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FOR A BETTER URBAN FUTURE

The State of Arab Cities Report 2022

تقرير حالة المدن العربية 2022

Financing Urban Infrastructure to Achieve the Sustainable Development Goals and the New Urban Agenda

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FIRST EDITION

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Acronyms & Abbreviations

ADBI	Asian Development Bank Institute
AFD	Agence Française de Développement
AFDB	African Development Bank
AFEX	Africa Exchange
BRT	Bus Rapid Transit
BUTN	Bahrain's Urban Transit Network Project
CA	Cities Alliance
CDS	City Development Strategies
CEO	Chief Executive Officer
CIBAFI	General Council for Islamic Banks and Financial Institutions
COP	Conference of the Parties
COVID-19	Coronavirus Disease
CSP	Concentrated Solar Power
CSR	Corporate Social Responsibility
DRR	Disaster Risk Reduction
DSA	Dubai-Sharjah-Ajman
EBRD	European Bank for Reconstruction and Development
EGP	Egyptian Pound
EIB	European Investment Bank
ESCWA	Economic and Social Commission for Western Asia
ESG	Environmental, Social and Governance
EU	European Union
EUR	Euro
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
GAM	Greater Amman Municipality
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GEA	General Entertainment Authority
GEM	Grand Egyptian Museum
GHG	Greenhouse Gas
GIH	Global Infrastructure Hub
GIS	Geographic Information System
GIZ	German Agency for International Cooperation
GNA	General National Accord
GNC	General National Congress
GNU	Government of National Unity
GPS	Global Positioning System
ICLEI	International Council for Local Environmental Initiatives
IDA	International Development Agency
IDI	ICT Development Index
IDMC	Internal Displacement Monitoring Centre
IDP	Internally Displaced Person
IF	Islamic Finance
IMF	International Monetary Fund
ILO	International Labour Organization
IOM	International Organisation for Migration
ISWM	Integrated Solid Waste Management
IRENA	International Renewable Energy Agency
ISDB	Islamic Development Bank
ISDF	Informal Settlements Development Fund
ISIL	Islamic State of Iraq and the Levant
ISIS	Islamic State of Iraq and Syria
ITU	International Telecommunication Union
KSA	Kingdom of Saudi Arabia
LDC	Least Developed Countries
LRT	Light Rail Transit
MENA	Middle East and North Africa
MEP	Ministry of Economy and Planning

MIT	Massachusetts Institute of Technology
MIGA	Multilateral Investment Guarantee Agency
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organization
NUA	New Urban Agenda
NUPS	National Urban Policies
ODA	Official Development Assistance
OECD	Organization for Economic Co-operation and Development
OOF	Other Official Flows
OPEC	Organization of Petroleum Exporting Countries
OPIC	Overseas Private Investment Corporation
PDV	Present Discounted Value
POPS	Privately Owned Public Spaces
PPIAF	Public Private Infrastructure Advisory Facility
PPP	Public Private Partnership
PV	Photovoltaic
PWC	Price Waterhouse Cooper
RE	Renewable Energy
REDF	Real Estate Development Fund
ROAS	Regional Office of the Arab States
SDG	Sustainable Development Goals
SDRPY	Saudi Arabia Development and Reconstruction Program of Yemen
SECO	State Secretariat for Economic Affairs
SEZ	Special Economic Zones
SFD	Social Fund for Development
TGM	Tunis-Goulette-Marsa
TOD	Transit Oriented Development
UAE	United Arab Emirates
UCLG	United Cities and Local Governments
UDF	Urban Development Fund
UITP	Union Internationale des Transports Publics
UN	United Nations
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNDRR	United Nations Office for Disaster Risk Reduction
UNEP	United Nations Environment Programme
UNFPA	United Nations Population Fund
UN-Habitat	United Nations Human Settlements Programme
UNHCR	United Nations High Commissioner for Refugees
UNRWA	United Nations Relief and Works Agency for Palestine Refugees
UPIMC	Urban Planning and Infrastructure in Migration Contexts
USAID	United States Agency for International Development
USD	United States Dollar
WASH	Water, Sanitation and Hygiene
WBG	World Bank Group
WEF	World Economic Forum
WHO	World Health Organization
WIEGO	Women in Informal Employment: Globalizing and Organizing
WMF	World Monuments Fund

Executive Summary

The report consists of seven chapters covering selected issues that currently characterise the Arab region. In chapter one, the report presents the state of urbanisation in the region, with its key drivers and urbanization trends. Chapter two explores a selection of major challenges and opportunities in the region, with an emphasis on their influence on the urban fabric of the region. In chapter three, the status-quo of infrastructure is discussed, highlighting key challenges and shortfalls. The report then presents the need for a paradigm shift in urban infrastructure in chapter four, illustrating emerging infrastructure opportunities that could contribute towards building a more sustainable future for cities. In chapter five, the need for financing infrastructure projects in order to achieve the Sustainable Development Goals and the New Urban Agenda is explored, along with the gaps in the current financial frameworks. Chapter six focuses on the need for stronger multilateral governance to further sustainable development and highlights the financial trends and opportunities which could improve infrastructure development in the region.

KUWAIT
Al Shaheed Park in Kuwait City. © Shutterstock

This includes shifts towards decentralization, maximizing public revenue generation, leveraging private sector-based methods, tapping into international networks, exploring emerging and atypical financing mechanisms, and elevating the role of participatory approaches in the planning process to ensure that no one gets left behind. Based on the findings of this report, chapter 7 synthesizes and summarizes a number of key recommendations at the regional, national and city level. Key takeaways from each chapter have been summarized below.

Chapter 1.
Urbanisation in Times of Turbulence

Cities in the Arab world are transforming at a rapid pace. More than half of the region's population already resides in urban areas, and this number is expected to continue to grow in the coming years. In certain countries, regional conflicts and the effects of climate change are exacerbating these trends, resulting in displacement and transnational migration. The effects of these regional trends are manifesting themselves at the city and neighbourhood scale, and it is consequently at the local level that many of these concerns and challenges will need to be addressed. While cities represent places of opportunity, growth, and innovation in the Arab region – especially for the diverse and youthful population – the true benefits of urbanisation will only be experienced if properly managed at both the regional and local levels.

Highlights

- In order to address issues in the Arab region, a local as well as regional perspective must be adopted. Each city faces a unique set of circumstances, but a cohesive strategy and partnership by subregion or region can help municipalities see a broader view of local issues.
- Migration (internal and international) plays a large role in the urbanisation process in the Arab region; however, it can take on varying forms including internal displacement, refugees (conflict and climate), labour migration and so on. The pressures of migration can intensify the growth of cities, placing considerable strain on existing infrastructure. To respond effectively, special considerations must be given to the causes and consequences of migration.
- If it is properly managed and migrants are given opportunities and an adequate standard of living, migration can support the transition towards sustainable urban development, both for host and origin cities.
- Support and opportunity for the large and growing youth population must become a central component of any urban development strategy in Arab cities.

Chapter 2.
Unfolding Urban Challenges in Arab Cities

This chapter investigates the challenges associated with urbanisation in Arab cities, including economic, social and financial. While some of the most disruptive challenges facing Arab cities are being experienced globally (ie. COVID-19, climate change and poverty to name a few), others are more localised and will vary greatly across the region (ie. conflict, governance, and so on). Regardless of the circumstances, national and local governments have a historic occasion to respond to these challenges to enhance cities as places of promise and opportunity. Depending on the choices made, important urban development and management decisions will be key to addressing or exacerbating, key challenges related to conflict, natural disaster, climate change, gender discrimination, poverty, and inequality.

Highlights

- The Arab region will be one of the region's most strongly impacted by climate change. With water and food scarcity and extreme heat already prevalent in the region, it will be key for Arab cities to find ways to equitably mitigate and adapt the impacts of the changing climate on their citizens and enhance overall resilience in their communities.
- Conflict and wars in the last decades have also had a large impact on many parts of the Arab region. Careful and intelligent strategies must be devised by Arab cities to manage and finance post-conflict recovery, guided by the goals of sustainability and resilience.
- The COVID-19 pandemic revealed structural gaps in terms of urban infrastructure in the Arab region. Countries and cities can harness long-term recovery strategies to innovate and build more sustainable and smart urban systems.
- In several countries throughout the Arab region, the management and financing of urban projects is in the hands of central governments. This results in limited cohesion and collaboration among different levels of government, and consequently a lack of autonomy for local leaders who are often in the best position to respond to the needs of their residents.

Chapter 3.
State of Urban Infrastructure in the Arab Region

The state of urban infrastructure in Arab cities is very diverse. Slums and informal settlements coexist with ground-breaking urban megaprojects, ancient cultural heritage sites with modern skyscrapers, high-quality public spaces with high levels of privatisation and for-profit land management. In Chapter 3, the broad and varying state of existing urban infrastructure in Arab cities is explored, with a focus on social as well as physical infrastructure. In the physical urban realm, mobility infrastructure, housing stock, public space, and heritage sites are discussed. The chapter also delves into digital infrastructure, the revolutionary role of data and concerns around its management.

Highlights

- Socio-economic challenges are reflected in the often-contradictory nature of urban development, including low income and vulnerable populations being relegated to slums and informal settlements, while exclusive neighbourhoods and new developments are being built.
- Small-scale, punctual neighbourhood interventions are deprioritised in favour of large-scale projects which are often costly and restrictive. Gentrification and lack of affordability are increasingly becoming unintended effects associated with interventions on public space, housing and cultural heritage in most Arab cities.
- Investment in social infrastructure, focusing on the construction and maintenance of facilities that support social services have a high potential to improve quality of life. Unfortunately, they often lag behind when compared to large-scale urban infrastructure projects, such as transportation and utilities.
- The COVID-19 pandemic laid bare the gaps and differences in social, physical and healthcare infrastructures in the Arab cities. To reduce poverty and inequality, provide adequate housing and strengthen social protection while rebuilding from the pandemic, cities should lead the move towards a new set of social norms between governments, the public, civil society and the private sector.

Chapter 4.
A Paradigm Shift in Infrastructure Development

As the world changes rapidly in the face of global challenges (environmental crisis, pandemics, conflicts and technological transformation), cities must remain agile in order to respond and adapt. Historically, Arab cities have lagged behind other regions with regards to sustainable infrastructure; with wealthier cities choosing to invest in expensive megaprojects and high-tech satellite cities rather than small scale interventions that may make the people better off in the long run. The focus of this chapter is twofold. First, to assess the need for a reprioritization of human quality of life and environmental sustainability over large scale and exclusive profit-seeking interventions. Secondly, to explore how emergent technologies and innovations can contribute to a more sustainable and equitable shift in urban infrastructure, building on the potential of local-level data and informed decision-making processes.

Highlights

- The global challenges of climate change, the pandemic, and changing technology all challenge the ways in which cities must provide for their citizens. New technologies, visions and strategies are emerging to overcome these challenges, and need to be incorporated in the Arab context. People-centred approaches should be at the forefront of urban development and infrastructure provision.
- Innovation and smart city approaches are beginning to emerge in Arab countries and may offer comprehensive opportunities to promote sustainable urban planning and development. In the context of increasingly "smart" cities, data collection and management will be key to implementing new solutions to improve the Arab urban realm. This will rely on the cooperation of governments and private companies, which continue to hold more and more power over the data of urban citizens.
- The growth of the sharing economy represents an untapped potential asset for empowering citizens in the Arab region, but only if it is managed in a way that benefits service providers and users alike. The effect of the sharing economy, overall, will depend on intelligent, careful and informed decision making at the city level.
- Technological solutions can only go so far in achieving equitability, sustainability and resilience in Arab cities. Low-tech, small scale, and locally based urban planning strategies will represent an important part of the paradigm shift and should not be overlooked. Moreover, the education and role of the urban planner in the region must be elevated to ensure that urban development occurs in line with this new paradigm. In addition, local governments must invest in effective stakeholder engagement if they are to ensure that urban development will benefit all in an inclusive and equitable way.

Chapter 5.
Localising and Financing the SDGs and NUA in Arab Cities

With the Sustainable Development Goals (SDGs) and New Urban Agenda (NUA), cities and countries around the world have a roadmap for sustainable development on multiple scales. While progress has been achieved on many fronts, the overall status of SDG implementation puts most countries and cities out of reach of the intended 2030 deadline. In order to course-correct, it is key that Arab cities embrace the SDGs and NUA fully in their urban development strategies focusing on clear goals and supportive financing strategies to achieve them. Addressing important issues such as data shortfalls, corruption, poor urban management, and conflict will be key. Some potential financial strategies to combat these issues (both emerging and long-standing) are laid out in this chapter.

Highlights

- The implementation of the SDGs and the NUA is lagging behind in many countries and cities in the Arab region. Informed, planned and appropriate financing strategies can contribute to change the pace and put cities on a positive trajectory to achieve progress in these areas.
- The proactive planning and monitoring processes, spurred on by the implementation of the SDGs, highlights the need for data-driven practices and informed decision making in Arab cities. This also involves taking stock of the real assets held by local governments, which need creative and tailored methodologies to be properly quantified. Decentralisation and empowerment of local governments has benefited urban planning practices and yielded positive results in the improvement of living conditions in cities and communities. Cities and local governments are usually better positioned to understand local challenges and opportunities to meet the needs of their people.
- Financing urban infrastructure will require multiple and concurrent sources and approaches. Creative and inclusive financial strategies will provide opportunities for the financing of infrastructure projects which can bring Arab cities closer to their sustainable development targets.

Chapter 6.
The Case for Strengthened Multilateral Financial Frameworks in Arab Cities

Progress in the areas laid out in this report will depend on enhancing multilevel governance for urban infrastructure provision. The management of infrastructure provision on a national level with limited and sometimes non-existent involvement of local governments has hindered the ability of cities to innovate and contribute to meaningful change. This chapter explores the capacity of local governments to take the lead in the development and financing of urban infrastructure with the right level of support from national governments and by fostering cooperation with other cities at national and regional levels.

Highlights

- Empowerment of local governments to develop and finance urban infrastructure will depend on effective multilevel governance systems that ensure the right level of support from national stakeholders, while at the same time securing appropriate capacity and expertise is being built at the local level.

- With increasing autonomy, it will be crucial for cities to connect via new and established networks to better share resources, knowledge and data, including localised and disaggregated sources of data.
- Financing urban infrastructure will require multiple and concurrent sources and approaches. Innovative financial strategies such as public private partnerships, green bonds, tax reforms, Islamic finance, and international aid all provide opportunities for the financing of infrastructure projects which can bring Arab cities closer to realizing their sustainable development targets.

Chapter 7. Recommendations

The Arab region is far from being uniform. It encompasses a multiplicity of countries and cities with widely diverse socio-economic contexts, financing capacities, infrastructure stocks and investment deficits and needs. They urbanise differently and situate at different stages of development, economic growth and welfare.

The findings of this report and the subsequent recommendations, therefore, do not aim to provide a "one-fits-all" solution to accelerate sustainable urban development in all the Arab cities. Instead, it represents a bird's eye view of the key observations and most common and acute challenges facing Arab cities and selected transformative actions to be undertaken by decision-makers and urban stakeholders in the region that are tailored to their specific contexts to achieve social inclusion, urban resilience and sustainability. Based on the findings of this report, this chapter synthesizes and summarizes a number of important recommendations at the regional, national and city level.

TUNISIA
Tunisia. © UN-Habitat

Introduction

The *State of the Regions' Cities Report* series started in response to a request by the UN-Habitat Governing Council to prepare analytical reports that reflect regional specificities in achieving the development of sustainable human settlements. A pilot *State of African Cities Report* was launched in 2008, which included the Arab cities in that region. Upon specific request UN-Habitat subsequently expanded the series with similar reports on the Asia/Pacific and Latin America/Caribbean regions for 2010 and Arab Cities in 2012. The regional state of the cities reports aims at analysing the state of urbanisation, depicting major regional urban conditions, trends and impacts, and identifying obstacles towards achieving sustainable urban development. They do so through monitoring, analysing and reporting on existing and emerging trends, while explaining the underlying realities faced by urban policy makers. Since then, individual countries have also begun to prepare their own State of Cities Reports including Syria, Saudi Arabia, Lebanon and Yemen among others.

The overriding aim of the reports is to produce a critical mass of normative regional knowledge with a view to: (a) provide a better understanding of the challenges and opportunities facing urban areas to guide national and local urban development strategies in broader (international) geographical contexts; (b) enhance shared urban prosperity and inclusive urbanisation for the benefit of all; and (c) promote strategic and timely responses to existing and emerging urban trends using baseline data to provide evidence-based analytical foresight.

A secondary objective is to enable better-informed urban decision-making and policy formulation capacities, targeting the regional, sub-regional, national, and local levels, with a particular focus on trans-boundary territorial, socio-economic and other interventions. This is to promote cooperation among domestic and international city clusters and networks while unlocking spatial, economic, infrastructural, and other cooperation opportunities.
A tertiary objective is to improve the overall understanding of the role of cities as the: (a) socio-economic and geographic habitat of a growing majority of the global population; (b) domestic economic nodes with local, national, regional, and global outreach; and (c) generators of livelihood opportunities and wealth, including key socio-economic risks and notable forms of inequality and exclusion.

Cognisant of the regional state of the cities reports' roles in region-wide benchmarking, trend identification and policy-setting, UN-Habitat is pleased to further expand the report series in the Arab region with this second report titled *'The State of Arab Cities Report 2022: Financing Urban Infrastructure to Achieve the Sustainable Development Goals and the New Urban Agenda'*. The first SACR was issued in 2012, a decade before this report, which was a challenging period in the history of the region, and at the same time, it has witnessed a rapid transformation in many areas.

The overall objective of this report is to investigate the challenges encountering the urban economic and financial frameworks of Arab countries at the regional, national, and local levels, including how they have been impacted by COVID-19 and the prospects to unleash their endogenous growth potential and stimulate their prosperity. The report contributes to informed post-COVID recovery and building back better, the implementation of the 2030 Agenda for Sustainable Development, the promotion of the Sustainable Development Goals – with a focus on Goal 11 – and the application of the New Urban Agenda in the Arab region, by encouraging evidence-based urban policies to improve living conditions for city dwellers in Arab countries. In addition to this, it will further expand the Addis Ababa Action Plan of development financing as a foundation for policy guidance towards successful local financing in the different Arab sub-regions.

In a region where urbanisation is progressing rapidly, the promotion of broad-based, locally driven, sustainability-focused, and inclusive policies is imperative to enable Arab cities to grow in an inclusive, safe, resilient, and sustainable manner. Many Arab governments have already adopted policies to induce greater spatially balanced economic development through establishing peripheral industrial and economic zones, new towns and development corridors connecting existing growth nodes to backward regions to improve their access to jobs and services and reduce regional disparities.

In poorer countries, slums and informal settlements have grown and are set to double in size over the next decade. The dizzying pace of informal growth frustrates planners, administrators, and politicians. Yet what is a 'slum' to some is a pragmatic bid for the good life to others, and a step in a tangible direction that hopefully lies beyond slum life for their children. What is considered a slum or an informal settlement in some Arab countries, such as Lebanon, in addition to identifying geographic boundaries of such areas, has to date no clearly agreed upon definition or interpretation by practitioners and authorities, thereby complicating targeted approaches to alleviate living conditions and general rights to adequate housing.

In addition, due to their higher densities and higher rates of mobility, cities are disproportionately affected by pandemics and tend to aid in their spread. COVID-19 is an example of how cities are vulnerable to such crises, especially in the global south, where the capacities of infrastructure and health care services are not always capable of facing such situations. The outbreak of COVID-19 exacerbated challenges in the region. Projections of the impact of COVID-19 suggest that in some countries experiencing conflict, the overall economy shrank by as much as 13 per cent, driving the estimated number of people living in poverty up to 115 million, or one quarter of the Arab population. Key to recovery is the active and inclusive participation of local government and urban communities. They are best positioned to understand how the effects of such a crisis plays out at the local level, revealing important fault lines and understanding the needs of the most marginalised groups in society. Guided by the SDGs and the NUA as important frameworks for recovery, cities can identify priority actions to respond to local needs and contexts in order to address urban inequalities.

Cities are the drivers of economic growth and places of social upward mobility. The Arab region is one of the fastest growing regions in the world by population (and its urban share). More populations in cities implies greater opportunities in delivering services to households and individuals at scale and at lower marginal costs. Unfortunately, this opportunity is not being maximised. In attempts to remedy this, several countries have moved towards decentralisation. Yemen, Morocco, Jordan, and Lebanon are examples of countries that have taken steps to establish local governments or devolve power to existing municipalities.

Decentralisation has been strongly pushed for in Lebanon for many years, and there is even legislation to support it. Despite the fact that Lebanon's municipalities are legally independent of the central level, their dependence on the system as a whole remains substantial. The extent of power devolution has been limited to service delivery and municipal operations management. Fiscal powers, on the other hand, still reside with the central or provincial governments.

To progress the development process forward, new frameworks for financing infrastructure must be introduced in many of the region's countries. This includes shifts towards decentralization, maximizing public revenue generation, leveraging private sector-based methods, tapping into international networks, exploring emerging and atypical financing mechanisms and elevating the role of participatory and gender-responsive approaches in the planning process to ensure that no one gets left behind.

Achieving progress in the areas laid out in this report will require enhancing multilevel governance over urban infrastructure provision. The management of infrastructure provision on a national level with limited or no deferral to local governments has hindered the ability of cities to innovate and contribute to meaningful change. Local governments can take a more active role in the development and financing of urban infrastructure, if provided with the right level of support from national governments, effective regulatory systems and capacity enhancement at the local level.

01

Urbanisation in the Arab Region: Between Governance and Sustainability at a Time of Turbulence

Introduction: Urbanisation in Arab Cities

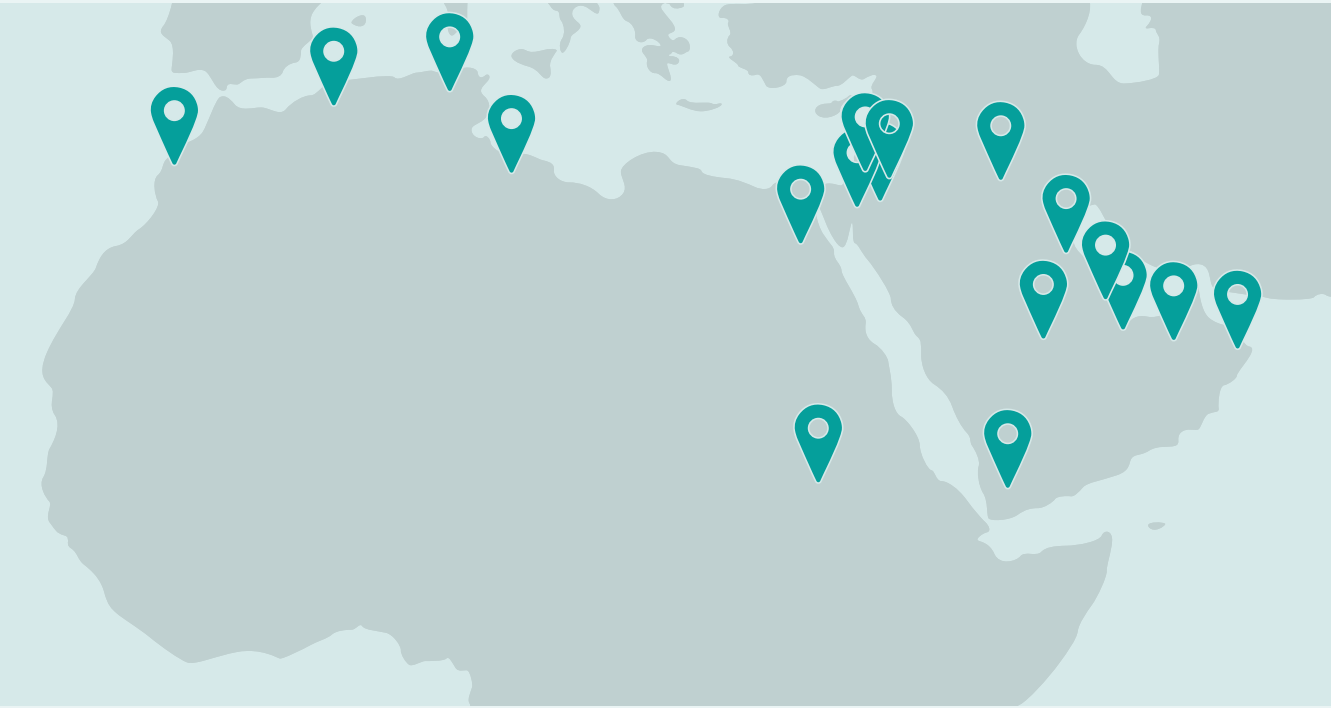
Cities in the Arab world are transforming at a rapid pace. More than half of the region's population already resides in urban areas, and this number is expected to continue to grow in the coming years. In certain countries in the region, regional conflicts and the effects of climate change are exacerbating these trends, resulting in displacement and transnational migration. The effects of these regional challenges are being played out at the city and neighbourhood scale, and it is consequently at the local level that many of these concerns and challenges will need to be addressed.

UAE
Dubai International Expo 2020 People visiting at the day. © Shutterstock

The Arab Region consists of 22 member countries that belong to the League of Arab States .[1] Throughout the report, the Arab region will be structured based on its geographic location into the following subregions:

1 The league of Arab states currently has 22-member states: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordon, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestinian Authority, Qatar, Kingdom of Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates and Yemen.

