburbanization (urban sprawl) in 42 OIC cities increased for 33%. For that reason, many OIC cities are faced with difficult challenges arising from the rapid expansion of their build-up areas

[6] Afghanistan (Kabul), Algeria (Algiers, Tebessa), Azerbaijan (Baku), Bangladesh (Dhaka, Rajshahi, Saidpur), Egypt (Alexandria, Cairo), Indonesia (Cirebon, Medan, Palembang, Parepare, Pematangtiantar), Iran (Ahvaz, Gorgan, Qom, Tehran), Iraq (Baghdad), Kazakhstan (Shymkent), Malaysia (Ipoh, Rawang), Mali (Bamako), Morocco (Marrakesh), Mozambique (Beira), Nigeria (Gombe, Ibadan, Lagos, Oyo), Pakistan (Karachi, Lahore, Sialkot), Saudi Arabia (Riyadh), Sudan (Khartoum), Tunisia (Kairouan), Turkey (Istanbul, Kayseri, Malatya), Uganda (Kampala), Uzbekistan (Bukhara, Tashkent) and Yemen (Sana).

and the low-density sprawl. Total built-up area expansion of some OIC cities is shown at Map 8.1.

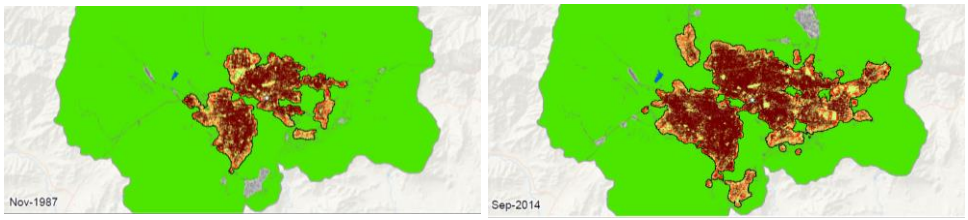
Figure 8.7: Breakdown of Total Built-Up Area Growth (42 OIC Cities)



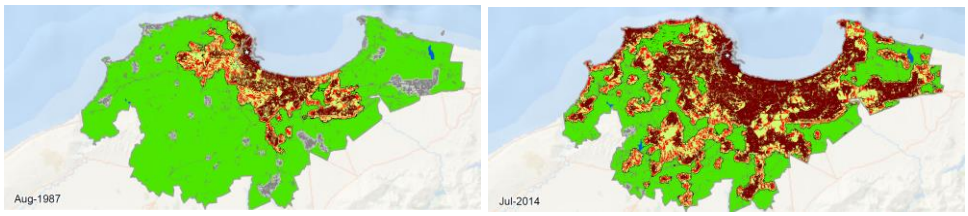
Source: Shlomo Angel et al., *Atlas of Urban Expansion*, 2016 Edition, Volume 1: Areas and Densities, New York University, UN-Habitat and Lincoln Institute of Land Policy, New York, 2016.
Notes: Last year available data for T1, T2 and T3 periods.

Map 8.1: Total Built-Up Area Expansion of Some OIC Cities

Kabul, Afghanistan

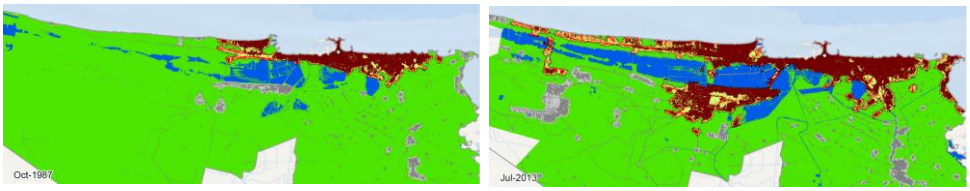


Algiers, Algeria



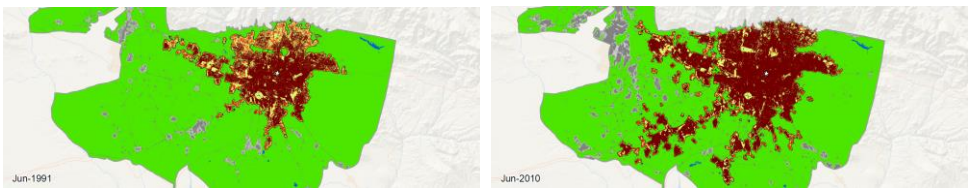
Baku, Azerbaidjan

Alexandria, Egypt



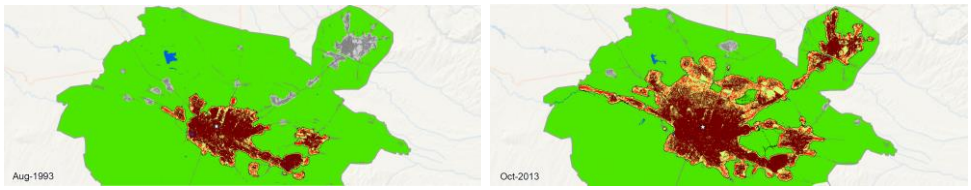
Medan, Indonesia

Tehran, Iran

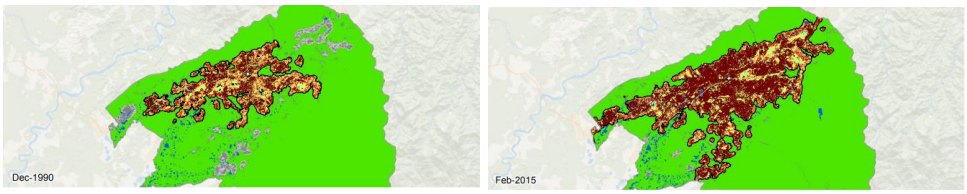


Baghdad, Iraq

Shymkent, Kazakhstan

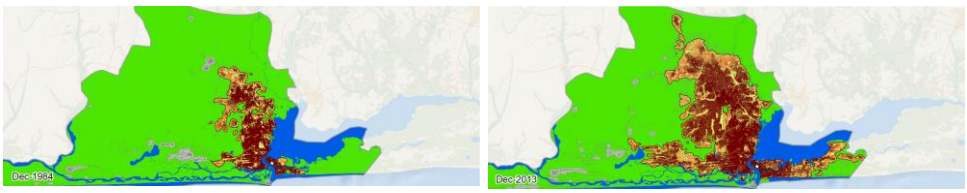


Ipoh, Malaysia

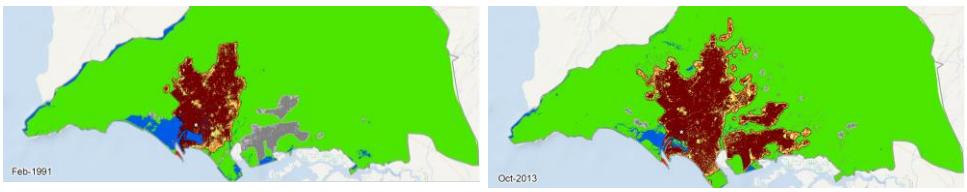


Bamako, Mali

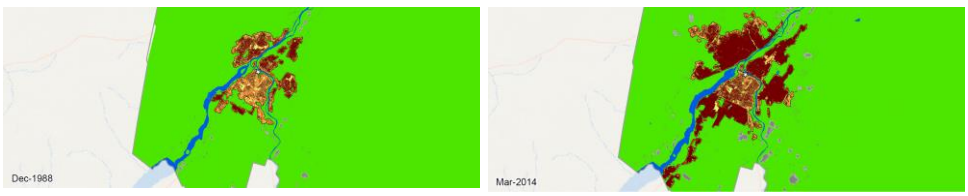
Lagos, Nigeria



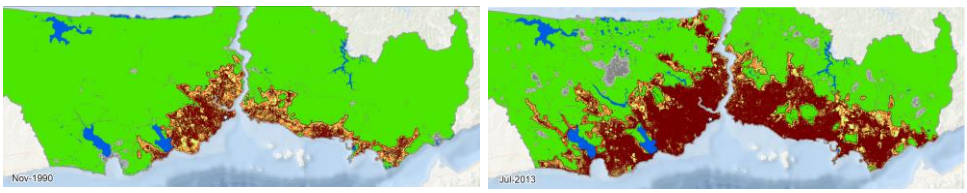
Karachi, Pakistan



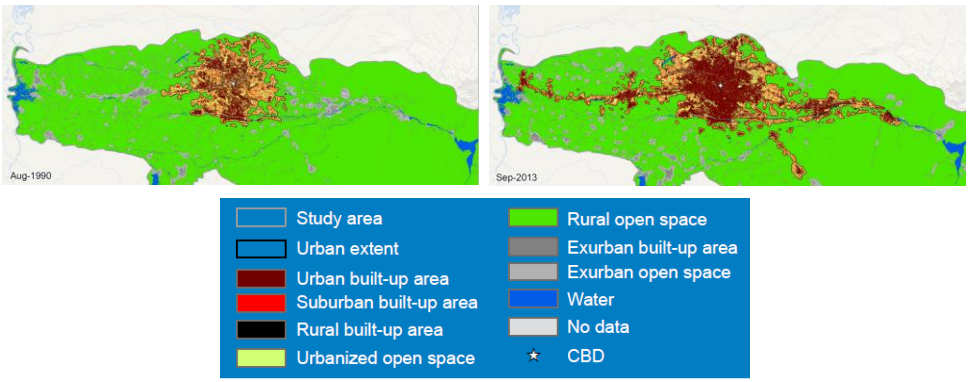
Khartoum, Sudan



Istanbul, Turkey



Tashkent, Uzbekistan



Source: Shlomo Angel et al., *Atlas of Urban Expansion*, 2016 Edition, Volume 1: Areas and Densities, New York University, UN-Habitat and Lincoln Institute of Land Policy, New York, 2016.

When cities grow in population and wealth, they usually expand and make necessary efforts to increase the quantity and quality of land for urban use. Since the rate at which populations and land cover are becoming urban is faster than at any other time in history, the conversion of land from rural to urban should be guided by effective policies, in harmony with sound municipal plans or regulations.