Figure 1. Map of countries in the Arab Region



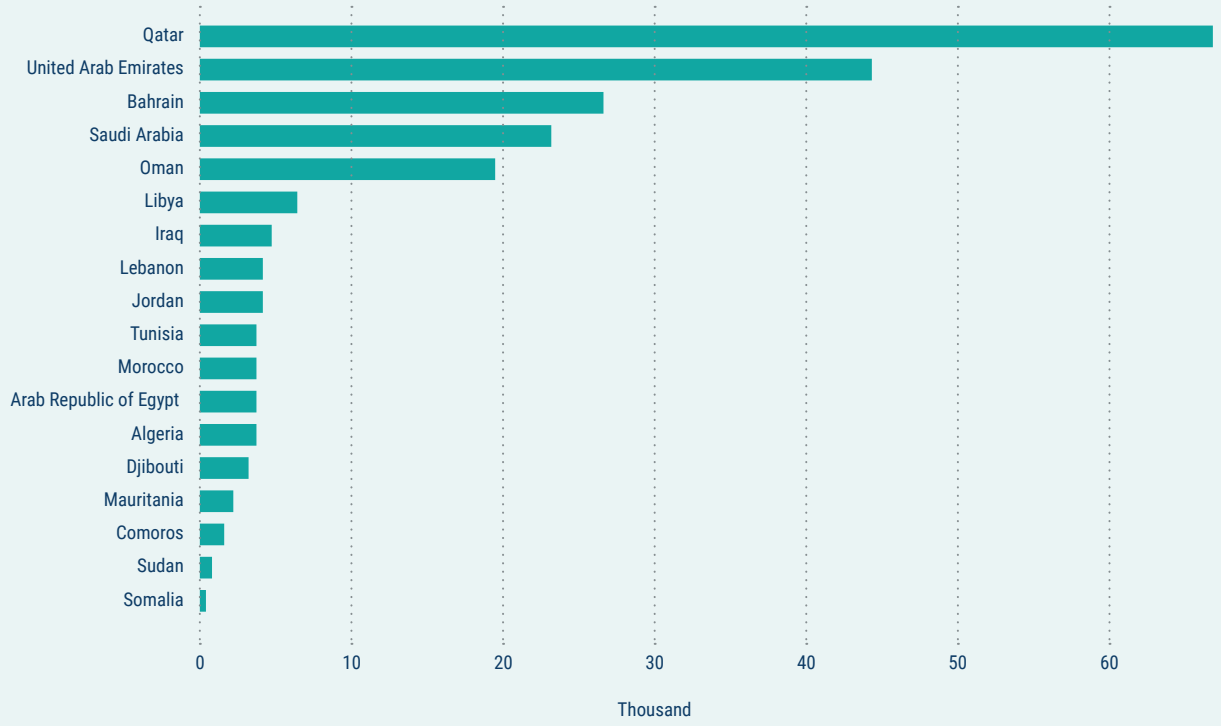
Source: UN-Habitat, 2012

- **Mashreq** *(Egypt, Iraq, Lebanon, Jordan, Palestine, and Syria)*
- **Maghreb** *(Algeria, Libya, Morocco and Tunisia)*
- **Gulf Cooperation Council (GCC)** *(Bahrain, Kuwait, Oman, Qatar, Kingdom of Saudi Arabia and the United Arab Emirates)*
- **Countries of the Southern Tier** *(Comoros, Djibouti, Mauritania, Somalia, Sudan, Yemen)*[2]

Despite this attempt to classify, the sub-regions themselves remain equally as diverse. While economically, Mashreq and Maghreb are considered stable middle-income countries, Lebanon is a special case. Geographically it belongs to the Mashreq region, while economically it is a country in severe social, economic and political crises. The GCC countries, on the other hand, are high-income countries. The economy of the GCC region accounts for a significant proportion of the region's economy as a whole. While initially dependent on oil production and hydrocarbon exports, in recent years, it has started to show signs of diversification with new sectors on the rise. The GCC significantly impacts the entire region through the wealth it generates and through labour utilisation and therefore has positive impacts on the Arab region as a whole. Southern Tier countries are the least developed of the region, with limited economic resources. The other sub-regions account for everything in between. Figure 1 provides a geographical overview of the Arab Region, while Figure 2 illustrates the socioeconomic diversity of the region. When measured by GDP per capita, Qatar registering a per capita GDP of USD$66,838 ranks the highest, while Somalia recording a per capita GDP of USD$447 ranks among the lowest. Income is one of many extreme imbalances in the region.

2 Where necessary, additional groupings, such as those countries experiencing conflicts, are collectively referenced.

Figure 2. Arab countries by GDP Per Capita in 2021 (current USD$)



Source: World Bank, 2021.
Note. No data available on Palestine and figures for Sudan do not include South Sudan

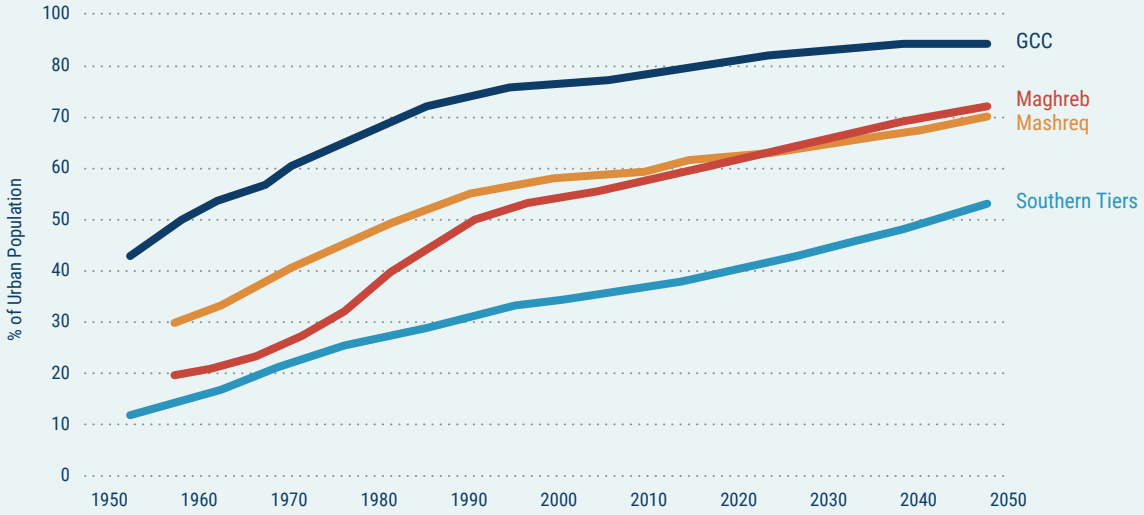
According to the World Bank, the Arab region is home to 444.5 million inhabitants,[3] representing 5.6 per cent of the world's population.[4] By 2030, it is expected that the overall population of the region will reach 521.5 million inhabitants. While the population size of the countries differs considerably, four countries collectively make up around 50 per cent of the population of the total Arab region. Egypt with 104.3 million inhabitants and Iraq with 41.2 million, both lie in the Mashreq subregion, while Algeria with 44.6 million is located in the Maghreb subregion and Sudan with a population of 44.9 million is in the Southern Tier.

On the other extreme, the region includes the country of Comoros with a population of less than one million (also in the Southern Tier).[5]

In terms of urbanisation, the Arab region is already highly urbanised. Currently, the urban population of the region, accounts for approximately 60 percent of the total population, while the rural population accounts for the remaining 40 percent.[6] Forecasts suggest that this figure is expected to rise to 62 percent by 2030.[7] Figure 3 provides a more detailed breakdown of the proportion of the Arab population in Arab states by sub-region between 1950 and 2050.

3 World Bank, 2022a.
4 Arab Development Portal, 2022.
5 World Bank, 2022a.
6 World Bank, 2022a.
7 UNDESA, 2018a.

Figure 3. Proportion of the urban population in Arab States by sub-region, 1950-2050



Source: UNDP 2022.

Figure 4. Percentage of total urban population in the Arab world, 2021

Country	Most Recent Value
Arab World	59

Arab World

Country	Most Recent Value
Algeria	74
Bahrain	90
Comoros	30
Djibouti	78
Egypt, Arab Rep.	43
Iraq	71
Jordan	92
Kuwait	100
Lebanon	89
Libya	81
Mauritania	56
Morocco	64
Oman	87
Qatar	99
Saudi Arabia	85
Somalia	47
Sudan	36
Syrian Arab Republic	56
Tunisia	70
United Arab Emirates	87
West Bank and Gaza	77
Yemen, Rep.	39

Source: World Bank, 2022a.

As can be seen, the GCC countries are the most urbanised in the region with more than 80 per cent of their populations on average residing in urban areas. This is followed by Maghreb and Mashreq, both of which are approximately 60 per cent urbanised, and then the Southern Tiers region which remains less than 50 per cent. At the country level, the country with the highest urban population is Kuwait at 100 per cent, while the country with the lowest is Yemen at 39 percent. This can be seen in Figure 4, which depicts the percentage of urban population in the Arab world by country for the year 2021. It is worth noting that the countries with higher levels of urbanisation are also the countries that are more economically prosperous, underscoring the inherent relationship between urbanisation and economic growth. It is expected that by 2050, all of the countries in the region will have more than 50 per cent of their populations residing in urban areas.[8]

The above provides a brief snapshot of the geographic and socioeconomic diversity within the region. It also underscores the extreme imbalances when it comes to the level of development. With that said, the quickly expanding urban population of the Arab region represents both a challenge and an opportunity. The remainder of this chapter investigates different characteristics of urbanisation in Arab cities, including the underlying drivers of urbanisation and existing and emerging trends that are currently shaping its cities.

Key Drivers of Urbanisation

Urbanisation in the Arab region is driven by several forces, which include natural population growth, rural to urban migration and reclassification of rural areas as urban. These factors are further underscored by complex social and economic dynamics such as forced displacement and labour force migration to name a few. It is worth noting that the COVID-19 pandemic has significantly disrupted the economy and further entrenched socioeconomic disparities. It has also had a considerable impact on population and migration patterns.

Demography and Rapidly Growing Populations

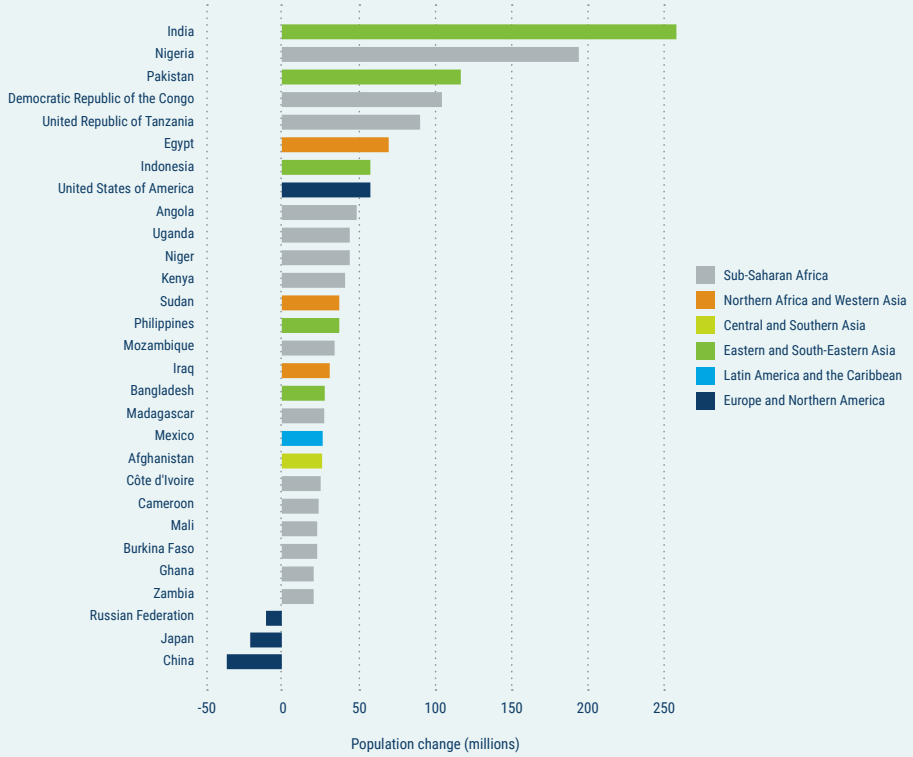
As previously mentioned, the region stands in a high position when it comes to the absolute size of the population as well as the percentage of the population living in urban areas. As can be seen in Figure 5, Egypt, Sudan, and Iraq are among the list of the top countries that are expected to contribute the most to the world's population growth between 2020 and 2050.[9] This will notably have an impact on the urbanization trajectory of the Arab region as a whole.

Globally, notable changes have occurred in fertility and mortality patterns in recent years. According to the data, fertility in the Arab region has declined from 5.2 children per woman in 1990 to 3.1 in 2020.

8 UNDP, 2022.

9 UNDESA, 2021.

Figure 5. The largest increases and decreases in population by country (2020-2050) (millions)



Source: UNDESA, 2021, page 33 **Note.** The figure depicts countries that are projected to add 20 million people and more and those projected to reduce their population by 10 million people or more, between 2020 and 2050.

Despite this, the Southern Tiers countries far exceed the world average of 2.3 births per woman with Mauritania accounting for 4.4 births and Somalia accounting for 5.9 births per woman. Alongside the decreasing rates of fertility, life expectancy is also on the rise (72 years in 2020).[10] Currently there are 27 million people aged 60 years or over, with this figure projected to reach around 49.6 million by 2030 and to eventually exceed 100 million by 2050. This coincides with the global trend that is expected to see the world's population aged 60 years or over to double from 962 million today to 2.1 billion by 2050.

Declining mortality, better healthcare, and the significant expansion of the education system has also resulted in a generation of well-educated youth in the region. This, however, coincides with high levels of un and under-employment, and a job market for which their qualifications are ill-fitting. Around one third of the population of the Arab region are under-25, and unemployment is a persistent challenge for several countries in the region. This is felt hardest among the female population. According to a recent study, women's labour force participation rates in the Arab region are only 21 per cent compared to 70 per cent among males.[11] While there is a disproportionate number of women that are not economically active in the region, those that are also have a higher likelihood of working in unprotected and informal work.

10 World Bank, 2022a.

11 ESCWA & UN Women, 2020

Accordingly, research has shown that women constitute approximately 62% of workers in the informal sector in the Arab region.[12] Many females tend to find themselves in low paid and low protected care worker roles. Despite this segment of the population offering the potential for an economic boon, this is not necessarily commensurate with the number of jobs being created.

Migration Patterns in the Arab Region

Migration and movement of citizens within the Arab region takes place in several different forms, ranging from people moving due to economic or social reasons to refugees fleeing war and conflict. In GCC countries, for example, the inward migration that takes place is primarily the result of employment opportunities. This form of migration fulfils the dual benefit of addressing the labour market mismatch in the destination country and results in much needed remittances for origin countries. However, the benefits of migration should not only be seen from the perspective of what migrants can bring to any given territory. The political, social, and economic processes of potential destination countries will also determine how, where and when migration occurs. If migration is poorly governed, it can also negatively impact cities' development. Migrants can be put at risk and hosting communities can come under strain. It is also the case that those unable to migrate (ie. elderly and those with disabilities) are often left behind, further increasing their vulnerability.

Box 1. Migration, good or bad?

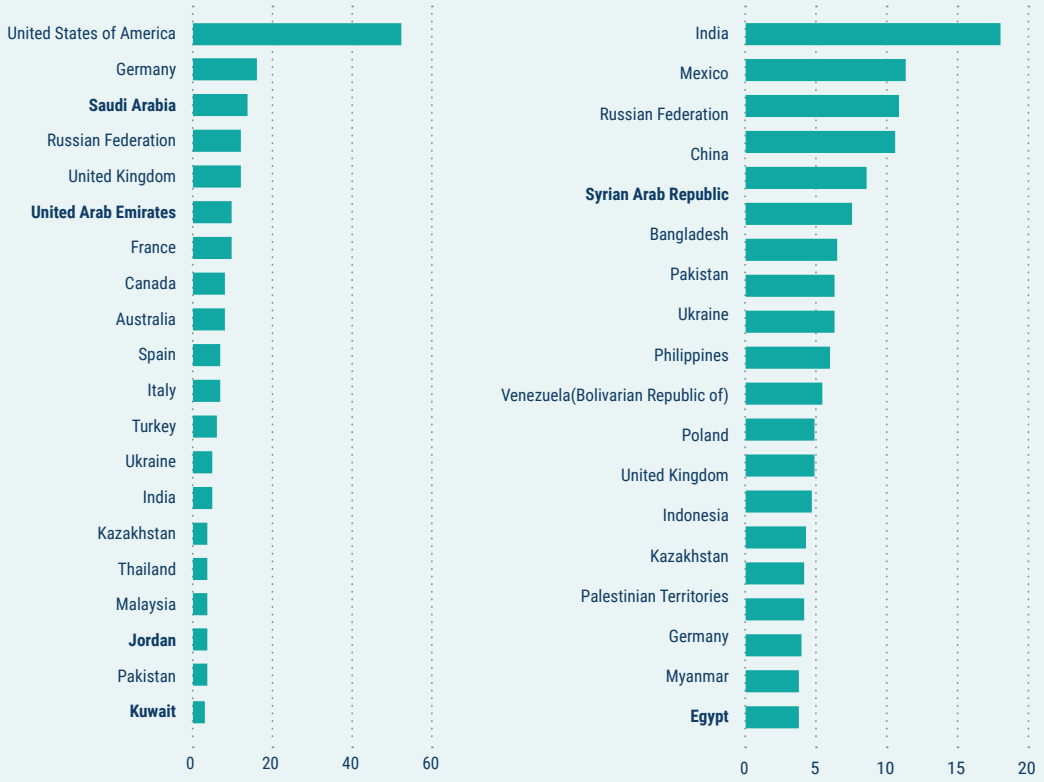
According to the International Organisation for Migration (IOM), Arab cities are the world's leading destination for displaced persons. They host more than 38 million international migrants, 45 percent of the world's refugees and around 16 percent of internally displaced persons.[13] The majority of these people are living in urban areas. The New Urban Agenda, however, specifies that migrants can bring "significant social, economic and cultural contributions to urban life."[14] Naturally, individuals will do what it takes to improve their wellbeing including increasing their access to goods, services, education, and economic opportunities. Therefore, the notion that migration needs to be halted is unrealistic. Instead, governments must recognize and seek to capture the social and economic benefits that migration presents through inclusive policies and effective urban infrastructure.[15]

As can be seen in Figure 6, which depicts the top 20 destinations and origins of international migrants in 2020, three GCC countries (KSA, UAE and Kuwait) alongside Jordan are among the top destination countries, while the Syria and Egypt can be found among the top 20 origin countries worldwide.[16] With approximately 13 million international migrants, Saudi Arabia is the third-most popular destination country after the United States of America and Germany. Syria, with over 8 million people living abroad, ranks 5th among the origin countries, mainly via refugees as a result of the large-scale displacement that has occurred over the last decade.

While there are many reasons one might

12 ESCWA & UN Women, 2020
13 UN-Habitat, 2018a.
14 UN-Habitat, 2017a.
15 UN-Habitat, 2018a.
16 IOM, 2021a.

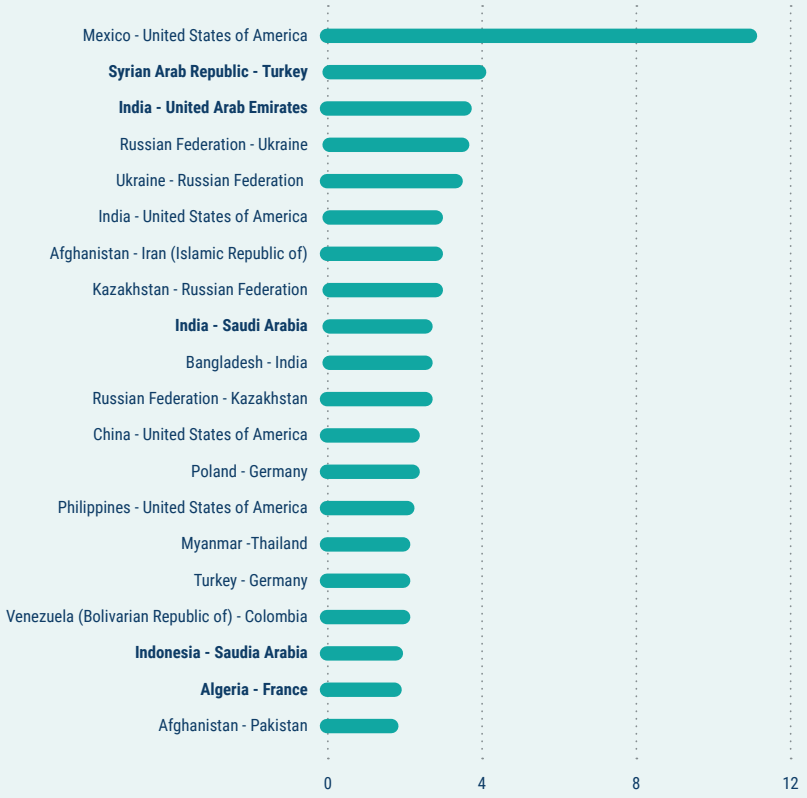
Figure 6. The top 20 destinations (left) and origins (right) of international migrants, 2020 (million)



Source: IOM, 2021a.

migrate, it is often the result of less favourable conditions in the origin country and/or new opportunities for a better future in the destination country. Over time, strong networks and migration patterns emerge. Figure 7 shows the top 20 international migration country to country corridors for 2020. This depicts the situations (both positive and negative) in the destination and origin countries and the relationship/migrant networks established between them. According to this, the largest migration corridor, accounting for approximately 10.7 million migrants in 2021, is between Mexico and the United States, while the second largest corridor, accounting for approximately 4 million migrants, is the Syria-Turkey corridor, which is primarily made up of refugees displaced by the country's prolonged conflict. Additionally, the third-largest corridor, accounting for approximately 3.5 million migrants, is from India to the United Arab Emirates, which is comprised primarily of labour migrants. Other notable corridors which include Arab countries are India to Saudi Arabia, Indonesia to Saudi Arabia and Algeria to France.

Figure 7. The top 20 international migration country-to-country corridors, 2020



Source: IOM, 2021a.

Internally Displaced Persons and Refugees

Unfortunately, population displacement due to war and conflict is a distinct feature of the region. While some countries in the region are still bearing the severe consequences of the seven decade long protracted Israeli-Palestinian conflict, recent political and armed conflicts have emerged or re-emerged in several countries (Palestine, Syria, Libya, Yemen, Iraq and Sudan).

The countries that are most affected by forced migration are in the sub-regions of Mashreq (Egypt, Lebanon, Syria, Iraq and Jordan), Southern Tiers (Somalia, Sudan and Yemen) and Maghreb (Libya).

While refugee populations are more significant in Lebanon, Jordan and Sudan, Internally Displaced Populations (IDPs) are more prevalent in the war-affected countries.

By the end of 2020, the total number of registered refugees was the highest ever with a total of 26.4 million refugees globally, 20.7 million under UNHCR's mandate and 5.7 million registered by the United Nations Relief and Works Agency for Palestine Refugees (UNRWA).[17] Accordingly, in 2021, 59.1 million people worldwide have been internally displaced due to conflict, violence, and disasters.[18]

17 IOM, 2021a.

18 IDMC, 2022.

Internally Displaced Persons

Internally Displaced Persons (IDPs) are victims of different forms of conflict occurring within one's country of residence. IDP's capacity to support themselves are often weakened as a result of being displaced from their homes and being cut off from their resources, way of life and networks. This form of displacement generates unique requirements that must be addressed by IDPs, host communities, governmental organisations, and humanitarian agencies.

More than 60 per cent of the internal displacements recorded worldwide in 2021 were caused by conflict, disasters and violence. The highest figures recorded were in Somalia, Syria, and Sudan, ranking them among the top ten countries for the number of displacements by conflict. Somalia has experienced severe droughts and extremely high temperatures resulting in hundreds of thousands of displaced people. Internal displacement in Sudan increased six-fold to 442,000 people.

SYRIA
Rural Damascus.
© UN-Habitat/
Taimaa Murad

In West Darfur, for example, violence in and around the Krinding camps resulted in 108,000 secondary moves. Large-scale infrastructure, livelihood, and home devastation was a component of attacks against civilians. This significantly reduced the possibility of long-term fixes.

In 2020, the Arab region experienced a decrease in the number of internally displaced people by about half, its lowest in a decade. This decrease was mainly the result of de-escalating conflicts in Iraq, Libya, and Syria. Despite this, there is currently increasing violence in Yemen and protracted conflicts in Gaza.

Box 2. Increases in violent protests and intercommunal violence in Sudan

Displacement can occur in a multitude of ways, including economic hardship, a volatile political environment, conflict over resources and territory and failed attempts to uphold the rule of law. In 2021, Sudan experienced internal displacement that was unprecedented among those previously recorded. The issue has gotten worse, particularly in southern states. Permanent solutions for IDPs will not be found until the country's political, security, and economic problems are overcome. Since then, the national authorities have developed a national strategy on the subject for IDPs, returnees, refugees, and host communities.[19]

Refugees in the Regional Context

By the end of 2021, there were nearly 90 million individuals that were forcibly displaced worldwide; of these, approximately 27 million were refugees.[20] While many of these refugees will have gone to different destinations, Table 1 shows the refugee population by country or territory of asylum for the top 10 destinations in the Arab region in 2021. As can be seen, Jordan is host to more than 3 million refugees, followed by West Bank & Gaza with 2.4 million, Lebanon with 1.3 million and Sudan with 1.1 million.

Table 1. Refugee population by country or territory of asylum in the Arab region, 2021

Country	Number of Refugees
Jordan	3,047,612
West Bank & Gaza	2,400,208
Lebanon	1,328,541
Sudan	1,103,918
Syria	589,542
Egypt	280,686
Iraq	280,072
Mauritania	101,942
Algeria	97,890
Yemen	89,467

Source: UNHCR and UNRWA, 2021. Accessed through the World Bank Indicators Database, World Bank, 2022a.