The Bogota Commitment and Action Agenda calls for utilization of land use plans and regulations as a strategic tool to manage urban sprawl, reduce disaster risk, foster social inclusion, value local culture and heritage, reduce land and housing speculations and guarantee security of land tenure. It also recommends to design infrastructure plans alongside land use plans (UCLG, 2016).

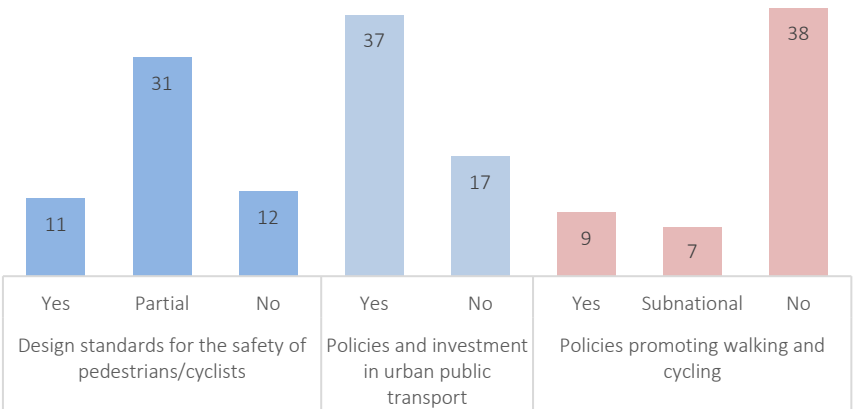
Integrated urban development approach also request from cities to reform their attitude towards urban land management and spatial planning (Ellis and Roberts, 2016). Land management comprises two main groups of activities: (1) developing the land by making substantial investment in the land or changing existing land usage, and (2) monitoring, administration and controlling (Gerhard, 1997). On the other hand, spatial planning broadly refers to the patterns of land use, densities and connecting infrastructure within cities and across subnational regions. Alongside the land management and addressing informality, spatial planning plays important role in guiding the expansion of cities (Ellis and Roberts 2016), while the performance in land management and spatial planning affects the sustainability of cities.

In general, land management and spatial planning play a critical role for the physical, social and economic character of urban settlements (World Bank, 2010). For example, zoning, building codes and land subdivision regulations clearly have a direct bearing on the density of urban expansion. Reforming the land management and spatial planning in a way that is supportive to compact cities approach may generate several gains, which include: (a) reducing infrastructure and servicing costs (low densities and urban sprawl adds costs to local

governments as a result of greater infrastructure, public service delivery and transport costs); (b) rethinking floodplain design to reduce flood-damage costs (land-use planning plays a central role in addressing climate change risks and building effective mitigation and adaptation strategies); (c) maintaining diverse productive agricultural landscapes on the best soils and (d) investing in key areas for nature protection and nature-based tourism (Forman, 2008).

Ideally, land management should aim at providing safe and affordable housing and a minimum standard of living, supported with functional transport corridors and easy connections between jobs and housing, including walking and cycling (Glaeser and Joshi-Ghani 2013). Unfortunately, as Figure 8.8 shows, on average OIC countries are not performing well enough when it comes to national policies for promoting walking and cycling, as well as developing safety standards for the pedestrians and cyclists. 17 out of 54 OIC countries even does not have policies and investments in urban public transportation.

Figure 8.8: Walking, Cycling and Urban Transport Policies in OIC Countries (2016)



Source: WHO, *Global Status Report On Road Safety 2018*, Geneva: World Health Organization, 2018.
Notes: OIC N=54.

Existing literature points out to the fact that in many parts of the world, land management systems are not fit for increasing sustainable urban development, such it is a case with African cities (AfDB et al., 2017). For that reason, urban land reforms should be at the heart of national urban policies. Yet, the effective legal framework should be in place, for urban land to be allocated and traded efficiently, and for taxes to be paid by property owners to fund municipal services (UN Habitat, 2016b). Otherwise, outward expansion far beyond formal administrative boundaries and informal settlements will remain to be a defining feature of many OIC cities.

CHAPTER NINE

Policy Issues for Sustainable Urban Development in OIC Countries

Urban population growth can mean more economic activity and social well-being, but it can also mean added burden on, inter alia, energy, water, health, transport and housing facilities. All these, in turn, put pressure on the environment and climate change. Rapid urbanisation trend in the OIC countries has produced a number of positive effects. However, many cities experience large population gains without the accompanying economic growth.

Unfortunately, knowledge and data on the OIC urban areas are very limited and fragmented. For that reason, one of the biggest risks in trying to identify the OIC urban priorities is working on assumptions. No one can say for sure which policies will most effectively improve urban conditions in the OIC area, due to additional two reasons. First, cities are complex systems whose economic, social, environmental and infrastructural components are strongly interrelated, and therefore difficult to understand in isolation. Second, the cities of the Islamic world have both differences and similarities in terms of the scale and urgency of their problems as well as their development patterns. This means that tailored policies are necessary to address the challenges and use the opportunities of each city. Still, following general recommendations can be drawn from the findings of this report.

Basics First

There is no doubt that city governments should concentrate on getting the basics in place, such as access to fresh water, electricity, sewage and sanitation, roads and affordable housing. Otherwise, failure to sufficiently provide these services threatens the health and security of urban dwellers, especially the poor, and reduces economic activities.

Tailoring infrastructure and service systems around the basic needs of residents particularly make sense for the OIC countries that are straggling with huge informal settlements in cities. Nevertheless, success of cities will not depend only on their current spending on physical investments, but also long-term social investments, particularly education, that accumulate human and economic wealth.

Coordination Mechanism for the Implementation of NUPs

The New Urban Agenda calls on national governments to put sustainable urbanization targets at the heart of national development efforts. The active participation of cities is necessary to achieve many national policy goals, including the goals of 2030 Agenda for Sustainable Development. In this context, effective delivery requires active collaboration among national and subnational governments.