19 JIPS, October 2021

20 World Bank, 2022a.

Box 3. Refugees in Jordan

Jordan has the second highest share of refugees relative to its population, which equates to 89 refugees per 1,000 inhabitants.[21] Jordan has been a host country for refugees since 1948 when the first influx of Palestinian refugees arrived. The most recent was the Syrian crisis in 2011, which has since seen more than 675,000 registered refugees from Syria seeking refuge in Jordan after being forced to flee their country.[22]

83.5 per cent of the registered Syrian refugees in Jordan reside in urban areas, while the rest live in the three refugee camps. However, not all urban refugees living in camps are considered 'urban' by the UNHCR. The majority of Syrian refugees in Jordan are able to regain their freedom of movement only if a Jordanian sponsor's them through the bailout system or they leave the camp illegally.[23] Jordan is also hosting Yemeni, Sudanese, and Somali refugees.[24]

The world is witnessing a global trend with an increasing number of refugees and IDPs settling in small, medium and large cities. Worldwide, UNHCR figures show that around 60 per cent of total refugees and some 80 percent of IDPs reside in cities. This is due in part to urban areas being comparatively better equipped with sufficient housing, infrastructure, basic services and amenities, then their rural counterparts. In Iraq and Lebanon, urban refugees represent 100 percent of total refugees, while this figure is 99 percent in Egypt and 80 percent in Jordan respectively. This necessitates a paradigm shift in how to address the needs of a vastly dispersed and highly mobile urban refugee population.[25]

Labour Migration and Remittances

One of the main migratory patterns in the area is labour migration. With 13 million migrants, Saudi Arabia has risen to the third-largest destination country worldwide for foreign workers. Foreign workers in Saudi Arabia mainly originate from Asian countries, such as India, Pakistan, Bangladesh, Nepal, Indonesia, and the Philippines, in addition to migrant workers from Arab countries such as Egypt, Jordan, Lebanon and Syria.26 For many of these jobs, the barriers to entry are low, with migrants often filling positions that require them to perform manual labour tasks or care work for elderly and children. Despite this, migrants can also be found in higher skilled positions, frequenting both corporate and health care settings.

While labour migration is usually seen as filling an important void in countries that suffer from labour force shortages, it also presents certain benefits for origin countries as well. International remittances refer to direct financial and non-financial contributions, sent by migrants to their families and communities back home.

21 UNHCR, 2018a.
22 UNHCR, 2022.
23 Nowwar, 2020.
24 UNHCR, 2018a.
25 UNHCR, 2018b.
26 IOM, 2021b.

According to Table 2, which depicts the top countries receiving and sending remittances in 2020, Egypt ranked fifth among receiving nations (up from 8th in 2015), while UAE and Saudi Arabia ranked second and third among sending countries worldwide. Through family support and investment, remittances play an important role in contributing to development and improving the quality of life in migrants' places of origin.

Table 2. Top 10 countries receiving or sending international remittances, 2015-2020 (current USD$ billion)

Top countries receiving remittances				Top countries sending remittances			
2015		2020		2015		2020	
India	68.91	India	83.15	United States	60.72	United States	68.00
China	63.94	China	59.51	United Arab Emirates	40.70	United Arab Emirates	43.24
Philippines	29.80	Mexico	42.88	Saudi Arabia	38.79	Saudi Arabia	34.60
Mexico	26.23	Philippines	34.91	Switzerland	26.03	Switzerland	27.96
France	24.07	Egypt	29.60	Russia Federation	19.69	Germany	22.02
Nigeria	20.63	Pakistan	26.11	Germany	18.25	China	18.12
Pakistan	19.31	France	24.48	Kuwait	15.20	Russian Federation	16.89
Egypt	18.33	Bangladesh	21.75	France	12.79	France	15.04
Germany	15.58	Germany	17.90	Qatar	12.19	Luxembourg	14.20
Bangladesh	15.30	Nigeria	17.21	Luxembourg	11.19	Netherlands	13.92

Source: IOM, 2021a.**Note.** Readapted.

Labour migrants in the Arab region make up approximately 15 per cent (nearly 24 million) of all labour migrants globally (around 164 million). Almost all of them (22.7 million) reside in GCC countries, which became a main destination for labour migrants seeking jobs and higher wages. The population of non-nationals in GCC countries has grown from 8.2 million in 1990 to an estimated total of 29 million in 2019.[27]

During the past few years, the GCC countries have pursued labour nationalisation policies to increase the rate at which jobs are created for nationals. One country that has taken a concerted effort by putting legislation in place is Saudi Arabia, which as part of its Vision 2030 Framework, seeks to increase the proportion of Saudi nationals in the workforce by 2030.

This is supported by the Saudi Nationalization Scheme, a policy implemented by the Ministry of Labour and Social Development, to allocate certain roles to Saudi citizens and other initiatives such as the Human Capability Development Program, which aims to upskill Saudi citizens so that they have the required capabilities to compete. This is done by instilling positive values, developing basic and future skills and enhancing knowledge.[28]

Furthermore, the recent COVID-19 pandemic has had a profound impact on the Arab region and global economy, which has consequently affected the employment market in the region. During this time, opportunities for migrant workers have decreased, including Arab expatriates working in the GCC region.

27 GLMM, 2020.

28 Kingdom of Saudi Arabia, Vision 2030

Given that most of the expatriates in the Arab region have pursued job opportunities to be able to sustain a better quality of life for themselves and their families, these barriers will present major challenges for both the individuals and countries that rely on labour force mobility.

Rural-Urban Migration

One should not just focus on international migration. Domestic migration is the primary source of urbanisation, and it is significantly reshaping the geographic landscape in many Arab countries. The widening rural-urban investment gap represents one of the primary reasons behind the growing migration from agriculture-based rural economies toward urban centres and cities.29 Another reason for rural urban migration in recent years is the effects of climate-change which are linked with the degradation of the environment and natural landscape. For many, particularly those located in arid regions, this has resulted in rising food insecurity. Climate change has a direct impact on unmet socio-economic needs for the locals of affected areas, increasing their vulnerability and thus their motivation for migration.

While rural migration has contributed to urban economic growth, it has also exacerbated problems of informal employment, expansion of slums and informal settlements, environmental deterioration and public health risks associated with overcrowding. The latter of which became particularly prevalent during the pandemic. Such issues become further exacerbated where there is already a low level of infrastructure provision, including inadequate solid waste management, pressure on physical infrastructure and on health and education services. Access to internet is becoming more and more important for integrating into modern day society.

The COVID-19 pandemic demonstrated the importance of digital infrastructure for participating in education and access health care services.

Changing Cities in Changing Times

Driven by a multitude of factors, the character of cities in the Arab region is changing. The acceleration of urbanisation in recent years has been spurred on by several factors including changing demographic circumstances, dynamic migration patterns and the promise of economic opportunity. In order to face the booming population growth, Arab cities are being transformed in both planned and unplanned ways. Whether through expanding slums and informal settlements, sprawling suburbs, or entirely new and smart cities, the new face of Arab cities reflects a strongly urban character.

Conclusions and Takeaways

- Pursuing a Contextualised Understanding of the Drivers of Urbanisation: The patterns of urbanisation vary greatly between the different subregions due to the complex political, social, and economic frameworks under which they operate. On the one hand, it is important to understand the drivers on a regional level, especially for factors that go across borders, as in the case of migrants or refugees. On the other hand, the drivers of urbanisation affect Arab cities in their own unique ways. By pursuing a shared understanding of regional urbanisation patterns, however, each country gains insight and thus new opportunities to plan and manage urbanisation in a more integrated and optimized way.

29 FAO, 2019a.

- **Youth at the Forefront:** Young people represent the future of cities in the Arab world. This is due in part to both the high birth rates and the comparatively young population dynamics. In order to stabilise urban societies, the needs and aspirations of youth have to be considered and fulfilled. This includes fostering education, employment, and the creation of jobs to assure continued social growth, investment, and wellbeing for the people of the region.
- **Migration as a Major Regional Challenge:** While migration occurs across both regional, national, and municipal borders, it is often experienced and managed on the city-scale. Migration can burden infrastructure in destination cities, yet migrants are and always have been crucial to the functioning and livelihoods of urban societies. In the Arab region, IDP numbers and displacement incidences provide important insights about the stability of a country, region or city. In those areas prone to natural disasters, measures need to be taken to decrease the numbers of possible displacements. Where the right opportunities present themselves, labour migration is a good model for the mutual cooperation between countries in the region. GCC countries serve as an important destination for the mobile labour force in the region. The benefits do not just serve the destination country, but also the origin country through the cross-border transfer of remittances.

KINGDOM OF BAHRAIN
Bahrain. © Derasat

TUNISIA
Tunisia. © UN-Habitat

02

Unfolding Urban Challenges in Arab Cities

Introduction: Key Urban Challenges and Opportunities in the Arab Region

Arab cities face several challenges at the local and regional level. The range of these challenges is broad, from regional conflicts to climate change to the recent COVID-19 pandemic. However, owing to their large and growing importance and the benefits that accrue from proximity and density, cities are also the places in which the most significant regional and national challenges are being overcome. Cities and their local administrations have a demonstrated history of creating new opportunities out of previous difficulties and have shown an ability to create a buffer between their urban residents and the impacts of macro level events such as economic and social challenges, conflict, climate risks, and public health pandemics to name a few. This chapter touches upon dynamics related to the most prevalent issues, including conflict, climate change and disaster risk management, food insecurity, ineffective urban governance and poverty and economic inclusion.

SYRIA
Harasta city rural Damascus. © UN-Habitat/ Samer AboAlway

Climate Change and Disaster Risk Reduction

Due to recent societal developments, such as rapid urbanisation, increased poverty and political instability, the Arab region is considered the world's most vulnerable region when it comes to climate change.[30] Furthermore, the resilience of some Arab cities is weakened due to the "ongoing inflow of refugees and countries' already vulnerable infrastructure and limited access to natural resources."[31]

Across the Arab region there are increasing risks to food security, social conflict, productivity, and health. Warming, decreased yearly precipitation, increasing water stress, decreasing agricultural production, and coastal towns at risk of sea level rise are all present in the Maghreb. Moreover, due to growing aridity, water stress and poor levels of transboundary water cooperation, the Mashreq is facing major threats to agricultural and food production. As for the GCC, severe heat, erratic yearly precipitation and rising sea levels are a present concern. Currently, Yemen is considered one of the worst humanitarian catastrophes in the world, with 24 million Yemenis in need of aid, 4.3 million of which have been forcibly displaced, and 2 million children who are not able to attend school.[32]

The average temperature in the Arab region has already increased by 1.5°C over pre-industrial levels, with a projection of a 5°C increase in some parts of the region by the end of the century. The consensus is that rainfall will decline, with the highest drop expected to occur in North Africa, along the Mediterranean Sea.

Extreme climate events are predicted to increase and worsen in the coming years. While the number of disasters globally has almost doubled since the 1980s, in the Arab region the average number has tripled.[33]

Over the last 30 years there have been over 270 disasters in the region, affecting 10 million people and resulting in 150,000 deaths. Displacement, outbreaks of disease, food insecurity, heightened inequality, and socioeconomic deterioration are all factors leading to fragility or increased conflict. This disproportionately affects the most vulnerable groups in society, as they tend to have a heightened exposure to risk and limited safety nets. In this region there were 886,000 disaster-related displacements in 2019 alone.[34] The World Bank estimates that climate change in the Arab region will expose 80-100 million people to water stress and 6-25 million people to coastal flooding by 2025. In the case of Alexandria, Egypt, for example, a 0.5 m rise in sea level would leave more than 2 million people displaced, with losses of $35 billion in land, property and infrastructure.[35]

Unfortunately, some of the countries in the region are not able to cope with the existing threat of climate change. For example, water stress caused by climate change and reduced precipitation is already or expected to affect Iraq, Jordan, Lebanon, Somalia, Syria and Yemen; countries that are at the same time directly or indirectly being affected by conflict. The risk is that this is expected to further exacerbate the socioeconomic conditions in these countries.

30 GEF &UNDP, 2018.
31 ESCWA, 2017.
32 Ibid.
33 UNDRR, 2021.
34 Ibid.
35 ESCWA, 2017.

In the Arab region, state, community, and individual capacities to prevent, prepare for and cope with the effects of climate change and natural disasters have been significantly weakened by fragility and conflicts. Between 2009 and 2019, floods caused 64 per cent of total disaster displacement in Arab countries. According to models developed to determine the risk of displacement, the most affected countries include Sudan, Iraq and Somalia, with those most at risk areas being located in urban and peri-urban areas.[36] The likelihood of displacement has to do with the provision of infrastructure including inadequate drainage, informal urban expansion and lack of absorption capacity among others. Refugees and IDPs are the most vulnerable, as they do not have a secure living environment and are often forced to live in dangerous conditions. Natural disasters in the conflict zones create complex crises, as governments are often not prepared to deal with them. Despite this, the outcome of these disasters will require harnessing the opportunity for sustainable recovery and reconstruction based on the principles of 'building back better'. Moreover, multi-stakeholder engagement is needed for building urban resilience, including central and local governments, city leaders, local communities, the private sector, civil society, NGOs, and academic and research institutions. This would ideally enable an environment for an efficient urban governance system capable of building resilience in cities and urban areas.[37]

To address the risks and vulnerabilities facing Arab cities, it will require the preparation of effective policies and planning strategies as well as post disaster assessments. As a consequence of the heightened vulnerability, all countries in the Arab Region have signed on to the Paris Agreement on Climate Change and the Sendai Framework on Disaster Risk Reduction (DRR). To be effective, however, these policies and principles will need to be integrated into all development plans at both local and national levels. Some positive examples already exist. In Dubai, for example, there is an institutional framework that enables stakeholders to assess risk and direct resources for DRR. Moreover, Aqaba in Jordan has integrated the risk of flooding and earthquake mitigation into their land-use planning and development plans. In Amman, the Greater Amman Municipality collaborated with UN-Habitat to develop a project around strengthening social stability and resilience of vulnerable groups in Jordan (Box 4). Ain Draham in Tunisia has used a framework of partnership between the private sector and NGOs to govern flood risks, while Lebanon has created a flash flood risk assessment of the entire country and created recommendations for urban planning.[38] In Palestine, Nabulus city carried out a resilience stock taking using the Disaster Resilience Scorecard for Cities and worked with local governments and non-government partners to develop local disaster risk reduction strategies.

36 UNDRR, 2022
37 ESCWA, 2017.
38 Ibid.

Box 4. Innovative Approaches to Enhance the Resilience and Social Stability of Vulnerable Communities in Amman

In response to the unpredictable and growing threat of flash floods, UN-Habitat Jordan, in collaboration with the Greater Amman Municipality, has implemented the project 'Strengthening the Social Stability and Resilience of Vulnerable Jordanian Communities and Syrian Refugees in Amman against Flash Floods' to address the urgent needs stemming from flash floods and other climate-related risks.

This project followed an integrated approach against flash floods, which began with the 'Flood Risk Assessment and Flood Hazard Mapping of Downtown Amman' Study that identified 120 flood hotspots for emergency action. Innovative tools were used to meaningfully engage local communities and institutions, such as the City Resilience Action Planning Tool, capacity building, vocational training, and awareness-raising initiatives, all of which established the shared responsibility of all stakeholders to proactively adapt to and mitigate the impact of risks and disasters.

Based on these studies and stakeholder participation, UN-Habitat implemented Sustainable Urban Drainage Systems (SUDs) as pilot projects. These include the Al-Zohour Green Triangle, water harvesting systems, and household rain gardens, which demonstrate sustainable, replicable, and scalable green solutions to reduce the impact of flash floods while simultaneously addressing water scarcity needs as a longer-term investment.

A number of Arab regional initiatives, mechanisms, committees, programmes, and institutions have also been created. Efforts have been geared towards better information sharing and increasing the knowledge base, establishing coordination mechanisms to support governance, policy and capacities. Despite this, serious gaps remain, including weak capacities that have implications on the integration of risk considerations in urban planning, limited financial resources for both disaster risk reduction and climate change adaptation. Still, the topic of climate change remains a lower priority for some governments, while the mandate for climate change remains sectoral as few countries have established national level committees or councils for multisector coordination on climate change adaptation.[39]

As can be seen, in response to the challenge of climate change, proactive cities are already beginning to develop plans for environmental sustainability. This has spurred on the proliferation of sustainable technologies, such as renewable energy, which is expected to provide an opportunity for energy and financial independence for many Arab cities, while simultaneously meeting the growing energy demands.

39 UNDP, 2018b.

Wars and Post War Reconstruction in Conflict Countries

The Arab region is one of the most heavily conflicted and fragile areas in the world. A fifth of the population of North Africa and the Middle East region are living near a major conflict area. In 2020, 63 per cent of the region's population, or 266 million people, are deemed to be living in countries with high risk of humanitarian catastrophe; 6 of the 20 most fragile countries globally are located in the region.[40] Conflict in the Arab region has been ongoing since the First World War until present day. Consequently, providing basic infrastructure has become a major priority to improve the economy and quality of life for those who have been affected.

In March of 2011, the so-called Arab Spring movement began with mass protests in Syria. This eventually led to an armed conflict between the government and an opposition that was made of rebels and a defected army. With the conflict raging on in 2014, the extremist militant group ISIL began to spread across Syria. This forced the Syrian government, the Opposition, the Syrian Democratic Force to fight against ISIL, eventually expelling them from Syria in 2018.

As of 2022, more than half of the population has been displaced internally and into neighbouring countries.[41] More than 6.2 million people have been displaced by the conflict in Syria, with more than 5.7 million becoming refugees in neighbouring countries and another 800,000 seeking asylum in Europe. Unlike refugees that fled the country, there is a sense among IDPs that their displacement will only be for a short period of time. This can be seen in the 56 per cent of Syrian IDPs remaining in their governorate of origin.

In the wake of the political and social unrest in the Arab world, in 2011, the Yemeni people took to the streets to protest against their government. After months of protest, the President agreed to hand over power to the serving Vice President and form a unity government with the opposition. In 2012, Abdrabbuh Mansour Hadi was elected president after an uncontested election. Shortly after, in 2014, a draft of a federal constitution accommodated the Houthi and Southern demand, which was eventually rejected, and the Houthi took over most of Sanaa. This led to the Houthis appointing their own presidential council, replacing President Hadi who fled to Aden in the south of the country. There have been multiple peace talks between the warring factions, since Yemen's civil war began in 2014, but no sustainable resolution has emerged. The standard of living of Yemeni, which was already below the regional average, has since fallen further. It is estimated that 23.4 million Yemeni required humanitarian assistance in 2022, of which 12.9 million are in acute need.

In Libya, Muammar Gaddafi has been in power since 1969 until he was eventually deposed in 2011. A new interim government, the National Transitional Council, has since been recognized as the legitimate government. After the General National Congress (GNC) refused to disband, violent protests broke out in 2014. A new parliament was eventually elected, and a new conflict ensued. A new interim administration, Government of National Unity (GNU), has since been formed through a UN backed process to oversee the future parliament and presidential elections in 2022.[42] With the protracted conflict and unresolved political situation, Libya has become a destabilising force in the region.

40 UNDRR, 2021.
41 UN News, 2021.
42 Freedom House, 2022.

Moreover, the Palestinians have been in a continuous conflict with Israel since its establishment in 1948. Internal displacement has been one of the main challenges in the West Bank and Gaza, which have resulted in the displacement of thousands of Palestinians throughout the years (see Box 5).

Box 5. Building resilience through spatial planning interventions, Palestine

With rapid growth, Palestinian urban centres are facing immense pressure in environmental, socioeconomic, and geopolitical dimensions. The geopolitical division limits access to land and natural resources to only 40 percent of the West Bank, and limits access to 30 percent of agricultural land in the Gaza Strip. Urban expansion and population growth has occurred without planning, impacting the quality of the surrounding agriculture area, infrastructure, services and housing.

UN-Habitat supports the 'Build Back Better' process through spatial planning support and housing rehabilitation in the Gaza Strip. It is also supporting urban-rural linkages (in Qalqilya, Tubas and Northern Jordan Valley, Bethlehem, Ramallah and Al-Bireh, Hebron, and Jerusalem), which is benefiting more than 1.9 million Palestinians. There is continuous support for the Palestine National Spatial Plan and towards the adoption of the National Urban Policy.[43]

Syria, Yemen, and Libya have all experienced large protests, revolutions, and civil wars since the political unrest that started in 2011. These countries had protracted conflicts causing damage to their cities; consequently, their physical and social infrastructure have been heavily damaged and are no longer capable of supporting the needs of their inhabitants. While in some countries the conflicts have calmed down to allow governments to plan for reconstruction, the limited resources and capacity have hindered further development and efforts to rebuild.

The tragedy underlying the destruction of homes, cultural sites, and communities by conflict must not be understated. Despite this, some Arab cities have been able to show great resilience and optimism through thoughtful and forward-thinking reconstruction initiatives. In some cases, post war reconstruction has led to impressive 'Build Back Better' initiatives in cities located in conflict zones, as is the case in Mosul, Iraq (see Box 6). This has attracted funding and expertise from regional and international groups and has created more resilient and sustainable cities in the long term.

43 UN-Habitat Palestine Country Office.

Box 6. Al Yarmouk Park Rehabilitation Project in Mosul

The rehabilitation of Mosul's iconic Al Yarmouk Park in late 2022 comes at a time when green areas and public spaces in Iraqi cities are increasingly valued by citizens, especially in Iraqi cities with a low ratio of green space per capita that are increasingly affected by climate change. Creating leisure and meeting spaces in areas affected by recent conflict constitutes a significant improvement in the quality of the environment and people's living conditions. Not only do they encourage different sectors of the population to mix and integrate, but they have proved to be catalysts for physical improvements and economic activities in the nearby areas, both directly and indirectly. An important element that supports the transformational success of this project, funded by European Union, has been the integration of sports and leisure facilities. Sports have always been popular with the Iraqi people and Al Yarmouk Park offers today a football pitch, two multipurpose courts, along with an open-air gym, a running track, a cycling route, and an active playground for children, including those with special needs. The project was realised with the firm support of Mosul Municipality whose staff was engaged since its participatory design phase with the community. The use of renewable energy to feed the park's irrigation network and community hall also provided the opportunity to train local government staff in designing, implementing, and maintaining photovoltaic systems.

COVID-19 in the Arab Region

The COVID-19 pandemic is one of the main challenges that has faced the region in recent times. The virus and the subsequent lockdown measures have particularly impacted the most vulnerable populations, including those living in high density and overcrowded areas such as slums and informal settlements, which tend to be characterized by a lack of services and scarcity of resources. Furthermore, uneven spatial development, both between and within cities as well as between rural and urban areas, has run the risk of exacerbating the socioeconomic divide. This is due in part to the unequal access to capacity and resources among local and regional governments.[44]

Like many other countries around the world, in early 2020, Arab countries applied several pressing actions – such as physical distancing, border closures and full and semi-lockdowns – to slow down or control the prevalence of COVID-19.[45,46] This resulted in major impediments to human mobility around the world. A UNESCWA report [47] divided Arab region countries, based on their responses to COVID-19. In the middle-income Mashreq and Maghreb countries (ie. Algeria, Egypt, Jordan, Lebanon, Morocco and Tunisia), swift and strict control mechanisms were initiated to manage the effects of COVID-19 and minimize the chances of an escalating spread of the virus.[48]

44 UNDP, 2022.
45 WHO, 2020.
46 WIEGO, 2020a.
47 ESCWA, 2022.
48 ESCWA, 2022.

Whereas, in the countries of the Southern Tier (ie. Comoros, Djibouti, Mauritania, Somalia, Sudan, and Yemen), which tend to have limited resources at their disposal, responses relied primarily on donor-finances and thus due to mobilization challenges, meant that interventions were delayed resulting in an immediate spread of the virus.[49] On the other hand, due to their financial capacity and ability to execute actions promptly, the six GCC countries succeeded with a strong performance in managing the pandemic. In contrast to this, the conflict affected countries (ie. Palestine, Iraq, Syria, Libya, and Yemen) faced significantly greater challenges, including inhibited access to potable water and an already overrun and underperforming healthcare systems to name a few. In the case of the latter, grants from different international organisations and other Arab countries were provided to support their fledgling health care systems. For example, in Yemen, the Ministry of Health received additional supplies of medical equipment from the World Bank and the WHO. Additionally, the European Union allocated 70 million Euros to scale up assistance across Yemen, bringing its humanitarian support in 2020 to 115 million Euros, while IsDB donated $1 billion.[50]

Box 7. Kingdom of Bahrain Innovative approaches to COVID-19 response[51]

The Kingdom of Bahrain launched a financial package that exceeded 4.5 billion Bahraini Dinars (USD$ 11.9 billion) to support the economic and commercial sectors. The government took a number of rapid measures to confront the pandemic, including exempting consumers from paying certain bills. Residents, businesses, and institutions affected by the pandemic have been exempted from paying their electricity and water bills for a period of three months. Banks have been told to increase lending capacity to about 3.7 billion Bahraini Dinars to postpone instalments or provide additional financing to customers.

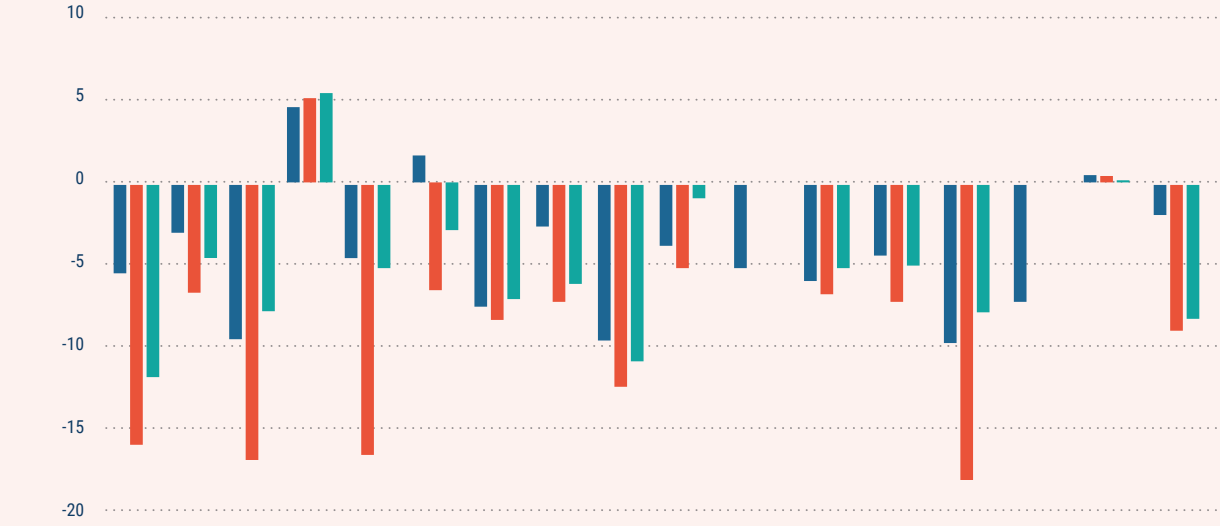
Additionally, in private sector businesses whose operations and resources have been negatively impacted by the pandemic, the government promised to compensate all Bahrainis with private sector insurance for 100 per cent of their salaries for three months and 50 per cent of their salary for the remaining nine months of 2020.

For war and conflict affected countries, COVID-19 has added another layer of complexity to the already existing crises, complicating humanitarian actions as well as efforts to forge peace. Approximately, 55.7 million people are currently in need of humanitarian assistance across the region, including 26 million forcibly displaced persons. In such contexts, the pandemic must be understood and responded to within the broader humanitarian-development nexus.[52]

Globally, the resettlement of refugees has been affected as well. The Bureau of Resettlement's most current statistics show a sharp decline in the number of refugees resettled in the United States during the previous five years. The drop has been impacted by the pandemic and enhanced security screening for refugees coming from Arab hosting countries categorised as "high-risk" countries.[53]

49 ESCWA 2022.
50 UN, 2020.
51 Government of Bahrain, 2021.
52 UNDP, 2022.
53 IOM, 2021a.

Figure 8. General government fiscal deficit for selected countries, 2019-2021 (% of GDP)



	Bahrain	Kuwait	Oman	Qatar	Saudi Arabia	United Arab Emirates	Egypt	Jordan	Lebanon	Iraq	State of Palestine	Morocco	Tunisia	Algeria	Lybia	Mauritania	Sudan
2019	-4.9	-2.5	-9.2	5.1	-4.18	1.9	-7.07	-2.13	-9.15	-3.3	-4.67	-5.53	-3.9	-9.27	-6.89	0.38	-1.74
2020	-15.65	-6.29	-9.2	-17.12	5.56	-16.25	-6.06	-7.79	-6.75	-12.09		-6.32	-6.78	-17.81		0.19	-8.6
2021	-11.45	-4.16	-7.36	5.66	-4.65	-2.45	-6.62	-5.66	-10.43	-0.41		-4.72	-4.6	-7.55		0.04	-7.94

Source: ESCWA, 2020. **Note.** Figures for 2021 are estimates.

In addition, numerous analysts from around the world intently monitored the effects of COVID-19's migration and mobility consequences on international remittances. Surprisingly, data from a range of countries defied the World Bank predictions for a significant drop in remittances globally, with some countries reporting record monthly inflows. Remittance flows were officially recorded at USD$ 702 billion in 2020, just 2.4 per cent less than the USD$ 719 billion seen in 2019.[54] One of the most significant elements in explaining the slower-than-expected drop in remittance flows appears to be a move from informal to more formal channels, through increased digitisation of financial transfers.

Several nations have implemented policies to promote the use of digital services during the pandemic, and mobile money networks have made remittance transfers more affordable and quicker than usual cash and bank transactions.

As can be seen in Figure 8, pandemic spending increased the fiscal deficits and governmental debts in Arab countries in 2020. Nearly all countries experienced increasing deficits between 2019 and 2020. Due in part to the decrease in energy prices, even the GCC countries were significantly affected.

54 IOM, 2021a.

In Lebanon, for instance, the COVID-19 pandemic and the August 2020 Port of Beirut explosion had a significant negative impact on the economic situation. Accordingly, Lebanon's ability to overcome the pandemic has been affected by its protracted economic crisis. In 2021, Gross Domestic Product (GDP) decreased by 16.3 per cent;[55] more than the estimated percentage in the figure. Since then, some countries, including those in the GCC have recovered. This is largely due to the rebound in energy prices.

Furthermore, as a consequence of COVID-19 and the strict lockdown measures, the regional income poverty rate increased by an estimated 3 percentage points to reach 32.4 per cent in 2020; equivalent to around 115 million people. Over 80 percent of these live in just four countries, namely Egypt, Sudan, Syria and Yemen. Moreover, the unemployment rate in the region increased by an estimated 1.2 per cent in 2020. The persistence of these problems is deeply intwined with the resurgence of aid flows and remittances in 2021 and on the ability of governments to provide social safety nets to alleviate poverty.[56]

Unfortunately, the data shows that women in the Arab region suffered more from the pandemic than their male counterparts. Women in this region earn on average 78.9 percent of what men earn on a per capita basis and are estimated to have stood to lost 700,000 jobs during the pandemic.[57] This is particularly the case in countries with a large informal sector due in part to weak public services, a restrictive regulatory environment and low state capacity.[58]

It is also worth noting that women tend to take on a disproportionate amount of unpaid care work, placing additional responsibilities on their shoulders. In addition to this, they also suffered from other consequences, such as safety and security concerns. For example, in Somalia, "women and girls are likely to face a greater risk of violence, including gender-based violence, as economic constraints related to the COVID-19 pandemic led them to seek livelihood opportunities in locations further away from their homes."[59]

While the COVID-19 pandemic revealed certain social and economic fault lines in society, this became most evident in urban areas. While urban areas are often hailed due to the benefits that accrue from density and proximity, the effects of COVID-19 disproportionately affected those in areas that were overly crowded and congested, making it difficult to access open space and to practice social distancing measures. This was most revealing in informal settlement areas where the recommended amount of space per person is greatly exceeded. In addition to this, it also revealed existing social inequalities, such as those between males and females, the wealthy and the poor and among different demographic groups. This underscored the importance of planning with social equality in mind. While COVID-19 is largely viewed as a public health disaster, if analysed and responded to properly, it could also serve as one of history's greatest equalizers, with a focus on addressing social inequalities and building our communities in a more equitable and human-centric way.

55 Immenkamp and Jongberg, 2022.
56 ESCWA, 2020.
57 United Nations, 2020
58 ESCWA & ILO, 2021
59 UN, 2020.

SYRIA
City of Aleppo and destroyed building in Syria 2019. © Shutterstock

Access to Food and Food Insecurity

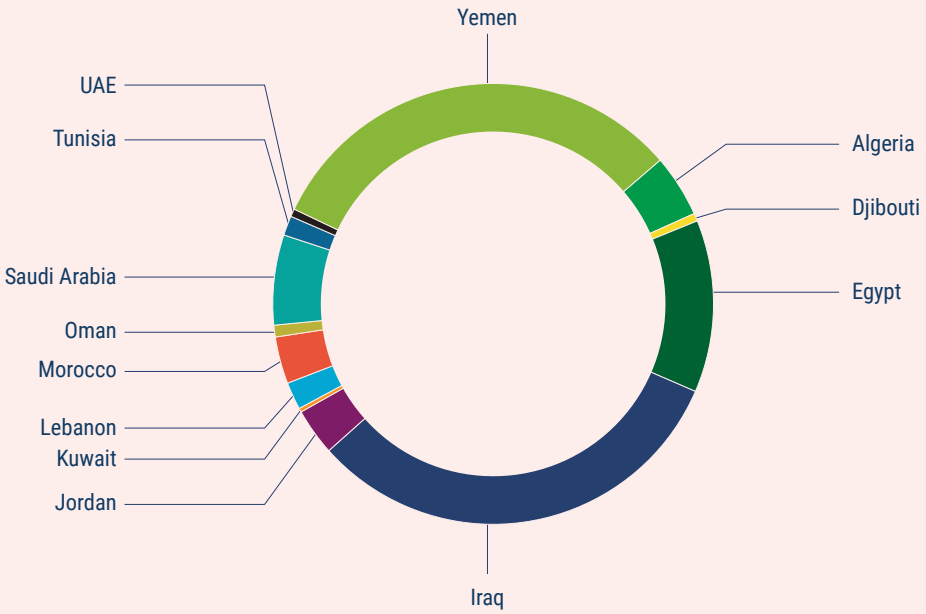
Governments in the Arab region have prioritized national self-sufficiency in food staples, mainly by subsidising cereal production through a combination of producer price-support and input subsidies as well as import controls and public procurement. Self-sufficiency in cereals to reduce import dependence has been central to agricultural policies in several Arab countries, including Algeria, Egypt, Syria and Tunisia.

Despite this, the region has been steadily witnessing a sharp decline in the agriculture sector's contribution to employment. The percentage of labour employed in agriculture, averaged across countries in the Arab region, stood at 18 percent in 2016, compared to 45 per cent in 1970.

This is lower than the regional averages for South Asia (43 per cent), sub-Saharan Africa (57 per cent), East Asia (21 per cent) and the global average of 26 per cent. Figure 9 shows the distribution of food insecurity throughout the Arab region, which is most concerning in Yemen and Iraq, both of which have been heavily exposed to conflict and insecurity. For example, the war in Yemen has led to a huge scarcity of food, with reports of children dying due to famine and malnutrition[60]. Egypt, on the other hand, which is one of the prominent agricultural countries in the region, has been subjected to the shrinkage of its agricultural land area in the delta and upper Egypt region due to rapid urbanisation and decreasing investment in agriculture. In the Arab region, urban expansion on agricultural lands represents a key challenge for a region that is already threatened by food insecurity.[61]

60 UNICEF, 2021.
61 FAO, 2019b.

Figure 9. Distribution of food insecurity in the Arab region



Source: World Bank, 2021. **Based on:** FAO Regional Overview of Food Security and Nutrition Arab States 2019.
No data available for Syria and West Bank and Gaza. Data reported are averages for 2016-2018.

COVID-19 has further exacerbated the food insecurity problem. This is due in part to the decline in annual external remittances and livestock and goods exports, as well as the recent increase in food prices. In Sudan, the pandemic's economic impact, along with nearly six months of containment measures, resulted in 167 per cent inflation by August 2020; this in turn is reflected on rising food prices.[62] "In response to the COVID-19 pandemic and the pressures on food supply chains, prices and the consequent violence reported in different localities of Darfur region, FAO has upscaled its operations through implementation of take-home rations in lieu of on-site school meals, cash-based transfer values for general food assistance, and food assistance for assets and productive safety nets". Following suit, "in 2020 Saudi Arabia and the United Arab Emirates also allocated large sums to addressing the COVID-19 pandemic in Sudan. These are in the form of shelter and food aid to those affected by the pandemic and the country's recurring floods as well as assistance to the country's hospitals and the health sector".[63]

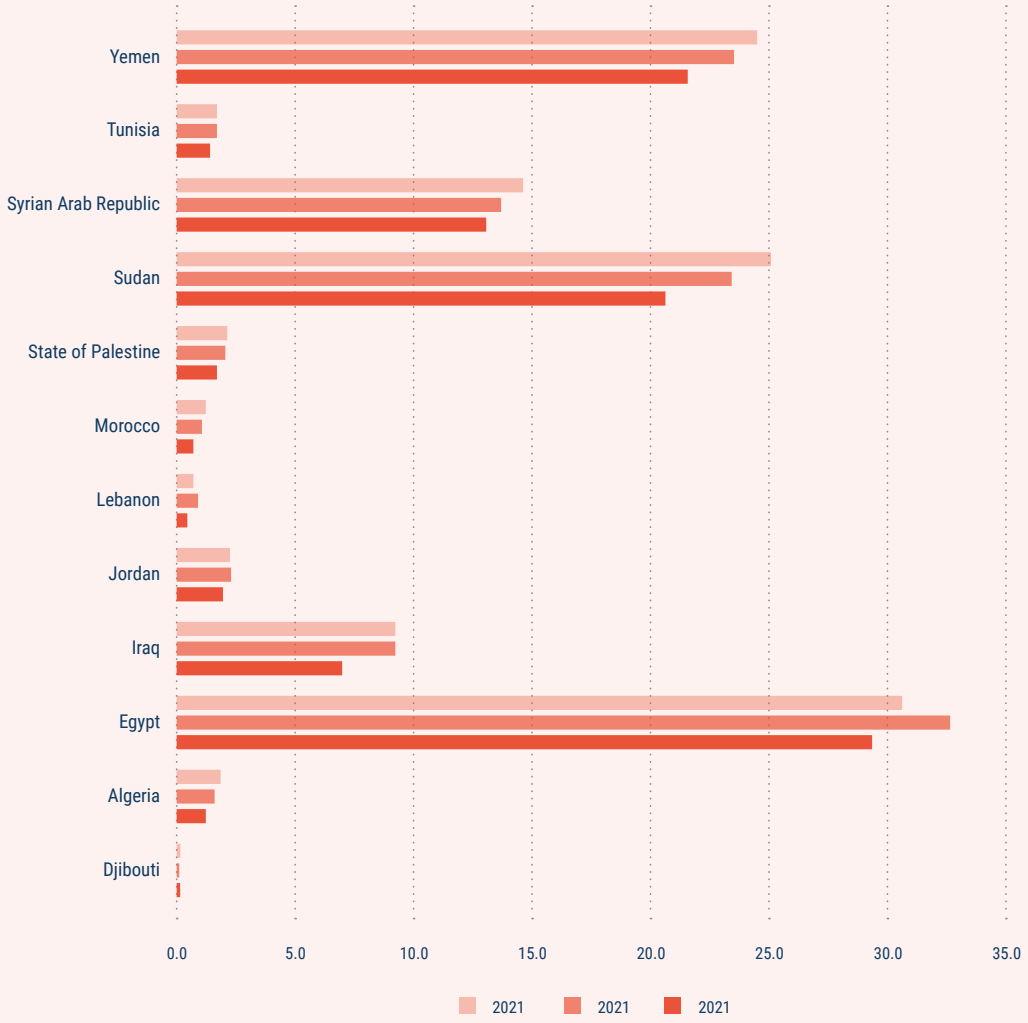
It is important to note that the food and water security issues in the region are closely linked to local climatic challenges as well. It is often low-income groups that are the most affected by this. Consequently, cities in the Arab region are being forced to plan and implement infrastructure interventions in response to the harsh local weather conditions. Sustainable water management strategies will not only benefit access to clean water but will also strongly enhance food security and the livelihoods of farmers in the region.

62 World Bank, 2021.
63 Ibid.

Poverty and Economic Inclusion

Poverty and unemployment rates are a notable concern throughout the region. The ESCWA *Multidimensional Poverty Report*, covering ten countries in the Arab region revealed that out of the countries surveyed, 38.2 million Arabs live in acute poverty, while 116.1 million are deemed to live in moderate poverty. [64] Figure 10 depicts the headcount poverty ratios for 2019-2021 using national poverty lines. According to this, the highest poverty ratios can be found in Egypt, Sudan and Yemen.

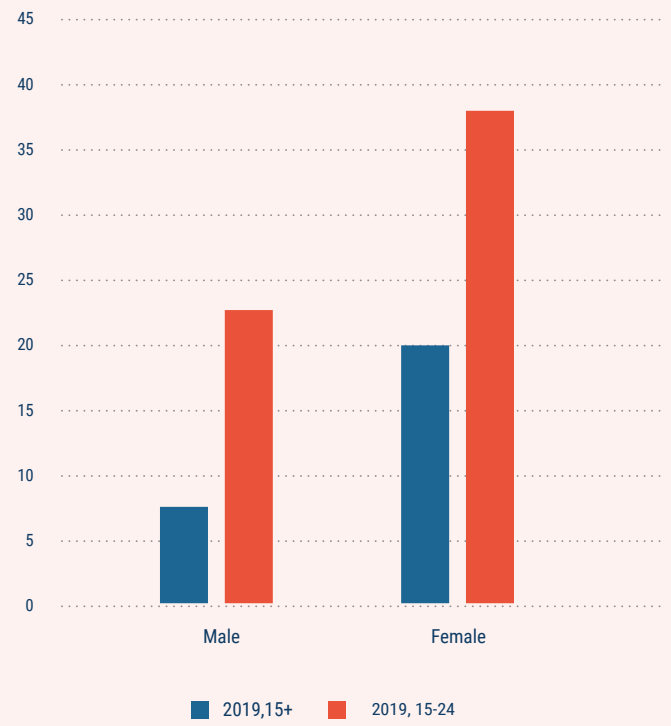
Figure 10. Headcount poverty ratios using national poverty lines (%)



Source: ESCWA, 2020. **Note:** The results are the output of the projected scenario.

64 Algeria, Comoros, Egypt, Iraq, Jordan, Morocco, Mauritania, Sudan, Tunisia, and Yemen.

Figure 11. Unemployment rates in the Arab region by sex, 2019



Source: ILO & ESCWA, 2021, Chapter 1

With 14.3 million unemployed individuals (even before the COVID-19 pandemic), the Arab region had the worst rates of unemployment in the world, particularly among women and young people.[65] Historically, there have been huge gender discrepancies in the Arab labour markets, with female rates of involvement in the labour force significantly lower than that of males. Although they represent around 50 per cent of the Arab population, female unemployment rates are comparatively higher than their male counterparts. This can be seen in Figure 11 which compares unemployment rates in the Arab region by sex in 2019.

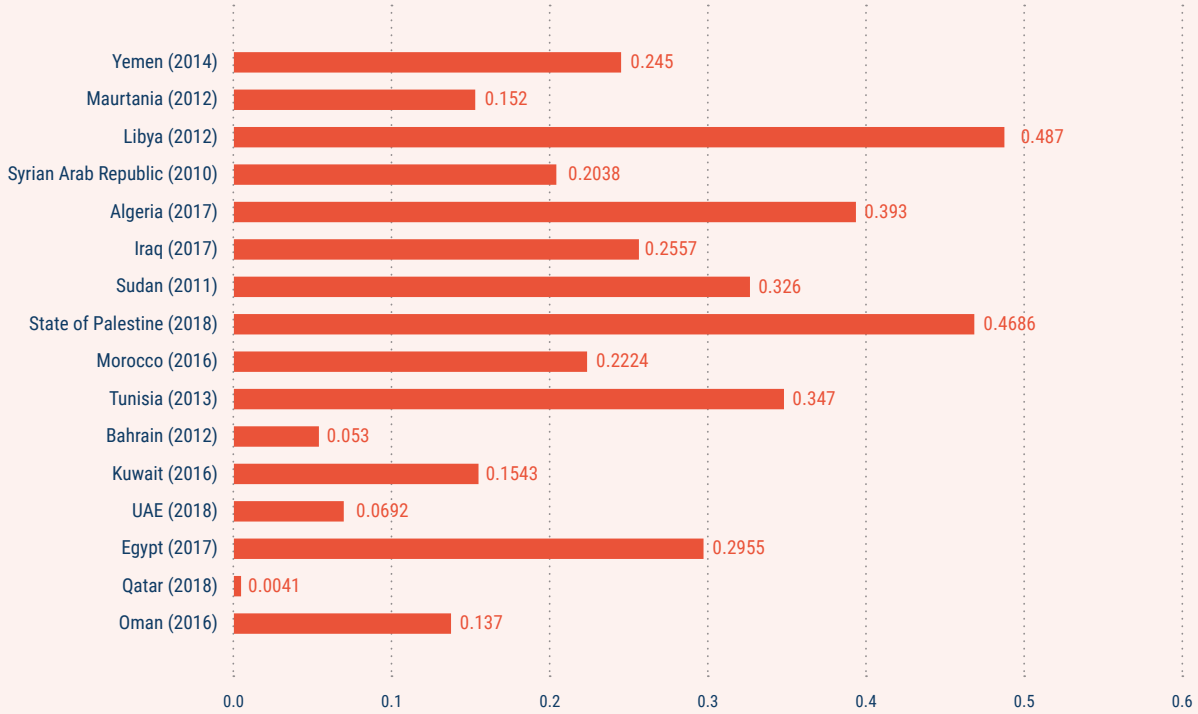
With an overall youth unemployment rate of 26.4 per cent compared to 10.3 per cent among their adult counterparts, youth have also been disproportionately affected.[66] One of the underlying barriers to access the labour market for the youth is the mismatch between the skills demanded by employers and the skills offered by the labour force. This is due in part to the issue that the educational systems including secondary schooling, technical vocational education, and training and universities are not adequately preparing students for the current labour market needs. Other key barriers impeding youth access to the labour market include a high reliance on public sector employment, as well as an influx of Syrian refugees, particularly in Lebanon and Jordan, adding more pressure on an already restrained labour market situation. An overview of youth unemployment rates in the Arab region can be found in Figure 12.

As with the adult population, there are considerable gender gaps in unemployment among young people. The unemployment rate among young females in 2018 (34.4 per cent) was twice as large as the rate for young males. The reasons behind low economic participation of women are complex, mutually reinforcing and interconnected and include: 1) discriminatory rights in the law impacting access to economic rights, 2) an inadequate policy and institutional environment coupled with a generally low representation of women in decision-making positions; 3) unequal access to and control over resources such as land and finance and to services such as transport; 4) social norms and discriminatory practices perpetuated through formal and informal institutions prevalent in societal culture which result among other in disproportionate engagement in unpaid care work; 5) protracted conflicts, militarization, violence in various forms which hinder women's participation.

65 ILO & ESCWA, 2021.

66 ILO & ESCWA, 2021, Ch. 1.

Figure 12. Youth Unemployment Rate in the Arab Region, 2018



Source: World Bank, 2018a.

Although females and youth represent a large proportion of the population, and despite increases in the level of education among both demographics, they still face significant obstacles in their quest to find meaningful employment. Furthermore, excluding them from the labour market has serious long-term implications on the countries' economic growth and prosperity.

It is worth noting that in recent years, some countries have made significant strides in reducing their unemployment levels, especially among the youth and female population. Saudi Arabia for example has created several new programs to combat barriers that previously prevented certain groups from seeking out employment opportunities. For women, the government created the WUSOOL Program which provides transportation options for working women to commute from home to work and the Qurrah Program for parents searching for childcare while both parents are at work. The results have been impressive. Between 2017 and 2021, Saudi Arabia increased its female labour force participation rates from 17.4 percent to 32.3 percent.[67]

Research shows that increased participation by women and youth in the labour force has a positive effect on productivity and economic growth. To improve the lives of residents in financially precarious Arab nations, cities are encouraged to apply the frameworks of the SDGs and NUA. Central to this are the emerging participatory processes which promote the inclusion of people from different sectors of society to voice their concerns and increase their autonomy within their communities.

67 GA Stat, 2021

Incohesive Multilateral Governance

While urbanisation is widely viewed as a key engine of development, Arab cities are still facing serious challenges impeding its people to benefit from the various advantages it offers. For Arab cities to be inclusive, safe, resilient, and sustainable, governance practices, including transparency, accountability, participation, and engagement of communities, and leaving no one behind - as the main concepts of the NUA - are pressing issues that need to be urgently addressed.

Governance of Metropolitan Arab Cities

Due in part to their influence and economic importance, large cities play a fundamental role in contributing to uneven growth and urbanisation. Primarily driven by population increase and growth of built-up area, capitals and urban centres have extended beyond the 'conventional' municipal administrative authorities, instead creating large metropolitan areas. Examples include the Greater Cairo Region, Amman Metropolitan Area, Metropolitan Area of Beirut, Dubai-Sharjah-Ajman (DSA) Metropolitan Area, Riyadh Metropolitan Area, Khartoum Metropolitan Area among others.

While in 1975, the global number of metropolitan areas was 162, by 2015 this figure has increased to 503.[68] Accordingly, the global trends show that the number of metropolitan areas has more than tripled during the past four decades.

Metropolitan governance systems are still not very common in Arab cities. Despite its global significance as one of the largest metropolitan areas in the world, Greater Cairo remains centrally controlled by national-level authorities with no metropolitan-level emphasis on administrative organisation or in horizontal coordination. In the past this has led to fragmented responsibilities. Recognizing these shortfalls, however, the Egyptian government has begun to explore innovative measures to ensure greater administrative integration. In some countries, governance of metropolitan areas takes the form of cooperation between adjacent municipalities, creating unions or federations of municipalities, such is the case in Lebanon (union of municipalities) or the recent Morocco decentralisation reform that led to the "introduction of intermunicipal cooperation establishments - Etablissements de Cooperation Intercommunale (ECIs) - that intends to provide metropolitan agglomerations with a framework for service delivery at the intermunicipal level" (Box 8).[69]

ALGERIA
Fishery port and urban sea Station, bay of water with the Martyr's Memorial and Zighout Youcef Boulevard white buildings.
© Shutterstock

68 UCLG, 2016.
69 Lall et. al. 2019

Box 8. Three Recommendations to Strengthen the Metropolitan Governance in Morocco

Urbanisation in Morocco is leading to metro-polization, with larger cities growing beyond their municipal boundaries. To provide municipalities with the right tools as well as legal and institutional frameworks for intermunicipal cooperation, three key recommendations are outlined:

- Providing the ECIs with predictable and sufficient financial resources to allow them to fulfil their mandates.
- Considering that integrating land use and transport planning at the metropolitan level helps to promote the efficiency of urban growth, ECIs should also take a larger role in preparing territorial plans at the level of urban agglomerations.
- The government should ensure that ECIs are established at the relevant geographic scale.[70]

The emergence of metropolitan areas offers the opportunity to align various governance, political, technical and administrative systems, while at the same time addressing important cross boundary issues related to mobility, land use planning, environmental management and economic production. As such, metropolitan governance is crucial in "addressing whole urban functional areas in order to overcome institutional, social and spatial fragmentation".[71]

The lack of coordinated multilateralism in the governance of Arab cities has been a longstanding issue and has led to a variety of efforts in the Arab region to move toward decentralisation and empowerment of municipal governments. Successful examples of piloting decentralization efforts can be found in Morocco and Tunisia to name a few.

Role of Civil Society in the Urbanisation of Arab Cities

Civil society organisations that are active in the Arab region represent an important stakeholder in the process of urbanisation and urban development.

Unfortunately, there is no database that contains information about active civil society organisations in the region. In some countries, activities for civil society organisation were observed in the field of urban development (e.g., GCC countries), while in others (Mashreq and Maghreb), they contributed to promoting a strong urban discourse through awareness raising activities for key urban challenges including housing, public space, heritage, and legislative issues.

Some NGOs are active on the local level and are engaged through partnerships with active international cooperation organisations and the implementation of regeneration projects in informal areas. Their importance is based on their local knowledge about the area and the dynamics between local stakeholders. Egypt, Lebanon, Jordan, Palestine and Tunisia are all examples of countries in the region that have a strong civil society in the urban realm. In countries of conflict, local NGOs are more engaged in humanitarian activities aimed at providing emergency assistance to groups in need; including IDPs and refugees who suffered from losing homes and property due to the war.