Sustainable urbanization necessitates a long-term thinking and proactive approaches. National Urban Policy (NUP) is an important tool that puts in place a vision for achieving desired urban outcomes, including addressing urban poverty, promoting equitable opportunity, improving the connectivity among cities, promoting urban-rural linkages etc. Each national government has to identify its own domestic priorities that best suit their situation. Those OIC countries that are rapidly urbanizing but still predominantly rural should pay attention to equilibrium

between priorities in urban and rural areas. Anyway, the devolution of appropriate responsibilities and resources is necessary to enable city authorities to address the challenges on the ground.

In the OIC countries that do not have a specialised national urban agency, governments have to make sure that effective coordination mechanism at national level is set up. The coordination mechanism should contain clear instructions on responsibilities of relevant institutions at different levels. Monitoring and enforcement mechanisms are also necessary for ensuring the progress in implementation of a NUP.

Integrated Urban Development

NUPs have to be supported by improvements in governance. Cities increasingly rely on effective governance and advanced institutional capacities to address issues of sustainable urbanization. The findings of this report are an open call for the OIC governments to invest in building adequate technical capacities - particularly for developing and implementing of strategic plans, and strengthening the mechanisms that hold local governments accountable for their actions. National governments have also a role to play in appointing more professional local managers, which is possible only through separating politics from day-to-day urban governance needs.

In line with a NUP, subnational governments are expected to adopt an Integrated Urban Development Strategy. In this regard, local governance has to allow all relevant public and private stakeholders to participate in formulating the strategy. Moreover, having in mind interrelationship among housing, land use, infrastructure, environment, employment, education, natural resources and other policy areas, the cross-sectoral interventions are proposed, which will also reduce jurisdictional fragmentation that often acts as a barrier to improved governance.

Data collection is necessary to improve the local management, boost local economic growth and bring better services to the people who need them most. Data collection will also be supportive to better monitoring efforts, which is necessary to review the results of ongoing projects, and provide a basis for future urban actions. For producing local data, national efforts should support subnational statistical offices and their capacities.

Urban Legislation Reform

The New Urban Agenda recognizes the leading role of national governments in the definition and implementation of urban legislation, whilst calling for the participation of other relevant stakeholders. If formulated, monitored and reviewed effectively, urban legislation will enable for more adequate addressing of the urbanization challenges. There is no blueprint for urban legal reform in the OIC cities, because the countries' law-making systems, political contexts and urban challenges differ in significant way. Nevertheless, a framework for basic urban legislation reforms summarized at Figure 7.5 of this report can be a starting point for all the OIC countries.

Strategic Urban Planning

There is a need to improve the practice of urban planning in the OIC cities. Planning responses to rapid urbanization should be strategic, i.e. visionary, participatory, democratically agreed, but also authentic, supportive to history, tradition, identity, resources and specific development goals of a given place. Instead of practicing outdated forms of urban planning, subnational governments are expected to constantly adapt to new local conditions, look for a good practice of other cities and harmonize with global documents. In this context, the training and education of planners need to be re-examined.

It is more cost effective to plan for urbanization by preparing the land and infrastructure before people arrive, rather than trying to repair, redevelop or relocate settlements once they are established. Together with the efforts of planning ahead, governments should ensure that the design of cities is not based on economic and political interests, but rather is people-centred, which means designing a city with and for its people.

Innovative Financing

In many cases, the OIC local governors have a great vision on their cities, and on how they should look like. However, political will and economic power determines design and transformation of cities in real life. In many cases, the OIC cities have a limited financial capacity to develop urban infrastructure. For that reason, improved and innovative financial mechanisms with broader private sector engagement will be necessary to help fill funding gaps. There are plenty of examples of cities all around the world that are using innovative financial mechanisms very successfully, so there is a lot of best practice that can be drawn on.

The New Urban Agenda and the localization of the Sustainable Development Goals is a very suitable occasion for subnational governments to call for better local taxation schemes. Yet, it is important for subnational governments to better manage their budgets, through preparing a transparent annual balance sheet report, which clearly shows the true assets of a city, be they economic, human, or social. Thus, the OIC subnational governments should consider whether they could generate new income sources, through better utilizing the real estate and commercial assets they own. For example, land is one of the most valuable municipal assets and the OIC local governments should have a legal right to use land value capture mechanisms as additional financial tool. These mechanisms follow the logic that enhanced accessibility to new infrastructure, such as mass transit systems, adds value to land and real estate. As this additional value results from public investments, local governments should try to capture the surplus, for example by using taxes or other mechanisms.