70 Ibid.

71 IADB & UN-Habitat, 2017.

While there is not always an enabling environment for such groups, through their knowledge of local issues and access to local communities, civil society organisations can play an important and complimentary role, aiding governments in the urban development of their cities.

Sustainable Urbanisation for a Better Future

One of the key conclusions drawn from this chapter is that the combination of regional and local challenges combined with the pressures of rapid urban growth incommensurate with the expansion of infrastructure and services poses a major challenge for cities in the Arab region. This is creating imbalanced territorial development and increasing social inequalities, exacerbating problems of informal employment, urban sprawl, environmental deterioration, and pressure on already strained physical infrastructure and various social services.

These emerging urban trends are challenged by divisive conflicts and instability caused by tension and turmoil.

Conclusions and Takeaways

- Climate Change and the Arab Cities: Current efforts toward sustainability need to be intensified to prepare cities for short and long-term consequences of the changing climate. More budgeting is needed for projects geared towards disaster risk management, including assessment measures and planning, establishing administrative capacity building for staff and inclusive planning and policy measures.
- Gender inequality and Arab Cities: Unlocking the potential of half the population need to be scaled up through inclusive urban policies and planning that address the barriers to equality, including women's safety in the city, access to infrastructure to decrease time poverty, and access to economic zones of the city thus increasing economic participation.

IRAQ
Heet - Al Nejoom Park Play Day. © UN-Habitat

- Rebuilding After Destruction: The Arab region is one of the most conflict-heavy regions of the world. Conflict cities suffer from the destruction of buildings and infrastructure. Plans and investment for the reconstruction of countries and cities are still in the works and in most cases, local funding alone will not be sufficient and instead international funding and creative solutions will be needed.
- Pandemic Preparedness in the Urban Context: In most instances, government responses to the COVID-19 pandemic depended on the health care capacity of the county. This also tends to be strongly correlated with the robustness of the economy as a whole. When it came to COVID-19 response interventions, the performance of GCC countries fared much better than other countries in the region. Cities in conflict countries struggled to cope with the pandemic due to limited economic capacity and resources. COVID-19 left its mark on the physical urban environment, as the prolonged economic impacts have paused or postponed many projects and planned interventions in the region.
- National and Regional Challenges are Reflected in Cities: Access to food and food insecurity have recently reached new levels, caused by wars, conflicts and the threat of climate change. Consequently, more creative solutions and budgets are required to keep up food production in the region. Poverty and a lack of sufficient resources still forms one of the main obstacles to the development of cities. This comes on top of urban challenges in the Southern Tiers' subregion, together with cities in conflict, followed by Mashreq and Maghreb countries. Given that these challenges play out at the local level, resolving them will require local level solutions, including investment in both hard and soft infrastructure and inclusive policy making geared towards leaving no one behind.
- Distribution of Power: In some parts of the Arab region, the role and level of participation of civil society remains contested, especially in the urban development context. Chapter 5 outlines why strengthening multilateral governance will play a key role for the sustainable urban development of the region, including the achievement of local SDG-aligned targets.

IRAQ
Mosul Old City transect walks.
© UN-Habitat

03

Status Quo of Urban Infrastructure in the Arab Region

Introduction: Defining Urban Infrastructure

It is important to contextualise the current state of urban infrastructure in Arab cities as a starting point for a regional understanding. It is generally understood that parts of the region are engaged in extensive infrastructure developments through the construction of airports, massive showcase museums, art districts, urban parks, and driverless metro systems. Others are mired in a sustained state of conflict, lacking essential infrastructure systems, and suffering from an endemic shortage of utilities. This dichotomy enhances and amplifies a general sense of disparity and inequality – yet it does not fully capture the region's diversity. The full picture is more ambivalent; one can find promising efforts that seek to build and develop an infrastructure that is resilient and fulfils the needs of the population alongside concerning trends. It is the purpose of this chapter to demonstrate the existing state of infrastructure in the region while highlighting some examples of projects in the region.

IRAQ
In Heet Water network extension. © UN-Habitat

The term 'infrastructure' originally refers to the assets built and managed by sovereign authorities that are central to the efficient functioning of a country, region or city. The word infrastructure typically refers to what engineers and policy makers term hard or physical. This includes large scale systems for transit, electricity, gas, oil, food, finance, sewage, water, heat, communications and environmental hazard protection. In other instances, references are made to 'critical infrastructure', [72] including housing, health care facilities, education, urban parks, public libraries and more. As socio-economic organisation and administration has grown in complexity in parallel with the growth of the city, infrastructure has evolved to be applied to private enterprises, housing, intellectual assets, bureaucratic administration, scientific research, banking and defence structures among others. Needless to say, the classification of public and private assets has become increasingly intermingled.

Urban infrastructure is playing an increasingly important role in development, as highlighted in numerous global development frameworks, including the New Urban Agenda. It affirms the significance of infrastructure in providing a safe, inclusive, resilient and sustainable environment. Such a view highlights the expansion of infrastructure beyond the traditional/critical sectors (transport, water, and energy). Indeed, the notion of urban infrastructure has evolved to a systemic view of new facilities, and utilities that take into consideration urban metabolism and vulnerabilities, e-cities, and communication networks – in short, an 'extended conceptualisation of urban infrastructure'.[73] The expansion of this definition poses many challenges, as key aspects of existing assets need to be rethought and new structures introduced.[74]

Social infrastructure is receiving increasing attention, as it is seen as a way to mitigate rising challenges facing cities. This includes accessible public spaces and public parks, libraries, and childcare centres, sustainable transport systems, and safe and secure housing for all without discrimination. The basic infrastructure should come as a first priority when it comes to lack of sufficient resources. However, when hard infrastructures fail (ie. power outages or flooded city streets), it is the softer side of infrastructure, the social support systems, that become crucial in overcoming such disasters. For example, libraries can act as shelters, while urban parks become a safe site to seek refuge. Indeed, engineers now design hard infrastructures such as seawalls and bridges so that they also function as social infrastructure by incorporating parks and walking trails within these integral systems.[75]

Recognising the inherent complexity and broad interpretation of the term 'urban infrastructure' this chapter makes a distinction between essential systems (utilities) and those that are of direct relevance to urban form and people's interactions (social infrastructure). From an urban planning perspective, the following are highlighted: transportation and mobility; housing; heritage and culture; and urban parks/public spaces.

The latter section, dealing with the ***state of urban infrastructure in Arab cities,*** focuses more on infrastructure that is of relevance to the everyday lives of city residents and makes a direct contribution to their quality of life from an urban planning and design perspective. Rather than engage in an individual review, the chapter identifies general infrastructure trends and directions seen as relevant for cities in the region. The range of cities examined in more detail attempts to include representative examples from the various sub-regions: Mashreq, Maghreb, GCC and Southern Tiers. Further-

72 Klingenberg, 2019, paperback ed.
73 Ferrer, Thomé, & Scavarda, 2018.
74 Matthews, Lo, & Byrne, 2015; Mell et. Al., 2013.
75 Klingenberg, 2019, paperback ed.

UAE
Dubai. © Freepik

more, it is recognized that some parts of the Arab world have been, and continue to be, subjected to civil unrest and wars, which have severely impacted their infrastructure systems. The extent of damage and subsequent need in conflict cities is also covered.

Current State of Urban Infrastructure in Arab Cities

Subregions of Arab countries differ in their level of urban infrastructure quality. Countries in the Maghreb and Mashreq subregion have been quite active in their attempts at engaging with innovative and advanced infrastructure. Morocco, for example, is ranked 54th by the World Economic Forum (WEF) in terms of quality of infrastructure among the 137 countries it covers.[76] Algiers, following the end of the country's armed conflict in 2002 has been involved in a substantive restoration and rebuilding effort. In 2010, it began a five-year USD$ 286 billion development program to update its infrastructure and provide employment opportunities in the process.[77] Amman has been hosting several waves of refugees who have fled conflicts over the last two decades. This influx has put increased pressure on the city's infrastructure and its ability to deliver basic services.[78] The European Bank for Reconstruction and Development (EBRD) has thus engaged in some efforts to alleviate these problems, financing a series of vital infrastructure projects such as the expansion of the Al-Ghabawi landfill through the provision of a USD $56 million loan. This is part of a larger initiative to finance improvements in solid waste management.

The GCC region has recognized the risks of solely relying on oil and fossil fuels, that is why

76 Global Infrastructure Hub. 2022.
77 Country Watch, 2016; PwC, 2013, p. 19-24.
78 Zgheib, 2017.

the GCC countries have decided to engage in various initiatives in preparation for a post oil future. Dubai's pristine roads, gleaming towers, teeming airport and high-tech metro system are generally described as exemplary, and the city overall has become one of the fastest growing in the region.[79] Diversification strategies have built a competitive economy independent of oil. [80] Dubai has been successful in diversifying its urban economy to reduce dependency on commodity resources aided by expansion in tourism, real estate, and trade. This transformation has been supported through expansion in infrastructure, upgrading of the financial services sector and establishment of free zones to improve its global competitiveness.[81]

Contrary to the GCC countries and countries like Egypt that may lack sufficient financial resources, but have political stability, countries such as Syria, Yemen, Iraq, or Palestine, which tend to suffer from political unrest, are in need of major reconstruction efforts. Large amounts of investment lie beyond the capabilities of the Syrian government. UNHCR figures suggest that USD 465.2 million was requested for the Syria operation in 2022, while only 38 percent of this has been funded.[82] Moreover, with high levels of poverty, lack of basic services, and extremely damaged buildings, conditions still remain alarming with reconstruction efforts falling drastically short.

Due in part to the ongoing war, Yemen is facing serious problems related to infrastructure, which, in a way has exacerbated issues that existed prior to the conflict. This pertains to the countries' rapid rate of urbanisation, which has placed significant pressures on land, especially in the capital Sana'a. This has resulted in uncontrolled growth, compounded by the absence of a national urban policy. One particularly salient problem is the proliferation of the informal sector; indeed, much construction in Sana'a over the past decade has taken place in unplanned areas.

This all highlights the challenges to urban infrastructure in the Arab states where governance, accessibility, sustainability, and resilience are in question. Accordingly, it is unclear whether these efforts are able, in the short term, to improve the living conditions and the quality of life of the urban residents.

Transportation and Mobility

Overall, due to the current availability of decent roads and public transportation options, transportation projects occupy a significant share of infrastructure development in the Arab region. While such a focus is understandable in the case of cities that lack functioning highways or decent public transportation, which is applicable to several countries in the region, in some cases such investments are not getting the expected revenue in the short run.

Public Transportation and Active Mobility

Throughout the region there is also considerable effort towards providing public transportation options. While there are a number of projects that are underway, the challenges ahead preclude them. Looking at the percentage share of population with access to public transport, it appears that there is a large gap among cities in the region, with cities like Marrakesh with nearly 75 per cent of the population with access to public transport, while cities like Baghdad have only 8.11 per cent coverage (Table 3).

79 UNDESA, 2018b.
80 WEF, 2017.
81 Deloitte, 2014.
82 UNHCR, 2022a

Table 3. Proportion of population that has convenient access to public transport for select Arab cities, 2020

City	Country	Percentage Share
Marrakesh	Morocco	74.79
Doha	Qatar	62.37
Yarim	Yemen	59.04
Sohar	Oman	52.86
Mila	Algeria	52.41
Rafha	Saudi Arabia	50.84
Zahle	Lebanon	49.00
Tunis (includes several cities)	Tunisia	48.49
Dubai (includes several cities)	UAE	41.21
Kuwait (includes several cities)	Kuwait	39.02
Alexandria	Egypt	35.98
Bahrain	Bahrain	21.23
Al Qadarif	Sudan	18.79
Amman (includes several cities)	Jordan	10.05
Baghdad	Iraq	8.11

Source: UN-Habitat, 2021. Data presented as the estimated share of urban population who can access a public transport stop within a walking distance of 500 meters (for low-capacity public transport systems ie. buses) and/or 1,000 meters (for high-capacity public transport systems ie. trains, ferries) along the street network.

While for some cities this may indicate public transportation shortfalls, it is also important to consider that some cities have a demonstrated preference towards private transportation solutions; this is due in part to cultural and behavioural preferences, climate suitability and convenience. Overall, this is an area that needs further research as it is currently hampered by the absence of reliable ridership data. Despite this, many cities throughout the region are currently undertaking major public transportation projects. In Riyadh, Saudi Arabia, for example, the Riyadh Metro, which is part of the King Abdulaziz Project for Riyadh Public Transport is set to open a six-line metro system spanning 176 kilometres with 85 stations in 2023.

As can be seen, there are a number of important projects are underway to mitigate public transportation shortfalls in Arab cities. In Tunis, TRANSTU, the city's state-owned transport authority, oversees a network of public buses as well as the Métro Léger tramway network and the TGM light rail line, which links downtown Tunis to the northern beach suburb of La Marsa. Over the years the network has been subject to upgrades and improvements. Additionally, Casablanca in Morocco has an elaborate public transport system centred primarily on a tramway line, which was inaugurated in 2012. A second tramway started operating in 2019 and connects working class neighbourhoods with the city centre. Observers have argued that the project is seen largely as a showcase development aiming to cement the city's image as a modern and forward-looking centre at the expense of the needs of its citizens.

MOROCCO
Modern tram in the centre city near Medina. Rabat-Sale tramway is tram system in Rabat and Sale. © Shutterstock

Dubai is known for having one of the most impressive public transportation systems in the region. Its much-lauded metro is considered to be the largest driverless metro system in the world. The city's transport system also includes a tram and monorail servicing its exclusive Palm Island development. Despite this, it still falls short in several areas. For example, the network does not cover the city as a whole and a Transit Oriented Development vision (TOD) is still yet to be fully implemented to integrate stations with their surroundings. Instead, there remains a heavy reliance on private vehicles and an extensive taxi fleet.

In terms of pedestrianisation, countries such as Egypt, Jordan, Palestine, and Lebanon still lack safe and accessible walking and cycling infrastructure which hinders the mobility of their citizens. This is a result of the lack of accessible sidewalks, traffic congestion and lack of safety in general.

While there are impressive infrastructure projects that are currently underway, it will be important for mobility strategies in Arab states to think beyond physical infrastructure and also promote improved urban form and greater consideration towards inclusion of vulnerable groups.

JORDAN
Centre for rental bicycles on the public beach promenade, near Aqaba Fort. © Shutterstock

A recent UNDP study "Designing Cities that Work for Women" noted that poorly maintained, dark, male-dominated spaces have negative impacts on women, making them feel unsafe or on edge, and often forcing them to take long detours, whereas lively, well-lit, mixed-use spaces often have a reassuring, inclusive effect.[83] Having integrated systems of mobility, pedestrian and cycling accessibility, will not only help to improve the urban form of Arab cities, but it will also assist in addressing some of the more prevalent underlying issues such as safety, poverty and inequality.[84]

Informal Transportation Networks

Informal transportation networks are prevalent in some Arab cities, especially in those of the Mashreq and Maghreb sub regions. Formal public transportation options do not always cover slums and informal settlements in Arab cities, therefore, informal means of transportation function within these areas, and in some cases link these areas with other parts of the city. This includes microbuses, tuk-tuks and sometimes even pick-up trucks that are not meant to carry people in a commercial manner. In Egypt, for example, in many cities, tuk-tuks are functioning within the informal area. There have even been reports of tuk-tuks being operated by individuals under the legal driving age, exposing the lives of both passengers and pedestrians to unnecessary dangers.[85] Nonetheless, the informal sector continues to represent a significant portion of passenger trips taken daily in the Arab urban contexts. While data on the informal sector is often scarce, previous studies have suggested that unregulated shared taxis make up to 60 per cent of trips in Sana'a, 56 per cent in Algiers, and 46 per cent in Damascus.[86]

These networks prevail in areas lacking decent formal public transportation, and therefore can act as indicators of unmet demand. In addition, they provide jobs and economic opportunity to many urban residents.

83 ARUP, 2022
84 Attari et. al. 2020.
85 CGTN Africa, 2017
86 El-Geneidy et. al. 2014.

Due to concerns around safety and quality of service, some governments in the region are making efforts to regulate and integrate these transportation modes. Due to their informal nature, these modes are operated solely based on the desires of the companies or individuals operating them – meaning that they tend to prioritise profits over standards of safety, emissions, or fair and high-quality service.

Transport Infrastructure in Conflict Countries

Mobility in countries that suffer from violent conflicts is already severely limited. Moreover, damages to transport infrastructure tend to compound problems in the population. In Syria, a 2017 report showed that 44 percent of roads in Aleppo were damaged.[87] As of 2015, All major road and bridge connections in Yemen were deemed to be destroyed, particularly in the northern parts of the country where conflict was rife. In Libya the quality of transportation has dramatically been affected due to the conflict, subsequently, the emergence of private transportation options has stepped in to fill the gap.[88]

Air transport has also been severely disrupted in conflict countries in the region. In Yemen, all airports have been extensively damaged and the largest airport in Sana'a has been inoperable since August 2016. Furthermore, the largest port of Yemen, Hodeida, was extensively damaged by the conflict and is only operating at 40 per cent of its total capacity. Whereas the port of Mocha has not been operational since January 2017.[89] The constraint of the port has severely affected the ability of the country to import goods for the population.

Mobility and COVID-19

The COVID-19 pandemic and the countries' measures to control it have had a huge impact on internal and international mobility. For example, countries such as Qatar and Jordan, quickly imposed severe international travel restrictions (by early March 2020), while others acted weeks or months later. Some countries stopped all entry of foreign citizens, whereas others banned citizens of specific countries, while some countries completely closed borders to stop the departure and entry of all people, including their own citizens. Quarantine measures were also introduced by some countries, requiring passengers entering a country to be quarantined in isolation for a minimum period (typically 10 to 14 days) immediately upon arrival.

In Cairo and Alexandria in Egypt, for instance, the COVID-19 community mobility report by Google (2020), which measured the change in mobility patterns, revealed that mobility patterns for amenities like restaurants, cafes, shopping malls, parks, museums, libraries, and cinemas decreased by -77 per cent below the baseline in Cairo and -67 percent in Alexandria. Mobility directions for retail establishments such as supermarkets, food markets, stores, and restaurants declined by -41 percent and -25 percent, respectively. Additionally, in Cairo and Alexandria, the mobility patterns for locations like squares, parks, and public beaches declined by -76 and -34 per cent. While for the workplace, mobility directions reduced by -75 percent for Cairo and -67 percent for Alexandria. This was largely due to 'work from home' protocols owing to the pandemic.[90]

87 World Bank, 2017b.
88 World Bank, 2020a.
89 World Bank, 2020b.
90 Google, 2020.

As a coping mechanism, throughout the region, people started shifting towards alternative modes of transport including bikes instead of cars or public transit during the pandemic. Bicycle use, for example, has surged in Amman, Jordan. Additionally, the number of persons who enquired about bicycles in stores or on social media sites revealed a marked rise in the demand for bicycle sales and rentals. To accompany this, the government rotated between odd and even licence plates throughout the week, and there was even a complete lockdown on Fridays.[91] During the curfew, the government of Jordan delivered bread and basic groceries to citizens' homes using public transportation buses. This was successful in certain communities and unsuccessful in others.[92]

In early 2021, the Municipality of Tyre in Lebanon launched two bike-sharing stations through a city-to-city partnership with the City of Zurich and facilitated by UN-Habitat. To date, bikes have been rented by more than 450 people for recreational purposes, including tourism, shopping, sports and more. Additionally, bikes provide users an alternative mode of transportation that is not only green but can also decrease their exposure to COVID-19, while reducing traffic congestion, accidents, and pollution in the city.[93]

Housing as Infrastructure

Access to affordable housing is an issue that is faced by citizens and residents of many Arab countries. International human rights law recognizes a right to an adequate standard of living, including adequate housing.

Despite this, a notable percentage of the population are still living in slums and informal settlements that are widespread in many Arab cities. This acts as a living proof of the lack of formal affordable housing.

In countries that have experienced continued conflict, high rates of poverty and pervasive political instability such as Libya, Syria, Sudan, Somalia, Comoros, Yemen, Lebanon, and Iraq – these trends have translated into pervasive slums and informal settlements, which comprise 50 to 95 per cent of total urbanisation in some instances.[94] The *2012 State of Arab Cities Report* indicated that the proliferation of slums and peri-urban informal settlements is the result of a scarcity of serviced land and affordable housing options. Slums and informal settlements in the region include older, deteriorated buildings embedded within the existing urban fabric. Another typology in the region is housing constructed of durable materials, often as multi-story buildings on former agricultural land. Their informality is generally the result of their unplanned nature and lack of registered titles. The residents of these settlements typically lack connection to sewerage but, overall, have access to potable water, electricity, and some form of sanitation.[95]

Housing in Maghreb Subregion

While some countries recognize the significance of providing adequate shelter to their citizens there is an increased focus on high-end housing which comes at the expense of affordable homes.

91 Roya News, 2020.
92 Elmouelhi et al, 2021.
93 UN-Habitat, 2022b.
94 UN-Habitat, 2020a.
95 UN-Habitat, 2012.

KINGDOM OF BAHRAIN
Bahrain. © Fatema Al Shaeel.

In Morocco for example the housing deficit was around 400,000 homes at the end of 2016, translating into a need for 120,000-140,000 homes to be added annually.[96] A flagship project to improve living conditions in the countries' urban centres has been the *Villes Sans Bidonvilles* (Cities Without Slums) program, which was launched in 2004 with the goal of eliminating slums and informal settlements from the Kingdom's major cities.[97] While laudable in terms of providing concrete results, urban researchers have noted resistance by residents to comply with resettlement schemes, forcing the government in some instances to compromise by changing the location of alternative housing to be closer to urban centres; it is thus in many ways a successful program that took into consideration actual needs of city inhabitants rather than forcing a top-down solution.[98]

Housing in Mashreq Subregion

The housing situation in Egypt is similarly influenced by the proliferation of slums and informal settlements or *Ashwa'eyat*. Efforts have been underway to rectify these problems. One project that has received media attention is the Asmarat housing project in Cairo's Muqatam district. Based on the published National Housing Profile (2016) and Strategy (2020), as well as the cooperation between UN-Habitat and the Egyptian Government, a shift from area specific development to the participatory city-wide urban upgrading approach was endorsed. The new integrated approach supports linking potential areas to challenges in the city within an inclusive and sustainable mechanism allowing for cross financing and advancing SDGs in the city.

96 OBG, 2018a.
97 Lall et. al., 2019.
98 Attia, 2019.

Accordingly, and based on the new and endorsed approach, the previously known Informal Settlements Development Fund (ISDF) was transformed into the "Urban Development Fund" (by the PM Decree1779/2021 of establishment in August 2021) reflecting a more integrated role in urban upgrading and enabling possible more inclusive financial tools for development. The new approach is included in the review of the building law 119/2008 and integrated in Egypt's cities strategic plans preparation and updating terms of references.

Despite the tireless efforts of decision-makers in Jordan to implement policies that encourage the construction of affordable homes for the poor, it is still easier to find expensive high-end homes as opposed to more affordable alternatives. According to World Bank data, 26 per cent of houses have at least two people per room, while 5 percent have at least four. Consequently, this has resulted in young people postponing important life milestones such as marriage due in part to the fact that they are unable to find an affordable place to live. The government has also set the minimum size for new apartments at 110 square meters, which is larger than most people are able to afford. Moreover, large parts of Amman are zoned for high-end units, even though the market necessitates affordable housing.[99] The situation is exacerbated with the influx of Syrian refugees who face serious constraints in accessing adequate housing and contribute to straining the already limited sector of affordable housing (Box 9).

Box 9. Housing Challenges for Syrian Refugees in Jordan and Lebanon[100]

Although, in contrast to Jordan, Lebanon has rejected the encampment policy for Syrian populations fleeing the war, the housing challenges of Syrian refugees in the two hosting countries of Jordan and Lebanon are quite similar. A large proportion of Syrian refugees in both countries are living in established residential areas. In Jordan, around 80 per cent of refugees live outside the camps, out of which around 20 per cent of Syrians shelter in poultry houses, garages, and tents; and 1 per cent live in informal tented settlements. In Lebanon 73 per cent of the refugees reside in residential buildings, 17 per cent in informal tented settlements and 9 per cent in non-residential structures such as garages, workshops, and construction sites.[101]

Housing options for refugees in Lebanon and Jordan often do not meet the minimum standards of security of tenure, habitability and affordability. In Lebanon, the average monthly rental fee, whether for an apartment or a makeshift tent, is estimated to be $183, which is close to the $206 monthly income for male refugees and significantly more than the $159 monthly income for female refugees. In Jordan, according to a UNHCR survey, Syrian refugees were paying an average monthly rent of $206, or two-thirds of what they made in monthly income. With the absence of a rental agreement, Syrian refugees in Jordan and Lebanon remain vulnerable to sudden eviction. The increasing demand for housing rental has distorted the market. Between 2012 and 2013, increased demand for rental units in Jordan's low-income areas drove up prices by a reported 44 per cent. This may be a factor contributing to the rising resentment toward refugees in local communities.

99 World Bank, 2018b.
100 Yahya, 2018.
101 Achilli, 2015.

IRAQ
In Heet Water network extension. © UN-Habitat

In Baghdad, Iraq, it is estimated that around 187,000 units, representing around 31 per cent of the city's housing stock, are inadequate.[102] The housing shortage, the scarcity of serviced urban lands and lack of construction materials have led to increases in housing costs. [103] With a poverty level of around 22 per cent and an inefficient financial system, offering an affordable house has become extremely difficult for most people. [104] Within these circumstances, informal housing has been growing. A similar situation can be seen in other cities such as Basrah and Hillah. Within the efforts to manage these problematic conditions, the Iraqi National Housing Policy was established in 2010 and updated in 2017 by the Iraqi government in cooperation with UN-Habitat.[105] The policy advocates for a new approach to managing the housing sector and to provide decent housing to Iraqi citizens.