The subnational governments should foster investments by creating innovative financial partnerships, such as public-private and multi-stakeholder ones. However, institutional and regulatory reforms are needed to improve the enabling conditions. Enhancing the creditworthiness of cities and enabling their access to capital markets will also be supportive for a city financing.

Intensive Urban Land Use

For cities to be more productive and liveable places, urban land needs to be used efficiently and intensively. The OIC local governments should manage the peripheral expansion of cities, in the interest of more compact cities with higher density that makes the land use more efficient. Development spreading outward at lower density is much more expensive to finance, it produces more inequality for vulnerable and excluded urban populations, and has a much greater effect on natural resources and environmental conditions - largely propelled by the use of the automobile.

Land for different investment activities have to be allocated efficiently, to enable meeting increasing demand for urban land. A lack of clarity over land ownership will discourage the owner from developing the land, at the same time prevent sale to a more productive user.

Upgrading Informalities

The most challenging issue for urban planning and land management is addressing the informalities that arise when the formal housing markets cannot meet the demand. Too often, policy approaches to informal settlements have involved clearing slums and relocating residents to areas far from the city centre. Today, the international consensus increasingly favours in situ upgrading over relocating residents, unless there are not any environmental, safety, or strong public purpose concerns. This shift was motivated by the recognition that clearing slums and relocating residents simply worsens poverty and exclusion.

Wherever possible, existing informal settlements should be formally recognised and upgraded. However, less developed OIC countries should be cautious about applying wealthy world solutions to the housing problems, because in that case the housing price may be prohibitive for poorer urban dwellers. Instead of that, it is crucial to follow a thorough process of collecting information that must be participatory and include engagement with those affected. The solutions for upgrading informalities must come from the affected people, and governments have to provide them with opportunities to put forward their own innovative ideas and preferences, which often are not very expensive. Incremental upgrading of informalities with small projects may be a starting point for many OIC cities.

The key to upgrading informalities is not just to deliver more affordable housing - it is also to make sure that housing is in places that provide plenty of value for residents, including unlocking economic and human potentials of people living there.

Improving Resilience

Environmental sustainability and particularly climate resilience is the area that receives the weakest degree of attention in OIC area. Governments should encourage urban development that reduces resource and energy consumption, and that minimizes pollution and emissions. Governments should also push the cities to improve their disaster management capacities and policy frameworks, thus increase coping and adaptation capacities of cities for an effective and efficient response to and recovery from natural disasters and weather extremes. Chapter 6 of

this report provides some more concrete proposals on how to achieve the desired goals in this area.

Deepening of Partnership and Cooperation

The SESRIC started with preparation of this report, not because it had a clear idea on how to resolve urbanization challenges in the OIC area. Objective was to bring into attention to the OIC and the governments of its member states the importance of sustainable urbanization and encourage creation of a platform for systematic cooperation, thus deepen the OIC urbanization partnerships through collective efforts and concrete actions. For the beginning, the OIC could start with organizing annual high-level specialized workshops on urbanization, with the intention to provide such a platform and enable better use of the existing synergies.

In parallel, the OIC should encourage its member states to rediscover links between the concepts and value systems of Islam and contemporary needs of cities, both ones specifically related to use of land and those related to the issue of human-to-human and human to nature relationship. The SESRIC believe that Islam provides an abstract framework, from which a comprehensive approach to urban sustainability and liveability can be drawn.

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Chapter 1

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STATISTICAL, ECONOMIC AND SOCIAL RESEARCH
AND TRAINING CENTRE FOR ISLAMIC COUNTRIES

Kudüs Cad. No:9 Diplomatik Site 06450 ORAN-Ankara, Turkey
Tel: (90-312) 468 61 72-76 Fax: (90-312) 468 57 26
Email: oicankara@sesric.org Web: www.sesric.org