Housing in GCC Countries

Housing challenges are somewhat different in the GCC region. Developers have continued to focus on high-end developments, catering to more luxury segment of the market. This poses an affordability problem for many residents. Recognising these issues, various governments have begun to prioritise increasing the availability of affordable housing. In 2011, the Kingdom of Saudi Arabia (KSA), for example, called for the construction of 500,000 affordable properties for citizens, and in 2014 the Ministry of Housing created a program called "Sakani", which was designed to increase the proportion of home ownership, encourage private sector involvement in developments and provide high quality housing services, including off plan residential units, developed plots and subsidized housing loans.[106] The results so far have been successful, with housing options catering to a wider range of different socioeconomic groups.

Housing policies pertaining to low-income, low-skilled workers are of importance in the region given their large numbers. Typically, they are housed in compounds and labour camps, often relegated to the peripheries of cities. There they live in repurposed old apartment buildings and villas, previously occupied by nationals. [107] Conditions are crowded and such neighbourhoods are often dilapidated with lower quality housing stock and limited public transportation options. Housing affordability is one of the major challenges in Dubai, where the local housing market is often shaped by foreign investment and speculative investors. Despite this, new solutions to affordable housing are emerging in the GCC sub-region, presenting new models for other Arab cities (Box 10).

102 Al-Hafith, B.K, Bradbury, & de Wilde, 2018.
103 Hassan Ali, 2014; Majdi, 2013.
104 World Bank, 2011.
105 UN-Habitat, 2017b.
106 Guest Author, 2018.
107 Al-Nakib, 2016; Bruslé, 2010; Gardner, 2010; Khalaf, 2006.

YEMEN
Two men shake hands at the market in Sana'a, Yemen. © Shutterstock

Box 10. Affordable Housing Solutions in the GCC

With a persisting shortage of housing, one of the primary objectives in GCC countries has been to narrow the supply-demand mismatch in the housing sector. A 2019 report on 'New Trends in Affordable Housing in GCC' states that GCC countries' governments and private developers are "increasingly recognising the demand for affordable housing in the region and various policies and schemes have been established to achieve this goal." Dubai, for instance, has taken a step forward and introduced a new low-cost housing policy for both UAE nationals and expatriates, aimed at addressing the gap between income classes. The Emirate targets collaboration with property developers and redevelopment of old residential areas to meet its plans.[108] This policy, if implemented, will contribute to addressing the needs for affordable housing for an increasing number of low waged migrant workers, who have chosen to rent in more affordable Emirates and commute to Dubai, thereby creating additional social and environmental problems.

In Saudi Arabia major reforms in the housing finance market have been introduced. The Real Estate Development Fund (REDF) was reformed to target low-income groups and first-time home buyers in addition to providing low interest loans through commercial financial institutions. "Sakani", a digital platform within the Saudi Ministry of Municipal, Rural Affairs and Housing, allows Saudi citizens to electronically review, choose and book available land.

108 Orient Planet, 2019.

Box 11. Social Housing in the Kingdom of Bahrain

Very few countries have served as many citizens with their social housing programmes as Bahrain. Since the 1970s, the Government has provided housing services benefitting a large proportion of the Bahraini population. These achievements have been greatly enabled by a policy framework which has informed and guided Government intervention.

In 2002, through the Bahrain Housing Policy and Strategy 2022, Bahrain recognized the need to make the delivery of social housing services more sustainable and at the same time move from being a direct provider of housing services to a more prominent role as a regulator and facilitator, as well as an entity that stimulates Public Private Partnerships (PPPs). The Ministry of Housing and Urban Planning is responsible for implementing the housing policy through strategic partnerships, both within the financial and construction sectors and is building the foundation for a sustainable social housing system that is designed to not only meet the needs of Bahrain's fast-growing population, but also support the Kingdom's future economic growth and prosperity.

The rapidly expanding population presents Bahrain with a number of challenges, including the need to increase social housing programs delivery. The compound annual population growth rate for the years 2000 to 2021 was 4%. The Kingdom has been responding to this pressing challenge through the adoption of various measures in order to meet the related requirements.

Madinat Salman, one of the largest social housing projects, is built on a group of 10 reclaimed islands on the northern coastline of the Kingdom of Bahrain. The site covers 740 hectares and includes 12,722 dwelling units with the capacity to support a total residential population of 100,000 citizens.

Source: Fatema AlShaeel, 2022.

Heritage and Cultural Infrastructure

The Arab region has some of the world's most admired heritage sites. Close to 100 have been recognized by UNESCO and accorded World Heritage Site Status.[109] Accordingly, there have been efforts to preserve and upgrade such cultural infrastructures – from the old city of Tunisia, Algiers Qasbah, to Cairo's old mediaeval quarter. The GCC has its share of historic preservation projects including Diriyah, located in northern Riyadh. Diriyah is the old seat of the Saud dynasty and was recently restored and opened to great acclaim.[110] Bahrain has been engaged in a sustained effort at preserving its built patrimony, which includes Muharraq, near Manama. The recently opened Pearl Path visitor centre is an example of integrating modernist architecture into a historic urban fabric, while in the process revitalising the area.[111]

109 UNESCO, n.d.

110 Diriyah Gate Development Authority, 2019.

111 Karimi, 2019.

UAE
Public playground in Masdar Central Park in Abu Dhabi. © Shutterstock

In other parts of the region, civil wars and bombing campaigns have seriously affected cultural heritage. For example, in Syria's Aleppo according to UNESCO estimates, more than 30 per cent of its ancient market has been destroyed.[112] Other affected monuments and sites include the Citadel, Madrasa al-Sultaniya, and the Umayyad Mosque. Such destruction has reached the old city of Sana'a, prompting UNESCO to deplore such acts and declaring that the site "represents the soul of the Yemeni people."[113] Despite this, there have been intermittent reconstruction attempts, which includes the National Museum in south-western Taiz, the country's third-largest city. The effort was funded by the British Council's Cultural Protection Fund, a private donor, and the World Monuments Fund (WMF). [114]

This is part of the 'Post-war Reconstruction and Rehabilitation in Yemen' project which will be managed and implemented by the Dawan Mud Brick Architecture Foundation in partnership with the Office of the Governor of Hadramout. [115] In Libya's Old Benghazi district, many of the buildings, constituting the cultural heritage of the city and serving as a cornerstone of the Libyan identity, were destroyed or extremely damaged.[116]

In Libya, the city of Benghazi's historical district experienced severe damage during the conflict and the population has been subject to large-scale displacement. The housing stock, in particular, requires immediate attention in addition to damaged water lines and sewage networks.

112 UNESCO, 2017.
113 UN News, 2015.
114 McGivern, 2020
115 Damluji, 2020
116 Aita, 2018

Similar to other conflict cities, substantive informal constructions have been erected during the conflict to cope with the population displacement.[117] A similar situation is unfolding in Mosul, Iraq, which has been suffering from an acute housing shortage and public utility crisis in the form of frequent power cuts and water shortage. Most significantly there has been a systemic destruction of the built environment and cultural heritage which includes the gates of the ancient city of Nineveh and the Old City. Rebuilding such structures will require massive investment.[118]

The construction of Museums and Art Centres is another facet of cultural infrastructures that over the last decade has seen a plethora of projects opened across the region, particularly in the Arabian Gulf. Their museums have become an important tool in projecting an image of modernity and progress. They include the Louver-Abu Dhabi, which opened in 2017. While interesting architecturally, it is placed at a distance from the city, on Saadiyat Island. Others are better integrated with their respective cities including the National Museum of Qatar and Kuwait's Jaber Al Ahmad Cultural Center.[119]

Sporadic efforts throughout the Arab world's urban centres attest to a desire to capitalise on their urban heritage and their status as the Arab world's cultural heart. For example, in Tunis, the City of Culture project, which opened in 2018, is considered the largest national cultural project in Africa. The overall cost – carried by the Tunisian government – was about $62.6 million. It is located in the heart of the city, on Mohamed V Street.[120]

Other impressive cultural centres in the region include the soon to be opened Grand Egyptian Museum (GEM) in Cairo, considered to be the world's largest archaeological museum. The project began in 2002 and was supposed to open in 2020, however, due to the COVID 19 situation, it was delayed to 2022.[121] The total estimated cost is $1 billion; USD $300m of which were financed from Japanese loans, the remaining came from the Egyptian government, donations, and international funds. Another significant project is the Palestine Museum in the West Bank in the city of Birzeit. Designed by the same architects as the GEM, its cost is estimated at $30 million, with funding coming from Palestinian families and institutions, the Bank of Palestine and the Arab Fund for Social and Economic Development.[122]

Based on its Vision 2030 Framework, the Kingdom of Saudi Arabia, has recently started to promote culture as an important aspect of urban life. To achieve its objectives, 'the General Entertainment Authority' was established with a mandate to construct cultural facilities and organise cultural events and festivals. In addition to this, the newly created Quality of Life program aims to increase the number of entertainment and cultural activities and attractions throughout the Kingdom.

Public Space and Green Space

A key element of social infrastructure is green and open space – in the form of parks, plazas, and walkable streets. Their presence provides a necessary social function allowing people to interact and socialize, but it also asserts peoples' "right to the city". The ability to come together, debate and openly discuss key issues are essential components of a healthy urbanity.

117 Aita, 2018.
118 UN-Habitat, 2016a.
119 Elsheshtawy, 2019.
120 Xinhua, 2018; and Middle East Monitor, 2018.
121 McGivern, 2018.
122 Aga Khan Development Network, n.d.

EGYPT
A group of children playing in a water fountain in Al-Azhar Park in celebration of Sham El-Nessim, an old spring festival celebrated by the Egyptians. © Shutterstock

The social, economic, health and environmental well-being of cities are significantly influenced by their public space. Since 2016, UN-Habitat has supported the 'Public Spaces in the Arab Region' initiative. To promote sustainable development and ultimately attain SDG 11, target 11.7, the initiative has been focused on upgrading public spaces and promoting participatory planning approaches in the process.[123]

The events of 2011, in which citizens throughout the region came together and called for change all occurred in, and were facilitated by, urban public spaces. However, like other urban centres around the world, public spaces have been increasingly subjected to privatisation.

Such processes strip citizens of their right to the city and instead social interaction is relegated to indoor and privatized settings. Yet as the World Bank recently asserted, well-conceived, people-centred urban public spaces have vast potential to become assets that cities can leverage to transform the quality of urban life and improve city functionality.[124] As such, public space should not be viewed as a luxury good, but instead as an essential component of a functional city.

To further understand the extent of the problem, one needs to look at public space indicators including the international standard of the percentage of the urban population with access to open public space within a 400m walking distance.

123 Helmy, 2021.
124 Kaw et. al., 2020.

UN data suggests that the range in the region's major urban centres is between 91 per cent (Tozeur, Tunisia) to less than 20 per cent for some cities (Table 4). Compared to well-known public space cities, this is comparatively low. In Hong Kong, for example, the proportion is 93 per cent.[125]

These numbers, however, need to be taken with caution. The mere presence of an open space does not necessarily correlate with it actually being accessible. In the case of Abu Dhabi which seems to have the best accessibility rate, observations on the ground suggest that in many instances these settings remain empty and unused or are not accessible to everyone.

Table 4. Proportion of population with access to open public space for select Arab cities, 2020

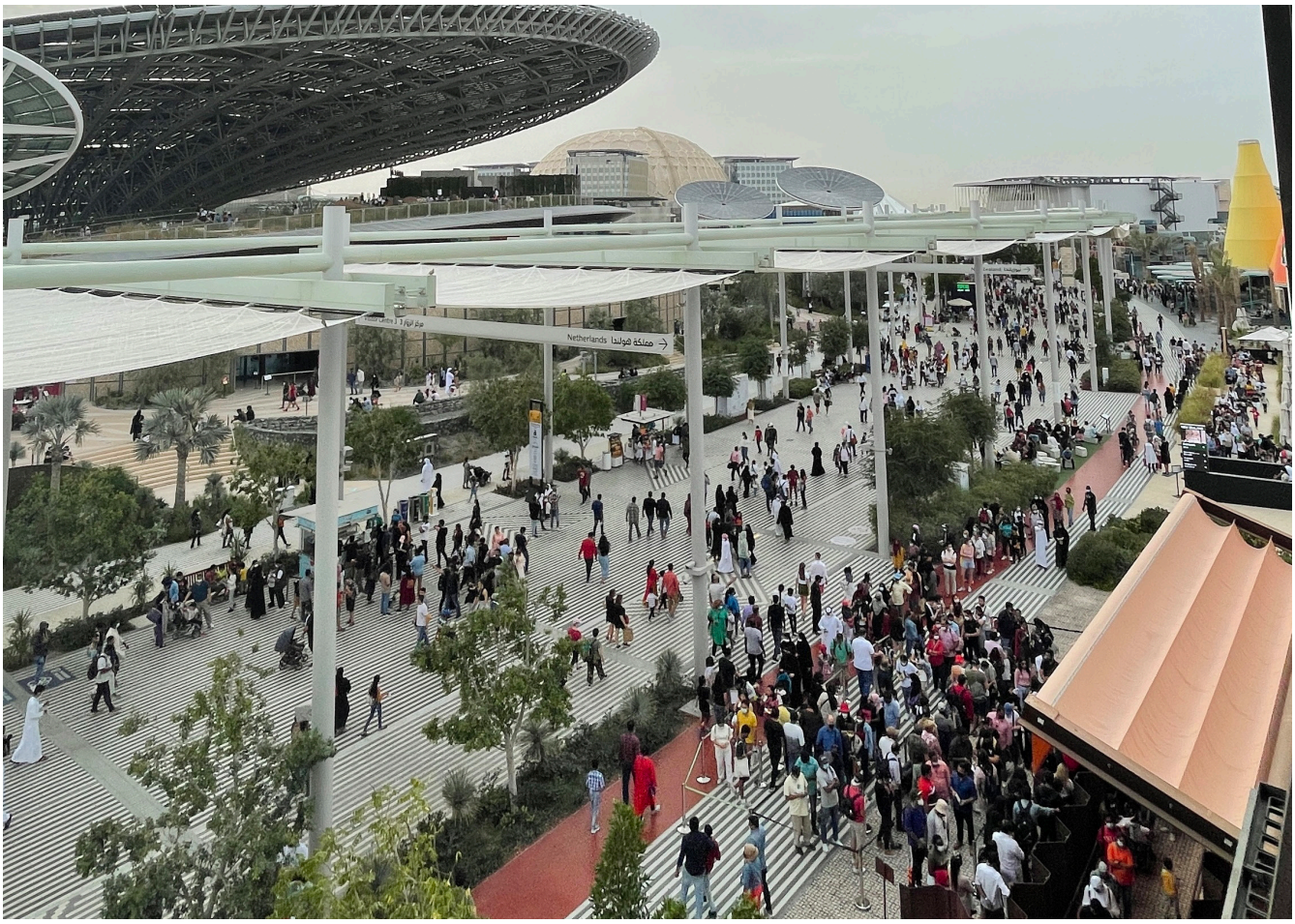
City	Country	Percent Share
Tozeur	Tunisia	90.96
Al Fujayrah	UAE	82.32
Mila	Algeria	81.60
Tripoli	Lebanon	72.81
Al Qhurdaqah	Egypt	72.27
Azrou	Morocco	69.87
Al Qadarif	Sudan	67.15
Rafha	Saudi Arabia	53.79
Adan	Yemen	51.74
Kuwait	Kuwait	49.42
Bahrain	Bahrain	45.19
AlKhor	Qatar	41.49
Amman (Includes Az-zarqa)	Jordan	33.88
Baghdad	Iraq	20.33
Sohar	Oman	18.19

Source: UN-Habitat, 2021. Data presented as the percentage share of urban population who can access an open public space within a walking distance of 400 meters along the street network.

Other metrics pertain to the availability of green space per capita. The World Health Organisation (WHO) recommends a minimum of 9m^2 of green space per individual with an ideal value of 50m^2 per capita; accessibility is also considered. The standard, however, is 7m^2 of green space per capita within a 500 meters walking distance. The Arab world in general falls well below such standards. Due to its density and private developer-driven construction since the civil war which has limited provision and maintenance of green space, Beirut records a measure of 0.8 m^2. Baghdad registers a measurement of 3.19m^2, while Damascus comes in at 2m^2.[126]

125 Chow, 2018.

126 Makhzoumi, 2016



UAE
Public Space in GCC, Dubai Expo. © Marwan Abdulla

Elsewhere in the region, ratios are higher. In Algeria the "Schéma National de l'Aménagement du Territoire" recognizes and gives priority to improving the living environment and preserving public spaces as a necessary step towards eradicating social inequalities. Its capital, Algiers records a figure of 6m^2 of green space per inhabitant.[127] Whereas, Rabat has a figure of 20m^2 per capita, which is considered the highest in the Arab world.[128]

There are also numerous initiatives aimed at increasing the number of urban parks. For example, in Amman, 'The Green Amman 2020 Initiative' was launched in 2014 to rehabilitate existing open spaces and create new ones in areas where they do not already exist.

According to the Greater Amman Municipality, the city has 145 parks and 2.5 percent of the metropolitan area consists of green space. The Khartoum State Structure Plan (2008-2033) includes proposals for the creation of larger regional parks in rural forested areas of the State, as well as converting an abandoned railway station into a park and upgrading Omdurman and Al Lafa markets in urban Khartoum.[129] With respect to the GCC, in Doha there is an overall environmental strategy aimed at the expansion of open green spaces. Tree-lined corridors, rather than large open parks, mark the government's primary approach to greening. [130]

127 Republic of Algiers, 2014.
128 The Grid, 2014.
129 UN-Habitat, 2017c.
130 UN-Habitat, 2017c.

Throughout the region, the focus appears to be on parks as aesthetic objects, rather than spaces of social gathering, with examples of some parks charging entry fees, restricting access to single males, and erecting fencing to keep some parks private. Some countries have begun to recognize the important role of accessible and open public spaces and have therefore taken action to mitigate such exclusionary approaches and increase access. Abu Dhabi, for instance, is an example of a city that has extensive plans for creating vibrant and inclusive public spaces for its people. Bahrain's initiative is an afforestation approach to increase greening throughout the country (Box 12). Additionally, Riyadh, has been quite innovative in the implementation of its green agenda through the Green Riyadh initiative, which is in the process of transforming the city's urban form and making it more liveable through the provision of green infrastructure and accessible public spaces (Box 13).

Box 12. Bahrain's National Plan for Afforestation: Building Greener Cities

The Bahrain 2030 National Planning Development Strategy, developed in 2007, highlighted the limited access to public green spaces in relation to the size of the population, emphasizing the need for enhanced urban greening.

Most recently, at the 26th United Nations Climate Change Conference of the Parties (COP26), Bahrain made ambitious commitments to the global climate goals, notably to reduce emissions by 30 percent by 2035 and reach net zero by 2060. The 2035 targets also include carbon removal solutions by quadrupling mangrove coverage, doubling tree coverage in Bahrain, and directly investing in carbon capture technologies.

A National Plan for Afforestation (2022 -2035) following the announcements at COP26 aims to increase the tree count from 1.8 million trees to 3.6 trees by 2035. The Ministry of Municipalities and Agriculture is leading the afforestation plan and has mobilized the support from the private sector and civil society. In 2022, the Kingdom planted 140,000 trees, exceeding its annual target, and met its annual goal to expand mangrove coverage.

The next phases of the programme will focus on optimizing the location of trees, landscape design and the impact greening on urban cooling and wellbeing.

QATAR
Selling traditional garments, spices, handicrafts, and souvenirs in Souq Waqif, Doha.

Box 13. Green Urbanism in Riyadh

As previously mentioned, Riyadh has one of the lowest percentages of green spaces per capita in the region.[131] According to UN-Habitat the amount of land devoted to parks, squares and other public spaces in Riyadh has fallen by 80 per cent over the last century.[132] Moreover one of the notable aspects of its built form is the difficulty of navigation on foot; this lack of walkability within the local climate makes it difficult in many ways.

To overcome this, there has been a considerable effort at investing in green infrastructure which was initiated under the municipalities' 'Humanization Program' (1997-2012). It aimed to mitigate this climate friendly public space shortfall through the provision of walking paths and the redevelopment of streets to cater to pedestrians. Building on this previous success, as part of Vision 2030, Green Riyadh was announced. This is considered one of the most comprehensive public space projects currently taking place in Saudi Arabia. The project consists of planting more than 7.5 million trees across 3,330 neighbourhood gardens, 43 parks, 9,000 mosques, 6,000 schools, 64 universities, 390 healthcare facilities and 1,670 public facilities in Riyadh. The trees will also line 16,400 kilometers of streets and roads, 2,000 parking lots, 1,100 kilometers of green belts, 175,000 plots of vacant land and 272 kilometers of valleys. The project contributes to the Saudi Green Initiative which aims to establish more than 541 square kilometers of green space by 2030.[133]

While these indicators are useful for offering a snapshot and a broad framework for examining the state of green urbanism in the region it is equally significant to look at actual projects and how this desire for openness and sociability has been implemented on the ground. The GCC for example has been active in terms of provisions for urban parks and open spaces for its citizens; the extent to which these are accessible for all is questionable as noted above. For example, the presence of security guards have been used to inhibit formation of spontaneous activities, a key component of a truly open and inclusive public space.

Such markers are pervasive in what has become known in urban planning jargon as POPS (privately owned public spaces).[134]

Leaving no one behind, gender equality is still a priority issue that needs more attention in Arab cities. When we consider access to using public space, it can be argued that women and girls lack equal rights to use public space, much of which is due to traditions and conservative norms within paternal communities. Research has shown that women's use of the public realm is affected by how inclusive and accessible it is. Limited mobility options, gender bias, ageing and disabilities as well as fear of violence can all reduce the willingness of women to enjoy public spaces.[135]

131 Almayouf, 2013.
132 UN-Habitat, 2017c.
133 Kingdom of Saudi Arabia, Vision 2030
134 Huang & Franck, 2018.
135 ARUP, 2022

KINGDOM OF BAHRAIN
Bahrain. © Fatema Al Shaeel.

Observations from Arab cities in several countries including Egypt, Syria, Iraq and Jordan, show that public space as a concept needs to be taken more seriously while planning or designing neighbourhoods. In the cases where public spaces are available, they tend to be almost always dominated by men. Recognising these difficulties, UN-Habitat's Global Public Space Program, has been actively working in the region to rehabilitate public spaces through participatory approaches to ensure that they are secure and accessible for the most vulnerable populations, particularly women and children while also trying to understand the challenges they face through conducting more surveys and research in that regard.[136]

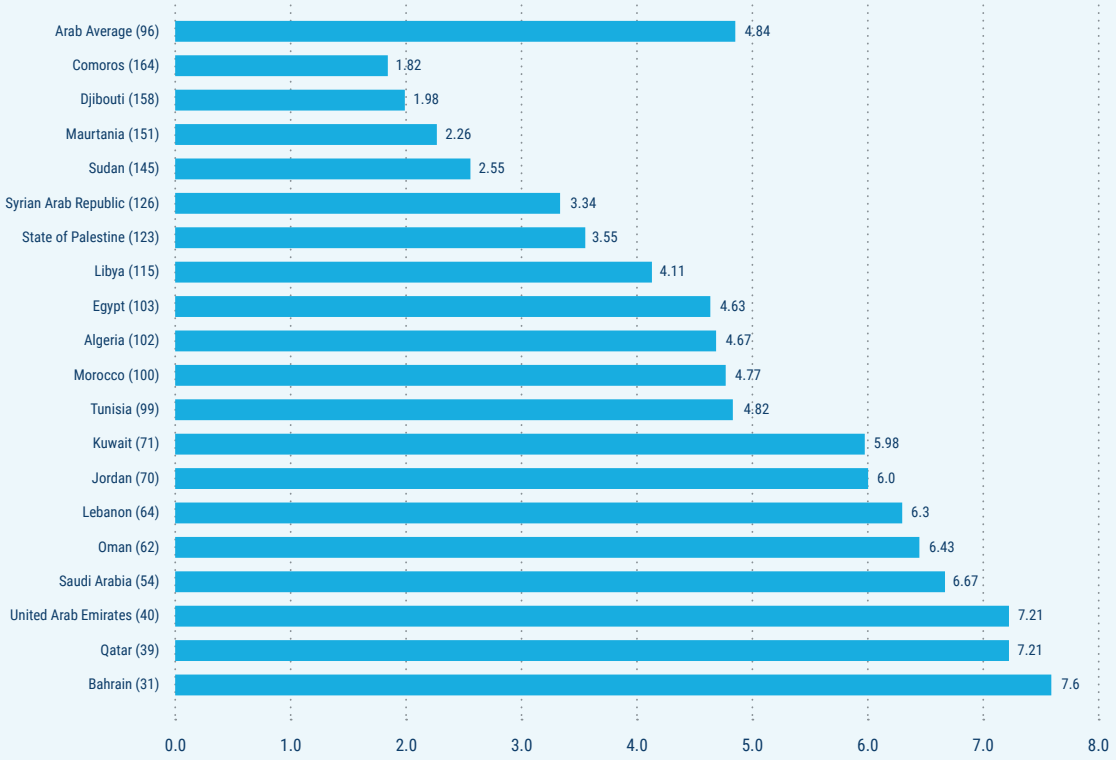
There are examples, where progress is being made in terms of improving social inclusion. In the Gaza Strip, for example, Palestinian public space workshop participants had the opportunity to use digital tools for community engagement, allowing for the incorporation of women and girls' ideas in reconstructing key public spaces that have since benefited around 100,000 people in Gaza. Also, in Palestine, UN-Habitat contributed to the HAYA Joint UN Programme, which seeks to eliminate violence against women in the West Bank and Gaza Strip, through the provision of safe and accessible public spaces for these groups. As part of this programme, UN-Habitat has also undertaken a city-wide public space assessment and women's safety walks in five municipalities in the West Bank and Gaza Strip to assess women's experiences and challenges in accessing and using public spaces and launched the process of preparing a National Public Space Policy.

IT Infrastructure

A key factor in determining the extent to which a country or region can develop its economy is the quality and availability of the internet. The most straightforward measure is the composite Information and Communication Technology Development Index (IDI), which is calculated by the International Telecommunication Union. Figure 13 shows the scores and ranks for the year 2017 among the 19 Arab countries where data is available.

136 UN-Habitat, 2021.

Figure 13. IDI Global Rank Value for 19 Arab countries, 2017



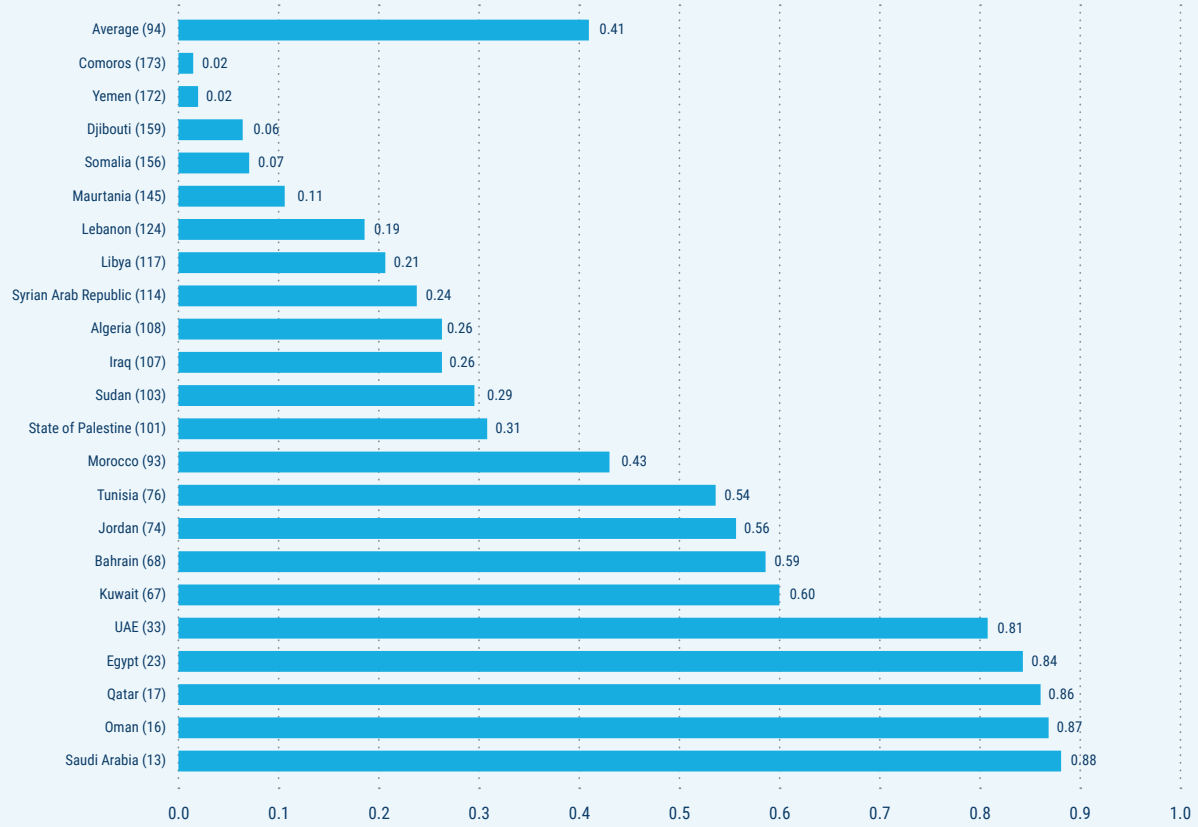
Source: ITU 2018

According to this, the average rank among Arab countries is 96, which is in the bottom half of the world's countries. Moreover, there is a significant amount of variation, with the highest ranked Arab countries doing quite well (Bahrain 31, Qatar 39), and the lowest ranked Arab countries having drastically lower scores (Djibouti 158, Comoros 164).

The importance of the internet as a crucial infrastructure component increased during the COVID-19 pandemic. Public safety measures, such as the closure of schools and activities, pushed the general public to have to use online tools and programs through education portals, remote working, as well as the digitalization of activities, such as virtual tours, online visits to museums and other digital attractions. This increased the need for digital infrastructure (network and cables, etc.), as well as a necessitated awareness and knowledge of those different tools.

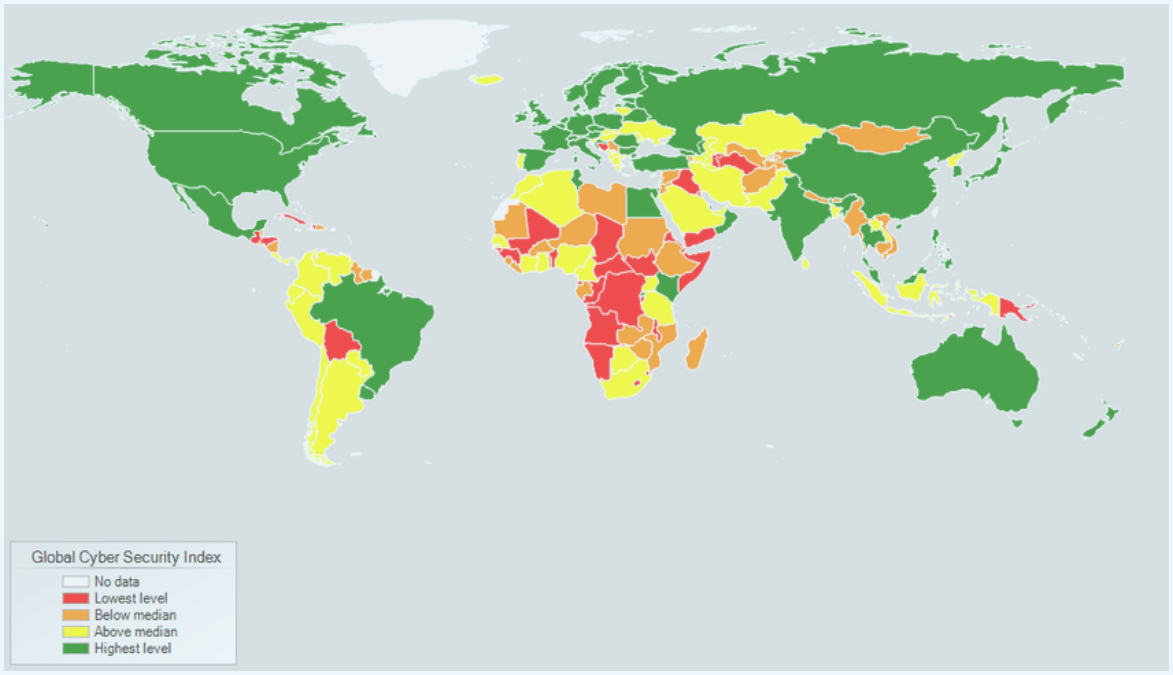
The pandemic made digital tools and technology an integral part of everyone's life and in such circumstances, the need for cyber security became of even greater importance. The problems stemming from private concerns are magnified by the possibility of data breaches. Moreover, malevolent actors who gain access to sophisticated electronic systems, such as the sharing economy, can cause significant disruptions in everyday life. This can be particularly acute in sectors such as finance and health. Figure 14 shows the cybersecurity index score for the Arab states with an average rank of 94; while a handful fall above the regional average and are considered well protected, some countries fall below, implying greater degrees of vulnerability. Compared to other parts of the world, the Arab region is comparatively vulnerable (Figure 15).

Figure 14. Global Cybersecurity Index of Arab region, 2020



Source: ITU, 2020

Figure 15. Global Cybersecurity Index Map, 2022



Source: Bouveret, 2018.

Alongside the increasing popularity of ICT in the region, there has been a growing interest in smart city projects. While historically smart city interventions were confined to infrastructure interventions, such as the installation of sensors and surveillance equipment, the conversation has now progressed and there is a growing interest in what is being referred to as people-centered smart cities. People-centered smart cities aims to leverage data, technology and services for a common good, delivering the inclusive and sustainable cities that are needed in the 21st century. In 2022, UN-Habitat and the Madinah Regional Development Authority put in place plans to co-organize the Smart Madinah Forum 2023 to bring together experts from around the world to discuss the role of innovation and technologies in promoting sustainable development and how it can be used to improve the quality of life for urban residents. While the increasing awareness around the important role that ICT and Smart City Approaches can have on solving urban problems and improving the lives of urban residents is commendable, there are still challenges that need to be overcome. Consequently, there is a need for policymakers to plan for and make greater investment in promoting and protecting basic ICT infrastructure, as well as to put strategies in place for the public and private sector to work together. Given the diversity of ICT infrastructure needs in the region, there is also great opportunity for cooperation among countries.

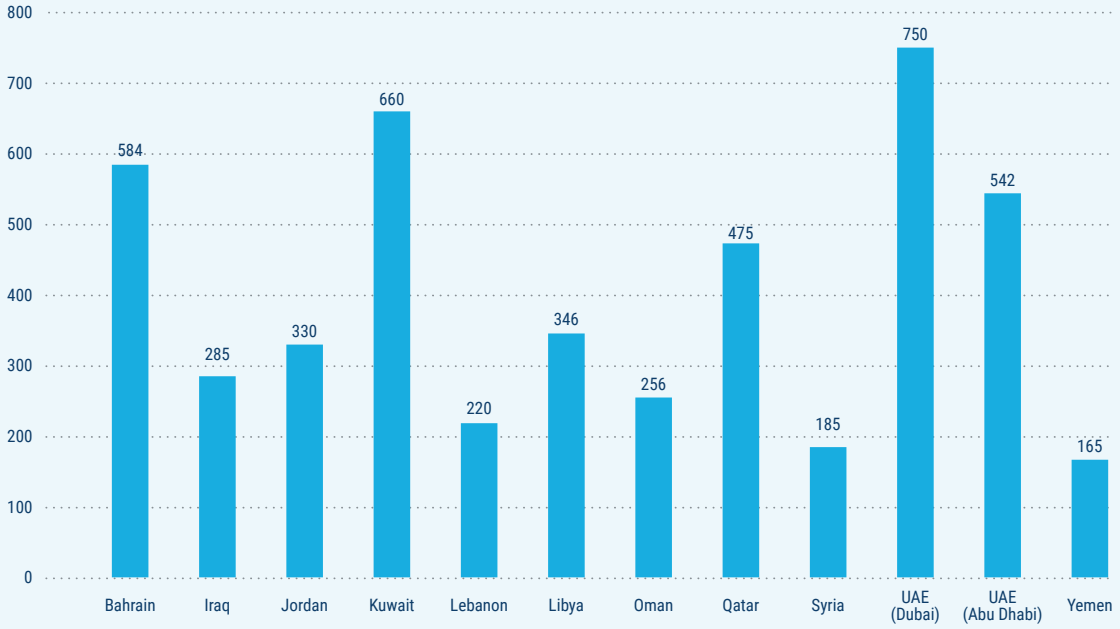
Waste Management

According to the World Bank's ***'What a Waste'*** report, by 2030, the world is expected to generate 2.59 billion tonnes of waste annually. In the case of the Middle East-North Africa region, it generated 129 million tonnes of waste in 2016, at an average of 0.81 kilogram per person per day; while the waste generation rate in cities is significantly higher than rural areas, at an average of 1.38 kilograms per person per day.[137] According to Figure 16, UAE is the largest contributor to solid waste generation in the region, contributing approximately 750 kg per person per year, while Syria and Yemen are among the lowest contributors, generating 185 and 165 kg per person per year respectively. More than 55 percent of waste produced in the region is composed of food and greenery.

With an average of 90 per cent of waste being collected in urban areas, waste collection coverage is lower in rural areas. Despite its numerous adverse impacts on the environment, open dumping remains the most prevalent method for waste disposal, accounting for more than 50 percent of the overall generated waste in the region. It is common that the residents in rural areas and many informal areas that lack a regular waste collection service burn their waste in the streets to get rid of it; this causes high levels of air pollution. Other disposal techniques include sanitary landfills (common in Morocco and GCC).

137 World Bank, 2018c.

Figure 16. Generation of solid waste by country in the Arab Region, 2018



Source: World Bank, 2018a.

Waste-to-energy solutions are gaining in importance. With Qatar being the first to initiate a waste-to-energy programme, generating over 30 MW of electricity from its Domestic Solid Waste Management Center in Doha, the other five GCC countries are following with planned energy alternative solutions. Another example is the Yemen Waste-to Energy plant in Lahij governorate, a partnership with UNDP Yemen, the Swedish International Development Agency, the SDG Climate Facility Project, the European Union, and the Yemeni Private sector.[138] It is expected to reduce 70 per cent of the waste going to the landfill and generate affordable electricity at 16 cents per kWh compared to 160 cents per kWh for fossil fuel.[139] Systematic waste management procedures also have the added benefit of improving air quality, which is a challenge for cities throughout the region. In addition, stable clean energy sources are imperative to satisfy increasing demand in the Arab region and to protect the environment.

Although it was passed in 2018, Lebanon has not yet put its first Integrated Solid Waste Management (ISWM) framework law into practice. It works to close open dumpsites and supports the '4R' concepts of 'Reduce, Reuse, Recycle, and Recover.' ISWM supports waste-to-energy programs and calls for a greater dependence on hygienic landfills. Due to population concentrations, especially in Lebanon's highly urbanized country, cities are the main producers of solid waste. This has become a persistent problem, with increasing amounts of trash being produced and a lack of proper waste management. Although Lebanon spends approximately ten times as much on waste management as Jordan and Tunisia, the country still falls short, which undermines people's rights to a healthy environment.

138 UNDP, 2021.

139 Ibid.

LEBANON
Beirut - Mixed municipal solid waste containers awaiting collection.
© Shutterstock

Key Infrastructure Gaps in the Arab Region

Challenges that face the region to implement needed infrastructure plans are discussed in this section. Repurposing existing assets is an often-neglected aspect of urban development. In the Arab region, this leads to more expensive and less sustainable infrastructure solutions. Political will is reflected on having national development plans, which in turn must direct the financing and execution of infrastructure projects. It is also important to guarantee equal access to services by all groups, including vulnerable ones. COVID-19 has shown the importance of investing in health care services as infrastructure. All of this varies in the level of difficulty, with the most challenging countries being the conflict ones, where basic infrastructure comes as a first priority.

Utilising Existing Assets

In some cases, there is a bias among public officials to build new capacity, rather than make the most of existing infrastructure. Best practices, however, demonstrate that innovative cities worldwide are increasingly taking on new approaches to advance existing infrastructure use and to ensure that their infrastructure investments are serving the greatest possible good. For example, to guide its selection of transit projects, the government of Singapore has a clear metric, 'to support its broad socio-economic goal of building a densely populated urban state, any project must contribute to the specific objective of achieving 70 per cent use of public transit'.[140] Unfortunately, an examination of the upcoming project pipeline in the Arab region reveals that there are few examples of efforts aimed at repurposing existing infrastructure. One of the few exceptions is Amman, Jordan where there are some preliminary plans to reconvert the old Hejaz Railway Track into an urban park (Box 14).

140 McKinsey, 2013.

Box 14. Amman's Highline: The Hejaz Railway

An interesting project currently being considered is a revitalisation of the Amman's Hijazi railway as a major historical asset that connects the city, and to engage communities in more active, green, and open spaces. The century-old Hejaz Railway crosses Amman from north to south, at a length of 26 km. The railway has the potential to serve as a social/meeting hub, a cycling and walking route, an entertainment venue and a green public space for all. The tracks pass through residential neighbourhoods, but surrounding areas are empty. People use it for walking, and children play around the tracks.

A Jordanian architect, driven by a desire to give the city much needed green space, has initiated the project.[141] Through the conversion of land surrounding the tracks (owned by the Waqf Ministry) into shaded walking paths and green space, a linear green corridor has been proposed. The architect notes that 200,000 people in Amman could access the park within a 15-minute walk. Moreover, instead of a long-distance train that would be dangerous in residential areas, a tram will run on the existing track. This way, his project aims to address not only the city's need for parks but also to tackle the lack of public transport.[142]

Additionally, one of the main objectives of the project is to strive for a collaboration between different ministries, private companies, and civil society. Thus, the plan is to conduct workshops with local communities while presenting the idea, hear residents' opinions and learn about their needs. Designing with the community, according to the architect, is important to ensure the project is successful, but it is also a way to involve residents in the conceptualisation and implementation. This would include an invitation to those who live close to the railway to participate by planting trees themselves. Such approaches, while common in other countries, sounds utopian in the context of an Arab city. Yet in many ways, they are much more effective in ensuring a city that is for all and not just a select few.

National Development Plans: Broad Visions vs Reality

Arab states have, by and large, been quite active in developing initiatives and plans to respond to the NUA and implementation of SDGs. Yet this does of course raise the issue of whether there is a correspondent implementation on the ground, or assurances that other policies do not undermine such commitments.

In Algiers, for example, much of the developments taking place are done under the framework of the ***2035 Urban Development Master Plan*** which is centred on a sustainable development paradigm (Box 15).[143] The effects of which can already be seen in the considerable efforts towards providing eco-friendly public transport solutions such as trams and metros, and park-and-ride facilities.

141 Almonitor, 2019; Vidal, 2020.
142 Hanna Salameh Design, 2019.
143 Chabbi-Chemrouk, 2009.

Box 15. Sustainable Algiers: A Blueprint for the Future?

In 2006, authorities in Algiers launched an international competition to review the city's master plan. The competition was won by the consultancy Arte Charpentier, a Parisian architecture and planning firm, suggesting the proposed creation of an eco-metropolis.[144] Subsequently, the Urban Development Master Plan for Algiers 2035 was entrusted to the Portuguese Parque Expo who identified a series of objectives pertaining to positioning Algiers as a sustainable city – in terms of economic development, good governance, and social development.

The aim of the green plan is to restore the city's ecosystems. This would happen through the creation of "green lungs," developing urban and agricultural parks, and rehabilitating existing downtown parks and gardens. It would also create avenues of trees along the main streets to form a green network. Some of these measures are already in place, such as landscaping and beautifying highways and gardens, and converting an old landfill into a city garden.[145] The green plan aims to improve water quality and reduce the risk of flooding, while the blue plan seeks to preserve and enhance the quality of water. The Green Plan also considers waste management, with sanitary landfills destined to replace open-air dumps. It lists a series of measures to improve drinking water distribution, and strategies to manage rainwater and reduce flood risk.[146] The White Plan's aim is to limit the failures and spatial inconsistencies caused by urban sprawl, which has exacerbated social and economic disparities and devalued the (now dilapidated) historical city centre. Focusing on urban restructuring and regeneration, the White Plan proposes housing diversification to limit precarity, and identifies the facilities required to enhance the metropolitan function of the city.

It remains to be seen whether the plan will be implemented in full. Indeed, initial reactions have been critical suggesting that it is nothing more than a continuation of past policies cloaked in an environmental- friendly language.[147] However, the general plan has the potential to be transformative and could in fact be a blueprint for other cities in the region.

Tunis operates under a Five-Year Strategic Development Plan for Transport, executed under the purview of the Ministry of Transport. One of the more prominent projects included the Trans-Maghreb rail link, aimed at connecting all the regions of Tunisia with the Algerian and Libyan borders. Another example is the "Sustainable Development Strategy" in Egypt, which falls under the broad framework of Egypt vision 2030.

It has been developed by the Ministry of Planning and Administrative Reform, which has established several pillars that directly respond to the SDGs. Jordan, on the other hand, is engaged in a number of sustainable city initiatives ranging from city-level transportation projects in Amman, to renewable energy mega projects in Irbid and Sahab.

144 Chabbi-Chemrouk, 2009; Zitoun, 2010.
145 Kheiredine, 2018.
146 Kheiredine, 2018.
147 Zitoun, 2010.

This is in addition to a sustainable mainstream plan for the Dead Sea Development Zone and renewable energy projects in the Aqaba Special Economic Zone, as well as the Ministry of Transport's 'Jordan Long Term National Transport Strategy & Action Plan; 2014-2030.'[148]

The GCC countries are notable for their initiatives, programs, and plans. Benefiting from financial windfalls and a conflict free environment. These plans provide an interesting insight into the dynamics pertaining to their respective urban development strategies. In 2016, Saudi Arabia introduced its Vision 2030 framework, an overall development strategy to guide the country as it seeks to diversify its economy and undergo important public sector reforms.[149] Among the 27 strategic goals, there is a specific goal aimed at addressing the urban landscape through upgrading the 'quality of life' in cities. To elevate this, a dedicated 'Quality of Life Program' was established in 2018 as one of the 13 programs established to realize Vision 2030.[150] The goal of this program is to list at least three Saudi cities within the top 100 cities for quality of life in the world. This inevitably underscores the vital role of urban development in the social and economic transformation of Saudi Arabia.[151]

While this is only a small sample of the various plans emanating from the region, questions about their effectiveness remain. In spite of the plethora of visions, Arabian Gulf Countries, have a mixed record when it comes to climate action, and sustainable development in general.[152] All of the GCC countries have signed and ratified the Paris Climate Agreement and have participated in the annual Conference of Parties (COP) meetings.

However, while they have made progress in addressing climate change, by the end of 2019, only the UAE and Oman had established national climate action plans: the UAE Green Agenda 2015-2030, an implementation framework for the UAE Green Growth Strategy and Oman's National Strategy in 2019 to mitigate climate change. Bahrain has a Joint National Committee on Climate Change chaired by the Supreme Council for Environment, while Qatar is preparing a climate change strategy focused on urban planning and development.[153]

Equal Access to Infrastructure Services

Urban or spatial equality requires access to affordable necessities such as housing, water, and sanitation. Lack of access to essential infrastructure and services is a daily struggle for many disadvantaged households in cities throughout the Arab region, excluding the GCC countries.

It is important to monitor the situation of infrastructure services from an access and availability perspective in light of SDGs progress. The 2019 Arab Region SDG Dashboards report shows that the Arab countries are progressing towards the achievement of water and sanitation (SDG 6) and affordable and clean energy (SDG 7). However, it should be noted that large disparities exist as the situation varies from sub-region to sub-region, country to country, city to city and person to person.

148 UITP, 2019.
149 Kingdom of Saudi Arabia, n.d. a.
150 Bakhit, n.d.
151 Ibid.
152 UNEP, 2016, p. 81.
153 Al-Sarihi, 2019.

In terms of sub-region disparities, for the majority of people in the Southern Tier countries, access to drinking water and adequate sanitation is challenging, especially for rural dwellers, whose deprivation levels are significantly greater than those living in urban areas. The WHO and UNICEF 2019 report show that while access to drinking water in the Southern Tier countries covers more than 50 per cent of the population in the six countries, access to sanitation services is problematic. Less than 50 per cent of the population of Comoros, Sudan, Somalia, and Mauritania have access to sanitation services.

Falling below the water poverty line of 1,000 m^3 per capita per year, the region suffers from persistent water scarcity.[154] On a per capita basis, Jordan has one of the lowest levels of water resources in the world. Indicators estimate that, by 2050, water resources in the region will drop even further; to 11 times below the global average.[155] In addition to water scarcity, providing clean drinking water (water quality) is also a key challenge in the context of the Arab region where water pollution is considered a major threat, and hence, rendering the already scarce water resources unusable.

Under the framework of the 'Urban Planning and Infrastructure in Migration Contexts (UPIMC) Programme', the UN-Habitat Jordan office partnered with the Swiss State Secretariat for Economic Affairs (SECO) to improve access to reliable services and socio-economic opportunities for refugees, migrants, and displaced populations in urban settlements. As a first step, ***Spatial Profiles*** for Amman and Irbid city were developed to support these cities in identifying and mapping challenges, provisions, and gaps in public infrastructure services in coordination with humanitarian interventions and various relevant governmental entities.

This enables the development of shared visions and the prioritisation of identified interventions that improve living conditions. Two pilot neighbourhoods were selected (Al Afrah Neighbourhood/ Sareeh District in Irbid city and Al Hashmi Al Janoubi neighbourhood/ Madinah District in Amman city) based on a selection criterion that included the highest refugee presence, and access to basic services and public facilities. From here, an action plan, infrastructure priority list and prioritization exercise are prepared, and bankable investments identified.[156]

The '***Enhancing the safety and resilience of Palestinian Refugees through improving access to water and sanitation facilities in public spaces'*** project in Souf and Al-Shahid camps aims to improve the access to sanitation for refugees in the Palestinian refugee camps. The aim being to reduce the risk of infection across the refugee population and enhance their safety and resilience during and after the COVID-19 pandemic. Through this urban intervention, the project intends to develop an integrated framework for urban inclusion and resilience through incremental pilots and an inclusive participatory approach. This started with a Public Space Site-Specific Assessment for each park followed by the rehabilitation of the WASH facilities in the public spaces of Souf and Al-Shahid camps as a catalyst for other stakeholders to develop similar facilities in other camps. Access to water and sanitation in conflict countries is a serious challenge. Affected people are resorting to various alternative mechanisms to overcome the challenges of water supply.

It should be noted that, dwellers of poor urban neighbourhoods, slums and informal settlements are often denied access to water and sanitation services.

154 UNDP, GEF 2018.
155 ESCWA, 2017.
156 UN-Habitat Jordan, unpublished interview, 2022.

SYRIA
Safer Access to Educational Facilities Project. © UN-Habitat/ Samer AboAlway

This was documented in a UN-Habitat profile for low-income urban neighbourhoods in Lebanon, showing that 26 per cent of dwellers in the neighbourhood of Tabbaneh in Tripoli were not connected to the domestic water network and 11 per cent of residents had no access to the wastewater network.[157]

In the energy sector, the region has made significant progress in universalising access to modern energy. However, based on a study in 2019, it shows that more than 30 million people remain without basic access to electricity, particularly in the Southern Tier countries where significant gaps remain in Mauritania, Sudan, and Yemen.[158] Universal access to secure energy is seriously challenged by protracted conflict and war in some countries.

A key aspect of electricity access in the region is the quality and reliability of supply. Service disruptions and power outages are common in many countries. For example, due to the economic crisis in Lebanon and the increase in prices, dependence on electricity supply does not exceed four hours per day, and as a result, the residents must turn to gasoline generators. The electricity supply from the government ranges from 1 to 4 hours a day across the country.

Soft Infrastructure

The city of Mangaf in Egypt has built a grand 3.2 km^2 park along the southern edge of the city. The park provides much needed recreational space, access to the beach and has other features that the residents enjoy.

157 ESCWA, 2021.
158 ESCWA, 2019.

Those living in the northern neighbourhoods of Mangaf, however, have to spend an hour driving to access this park and struggle to find parking, while those living in the south can simply walk over. Situations such as these which disadvantage certain neighbourhoods or unfairly advantage others are characteristic to cities throughout the developing world, including Arab cities. They are also difficult to catch through macro-level measurements, since a metric on ***public spaces per capita*** for the city will suggest that there is enough public space for all.

To ensure that situations like this do not happen, specialized agencies at the municipal level that are responsible for taking a comprehensive view of development and addressing the softer issues such as inclusion, access and equality are needed. One such best practice case that is often credited by the urban development community is the City of Medellin, Colombia. Through the creation and empowerment of an effective planning agency and a citizen engagement and outreach agency, the city was able to reverse its trend of informality, segregation, crime, and transform itself into a vibrant, inclusive, safe, and productive city that it is today. In 2016, it won the ***Lee Kuan Yew World City Prize*** for its sustainable urban transformation.[159]

Infrastructure in Conflict Countries

Conflict cities in war torn regions – Yemen and Syria but also Iraq, Libya, and Sudan – have a unique set of infrastructure requirements as they are facing a reconstruction effort that necessitates investments in basic systems.

Thus, unlike other cities in the region they do not, seemingly, have the luxury or resources dedicated to investments in advanced forms of infrastructure – smart transportation systems, smart cities, and green infrastructures. Nonetheless, it is important to note that they hold the potential to start from a clean slate and can invest in new and innovative systems instead of being bogged down by wasteful practices.

Water scarcity was already a problem in most of the conflict areas in the Arab region, but damage to the infrastructure has made the problem much worse (Box 16). Almost two-third of the water treatment plants, half the pumping stations, a quarter of the sewage treatment plants and a sixth of the wells are either partially damaged or destroyed.[160] Just in Aleppo, Hama and Idlib, water facility damage is estimated between $368 to $450 million.[161] The water supply line does not supply major cities and was left unused due to the conflict. Water Treatment plants are either damaged or are not functioning to their full capacity. Desalination cannot operate as intended due to lack of chemicals or maintenance. Instead, the people of Syria have found alternative ways to access water in the form of wells and trucks. Libya's already neglected water infrastructure has worsened and now is facing imminent collapse.[162] Yemen is facing a humanitarian crisis as the country's already low stock of water facilities are damaged due to the conflict. With 38 per cent of all water infrastructure being damaged.[163]

159 Duch & Ricart, 2018.
160 World Bank, 2017a.
161 World Bank, 2017b.
162 World Bank, 2020a.
163 World Bank, 2020b.

Box 16. Access to Water Services in Countries in Conflict: Self-Help Mechanisms

In the context of countries in conflict, where significant damage and destruction is inflicted on water supply and sanitation infrastructure assets, accessing water through the public water network becomes a serious challenge, especially for dwellers of Syrian cities such as Aleppo, Douma, Idlib, Tadmor and Raqqa where access is significantly limited, or public water is completely cut off.[164] To restore water access, city dwellers have resorted to alternative mechanisms such as developing new wells to maintain pipeline supplies and securing public water trucks to deliver to residents.

Access to water in Mosul, Iraq dramatically deteriorated after ISIL occupied the city. To cope with the situation, residents purchase water for domestic use from local water vendors who collect it from the Tigris River or rely on artesian wells.[165]

Being home to two million people, Gaza is faced with dramatic access to water. UNICEF reports that only one in ten households has direct access to safe water. The situation is exacerbated by restrictions on the movement of goods and people into and out of Gaza. To address this dramatic shortfall, a large seawater desalination plant has been constructed with funding made available by UNICEF and the European Union. Due to regular electricity outages, the plant is only able to function at a portion of its capacity. Currently, with funding made available by USAID and UNICEF, Massachusetts Institute of Technology (MIT) is developing a new desalination prototype based on electro-dialysis, which extracts salt particles from the water by running an electric current through it.[166]

In terms of its internet, energy, water supply, solid waste, wastewater management, and transportation systems, as well as its public financial management, Lebanon's infrastructure is of poor quality. Lebanon is characterised by large disparities in infrastructure quality, which have exacerbated persistent regional inequalities in economic development. In order to tackle this issue, the government developed a Capital Investment Plan (CIP), outlining projects in all major infrastructure sectors. The plan provides details on 269 infrastructure projects, worth roughly USD $23 billion, in order to ameliorate the country's dilapidated public infrastructure including electricity, water and transportation. The plan prioritises underdeveloped communities and those hosting a larger share of Syrian refugees.

Reports from UN-Habitat indicate that decades of civil conflict and poor governance have put a strain on Lebanon's health system and public infrastructure. Since they lack fundamental social safety nets and have less funding to fill those gaps, vulnerable communities are the ones that suffer the most. Recent disasters, such as the COVID-19 pandemic, the crumbling economy and the Beirut Port Explosion of 2020, have put further strain on the health sector.[167]

164 World Bank, 2017b.
165 UN-Habitat, 2016a.
166 UNICEF, n.d.
167 ESCWA, 2021.

In terms of social infrastructure, health care is a top priority in most countries. It is even more crucial in conflict countries. Hospitals and clinics need water, electricity, medical supply and physicians to function, but all of these factors are undermined by the conflict. In the case of Syria, in the ten conflict cities, the World Bank recorded that six out ten health facilities and 54 percent of all hospitals have seen some form of damage. The situation is worsened by the fact that half of the country's physicians have left the country due to the conflict, as reported by Physicians for Human Rights.[168] The same situation has occurred in Libya, where even foreign health care workers decided to leave the country.-

Educational facilities are considered another type of social infrastructure needed in cities. Despite significant efforts and budgets allocated to construct educational facilities in Arab cities, they are often not meeting the actual needs of their targeted beneficiaries. Countries with relatively high levels of illiteracy on the one hand, including Comoros, Iraq, Sudan and Yemen, are converging towards full literacy at a slower pace compared to other countries. On the other hand, Jordan and Morocco managed to reduce their illiteracy rates by 80 per cent and 58 per cent, respectively, within only a 10-year period. Completion rates in the region remain an issue at the primary, secondary and tertiary levels of education; especially in the Southern Tier - least developed countries and those affected by conflict.[169]

The current COVID-19 pandemic has further highlighted the flaws in the regions' education systems, particularly in terms of its infrastructure, accessibility to technology and in some instances the qualifications of its teachers. It has been difficult to transition to e-learning, which has further exacerbated the disparity in access to education in the Arab region.

As the world becomes more and more dependent on IT, education investments will become more important. This will call for curriculum revisions, teacher capacity building and higher infrastructure spending.[170]

Arab Urban Infrastructure at a Crossroad

In examining the state of infrastructure of the urban centres in the Arab world, it becomes clear that the cities find themselves at a decisive crossroad. Should cities be designed and planned for the few or the many? In some respects, this debate takes place throughout the world, but it is particularly intensified in the region given the high levels of inequality both within countries and cities and also across the region itself. The GCC is an outcome of processes unique to the region and is difficult to constitute a model for the rest of the Arab region. Middle income Arab countries in Mashreq and Maghreb, which are in a relatively stable political situation, are suffering from a lack of adequate resources to invest in the urban transformation. While the LDCs/Southern Tiers countries and those experiencing prolonged conflict, due to their fragility and lack of resources, still have a long way to go.

There has to be an appreciation of local differences, contextual constraints, and availability of resources in order to develop infrastructure that is safe, secure, sustainable, and resilient. A key question here, to be further unpacked in Chapter 4, is whether planned and upcoming projects that incorporate these goals show a way forward.

168 World Bank, 2017a.
169 ILO & ESCWA, 2021.
170 Ibid.

Conclusions and Takeaways

- Prioritisation of Fixed/Critical Infrastructures: The state of Arab urban infrastructure varies massively between countries and regions and is difficult to generalise. However, often the region's infrastructure project stock is driven by a need to provide, upgrade and maintain essential elements including utilities and transportation networks as opposed to making its cities more resilient and sustainable. Already limited financial and physical resources tend to be directed toward such projects. This comes at the expense of providing social infrastructures essential to enhancing people's quality of life and even survival. Some promising initiatives can be seen throughout the region in areas such as cultural heritage and green space, but often with the support of international financial aid.
- Social Infrastructure: Social infrastructure is crucial for the survival of cities; it is as important as the provision of basic utilities. As such it is imperative that infrastructure planning be rooted in broader socio-economic and inclusivity objectives set through a participatory political process, and via a set of measurable and quantifiable indicators.
- Monetisation of Urban Space: Across the region there is a growing trend toward the commercialisation of urban infrastructure projects particularly in the housing sector, but also in retail and cultural heritage. This impacts affordability and, in turn, inclusion. There needs to be a balance between the need for profit and the provision of settings that are accessible to all.
- Exclusionary Infrastructures: In many instances urban infrastructure becomes a way to exacerbate, and assert, existing societal divisions. Urban renewal initiatives and associated transportation networks, become important tools to affect the lives of vulnerable groups. Cities are reconfigured with preferential treatment toward the wealthy and outside investors. This becomes particularly visible in the case of conflict cities, which use the tabula rasa environment as an opportunity to continue past practices. Going forward, urban infrastructures must have a social component and contribute to integration in the urban environment. Efforts also need to go into analysing the socioeconomics circumstances to better understand the vulnerable groups in society, including gender analysis to better understand the negative impact on women and girls from different backgrounds, ages and disabilities.
- Challenges Heightened by Conflict: Already existing infrastructural challenges in the region are further exacerbated in countries in conflict zones. Cities in conflict struggle to fund even critical infrastructures, let alone the social infrastructure which is necessary to support the urban population in times of trouble and vulnerability.

04

A Paradigm Shift in Infrastructure Development

Introduction: For Safe, Inclusive, Resilient and Sustainable Arab Cities in a Changing World

At the moment, cities are being subjected to a paradigmatic shift in their urban development strategies. This is spurred on by challenges playing out at the global scale. Urban infrastructure worldwide is being reconfigured to be more resilient to the effects of climate change. Largely absent from this emerging discourse so far has been Arab cities. While there is no lack of rhetoric, plans and visions in the region, efforts vary greatly from one country to another, and trends can also be traced through the different sub regions and groupings of countries that have similar socio-political and economic conditions.

Studies have shown that the region is particularly vulnerable to water stress, desertification, sea level rise affecting low coastal lands and high temperature and humidity with future levels potentially beyond adaptive capacities – ie. the region may one day become uninhabitable, as was highlighted in the 2018 report from the Intergovernmental Panel on Climate Change.[171]

IRAQ
Heet. © UN-Habitat

171 Pal & Eltahir, 2016; Roy, Tschakert, & Waisman, 2018; Salimi & Al-Ghamdi, 2020.

Cities of the GCC countries, in particular, have taken it upon themselves to be at the forefront of environmental efforts and frame their urban development in a language that is derived from these new environmental discourses. Yet numerous studies have pointed out that in some instances, such endeavours sidestep the severe environmental damage that is being done. [172]

Given the abundance of fossil fuels, such visions, coupled with an unwavering belief in technology, continue to be used as a panacea for dealing with environmental issues. A closer examination reveals that there are glimmers of hope manifested through innovative, albeit sporadic, efforts in adopting green urbanism, digitalisation of urban space, incorporation of sustainable modes of transport, and a dedication to the provision of inclusive public spaces. At the same time citizens are beginning to claim their right to the city.

Nowhere is this more evident than in actions taken by urban activists in Beirut, Khartoum, and Algiers, bravely laying claim to their city's public spaces, turning them into vibrant social settings and gathering sites.[173] While still small in scale and not done at a level that would lead to systemic and structural change, they are nevertheless a proactive step towards building an inclusive city. Ultimately, the aim is for Arab cities to be safe, inclusive, and resilient. This chapter should therefore be seen as an attempt to sound an alarm and course-correct from the previously unsustainable approaches to urban development.

The objective is to move away from the destructive forces of urban sprawl, motorized transport and the monetisation of urban space. Otherwise, the alternative will be a "utopia for the few and a dystopia for the many". [174]

Emerging Infrastructures: Looking to the Future

There are several emerging forms of infrastructure that have proven to be needed by cities to fulfil their future urban needs. This includes new mobility and transportation systems that have been implemented in several Arab cities in recent years, smart cities, green systems, health care infrastructure (particularly in the face of the COVID-19 pandemic) and the emergence of a sharing economy.

New Mobility and Transportation Systems

Many cities are embracing new forms of mobility, in large part motivated by advancements in technology and a realisation of the beneficial impacts of environmentally friendly modes of transportation.[175] UNDP notes that mobility is becoming increasingly electrified, autonomous, and shared.[176] Current transportation trends indicate that autonomous transit and micro transit solutions (shared electric scooters, bicycles, and other short-range modes) will proliferate over the coming decade.[177] This means a much smaller role for private single occupancy vehicles, making travel radically safer, more equitable, decarbonised, more efficient, and cheaper.

172 Al-Saidi & Elagib, 2018; Günel, 2016; Krane, 2019; LSECities, 2017; Rizzo, 2017; Waha et al., 2017.
173 Sinno, 2020.
174 Cugurullo, 2015.
175 Cervero et al., 2017.
176 UNDP, 2022.
177 Palmer, 2019.

Traffic congestion, considerably high road-traffic death rates and excessive usage of private vehicles are common features of Arab region road networks and public transport infrastructure. The dominance of motorisation as a mode of transport in Saudi Arabia is demonstrated by the 12 million cars on its roads.[178] Arab countries are heavily investing in roads and public transport infrastructure, raising the transportation network's capacity to absorb the greater demand and attenuate congestion problems. This approach may not seem sustainable in the long term, especially in the context of a global trend towards the sharing economy and the rise of digitally enabled transport modes. Some cities are investing in mass transit to reduce air pollution, traffic congestion and create new opportunities for economic development such as the Cairo Underground, Riyadh Metro, among others.

The Saudi government has shown a strong financial commitment and the willingness to embrace new technologies and transportation solutions is notable. There are also numerous dedicated bodies and regulatory agencies tasked with implementing these new visions. Saudi Arabia's capital Riyadh, for example, operates under the 'King Abdul-Aziz Project for Riyadh Public Transport - The Comprehensive Public Transport Plan', which was developed by the High Commission for the Development of Ar-Riyadh (now renamed as the Royal Commission of Riyadh City). A number of projects are being proposed, planned and some are already well on their way to completion. Such projects hold great promise, as they have the potential to transform the city through a developmental model that is sustainable, safe, and resilient.

Between 2012 and 2021, Tunis implemented a Five-Year Strategic Development Plan for Transport. A series of objectives were identified, mostly focusing on improving access to public transportation networks, as well as decongesting the city centre. Major transportation infrastructure projects under development included an $840 million new airport planned to be completed by 2035 and the Tunis-Carthage International Airport Expansion, estimated at USD $67 million to be completed by 2025. A much more ambitious project financially is Rapid Rail Tunis at a cost of USD $2.8 billion. Financing is through the French Development Agency, which are contributing USD $53 million, while the European Investment Bank (EIB) is contributing USD $93 million. The project started in 2010 and it covers in total 86 km of Intercity Rail system; additionally, five express railway lines are expected to move approximately 600,000 people per day between the city and its suburbs.[179]

Egypt has a ***'Sustainable Development Strategy'*** operating under the broad framework of its '***Egypt Vision 2030'***.[180] It is developed by the Ministry of Planning and Economic Development and seeks to promote balanced spatial development management for land and resources in order to accommodate the population and improve the quality of life in the country. Among its main objectives is increasing the capacity and improving the quality of public transport in cities. As part of this strategy, the National Authority for Tunnels (NAT) is implementing the ***'Greater Cairo Urban Transport Master Plan***'. Objectives include the establishment of an integrated urban transport system, including metro, suburban railway and expressways.

178 UN-Habitat, 2018b.

179 OBG, 2017.

180 Ministry of Planning and Economic Development, n.d.

The Egyptian government requires $1.9 billion in investment for 4,828 kilometres (3,000 miles) of new roads, while existing roads currently cost approximately $325 million a year just to maintain.[181] While these are important, there is the possibility of searching for alternative modes of transportation that are safe and sustainable – such as improving and upgrading the existing water ferry system, implementation of shared transportation and the provision of electric vehicle infrastructure.[182] With respect to the latter, there are plans for a Bus Rapid Transit System at a cost of USD $1.25 billion. A UN-Habitat study demonstrates that there is sufficient demand for BRTs on many roadways in Greater Cairo.[183] Since then, plans for a 42 km BRT connecting Giza to the 6th of October city have emerged.

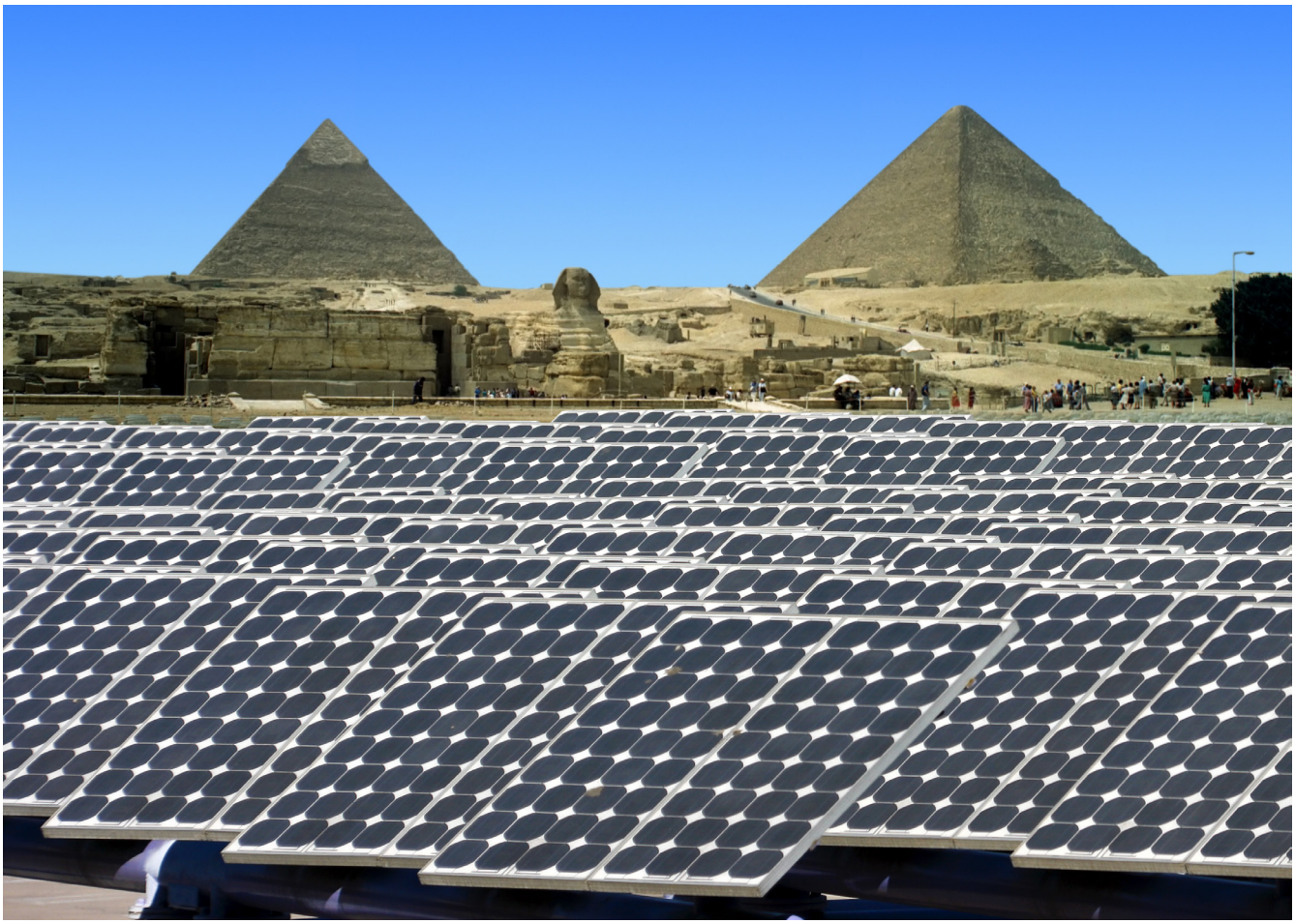
In Jordan, wide-ranging transportation solutions are being directed under the '*Jordan Long Term National Transport Strategy & Action Plan 2014-2030*' developed by the Ministry of Transport.[184] It includes the introduction of the Zero Emission Electric Vehicle (ZEV) and deployment of 3,000 charging stations powered by renewable energy. There is also a *'Transport & Mobility Master Plan for Amman'* developed by the Greater Amman Municipality (GAM) (2010-2025).[185] It seeks to lessen the dependence on cars and ensure that transport plays a positive role in achieving continuous and sustainable economic growth and increasing the modal share for public transport trips to 40 per cent by 2025.

At another level, Amman has signed up for the ***Green City Action Plan*** in collaboration with the European Bank for Reconstruction and Development[186] and the '***Making Cities Resilient: My City is Getting Ready***' campaign by UNDRR. The program aims to address the city's environmental challenges in an effort to reduce pollution, improve energy and resource efficiency, promote climate change adaptation and ultimately make Amman a greener and more liveable city.

Amman has also been active in developing a series of measures to make the city more resilient.[187] In order to achieve these ambitious goals, a series of projects are underway or in the planning/review stage. A proposed BRT System is operating under the auspices of the Greater Amman Municipality and the Ministries of Public Works and Housing and Transport.[188] Further to this project, there are some efforts to implement a Light Rail Network; although it is currently at the preliminary stage of undertaking feasibility studies.

As part of this, the USD $ 22.5 billion six-line metro system will serve 85 stations, while the city's bus network will have 965 buses and approximately 6,700 stops. An important aspect of the project is Transit Oriented Development (TOD), which involves the provision of a public realm and streetscape in which the metro will integrate with.

181 Khalil, 2017.
182 Khalil, 2017.
183 UN-Habitat, n.d.
184 Ministry of Transport, 2022.
185 Greater Amman Municipality, 2010.
186 EBRD Green Cities, n.d.
187 Greater Amman Municipality, 2017.
188 UNEP, 2016, p. 36.



EGYPT
Solar panels in Egypt.
© Shutterstock

This will entail walkways, 135 cycle paths and attractive street lighting. In addition, climate friendly interventions, such as trees, are being planted and canopies constructed to provide shade for pedestrians.[189] Another component of this system is the planned King Abdullah Financial District Monorail, estimated to cost $241 million. A completion date has not been set yet, but its implementation should ensure that the district can be fully integrated with the city.[190]

Similar developments took place in Doha, Qatar, which developed its own extensive metro system as part of the extensive infrastructure investment to prepare it to host the FIFA World Cup in 2022.

Bahrain recently launched the construction of a 100km light rail network, part of Bahrain's Urban Transit Network Project (BUTN), which includes four metro lines. These are fully automated and driverless and will pass through Manama's main residential, business and leisure spots according to official reports.[191]

In Lebanon, there are two recent mobility solutions – ***Loop Sal*** and ***Wave e-bikes. Loop Sal***, established in 2016, is the first to introduce a shared fleet of electric scooters in the Arab region, starting in Lebanon.[192] The $1.3 million investment from Berytech Fund II secured the incorporation and funding of Loop Sal.[193]

189 UITP, 2019.
190 Railway Gazette, 2014.
191 Railway Technology, 2021.
192 Abouchacra, n.d.
193 Ibid.

The Company, located in Lebanon, is a Zone Operator of LOOPShare Ltd., the global provider of Loop electric scooters shared fleet services and technology. Loop is a service that allows people to share scooters to commute within the city during the day, without the need for a car. This allows users to access their destinations in an easy, convenient, timely, and affordable manner. Its sharing service is offered through keyless electric scooters equipped with sensors and a digital dashboard with GPS tracking.[194]

Wave e-bikes, with their customised e-bike subscription, combines cycling culture with everyday needs, offering a healthy transportation solution that services the needs of local residents and commuters. Wave is currently a trendy and rapidly expanding community. They provide free cycling instruction so that people may learn to pedal safely, and their products help meet the need for climate-friendly transport while reducing traffic challenges in urban areas.[195]

Environmental Sustainability and Climate Action Highlight

The Arab region is predicted to be one of the world's most affected areas when it comes to climate change. Consequently, it will likely have to endure extreme heat, severe flooding and droughts in the future.[196] With 12 of the most water scarce countries located in the region, these climate effects will have a profound impact on the wellbeing of the local population, further exacerbating the already concerning situation.[197]

The expanding urban population is placing increased strain on the environment through the unsustainable consumption of limited water supplies and abundant energy resources. Most Arab countries are already challenged by high rates of air, soil, and water pollution, inflicting a high financial, economic and public health burden on the population. Some of the National Urban Policies have already begun to integrate environmental sustainability measure within the frame of fostering their cities as centres of a high tech and knowledge economy and to move away from an economic dependence on fossil fuels.[198]

Most Arab countries have already submitted their first Nationally Determined Contributions (NDCs). Many of these contain national plans for adaptation and quantitative emission reduction targets. Some countries have already begun scaling up renewable energy approaches and have put in place institutional structures to plan and implement more ambitious policies. Despite this, when it comes to environmental sustainability and climate change, the region as a whole has been underperforming. Evidence of this can be seen in the varying commitment across the region to achieving the SDGs; this is particularly noticeable in SDG 7 (affordable and clean energy) and SDG 13 (climate action). While there are some indications of progress underway, as the world's eyes turn to COP 27 in Egypt and COP 28 in the UAE, attention to climate change and sustainable energy across the Arab region is certain to rise.[199]

194 Engineering for Change, n.d.
195 Wave, n.d.
196 UNSDSN, 2022.
197 World Bank, 2015b.
198 OECD, UN-Habitat & UNOPS, 2021.
199 MBRSG and UNSDSN, 2022.

To date, all Arab countries, except Yemen and Libya, have ratified the Paris Climate Agreement and submitted Nationally Determined Contributions, which lay out national-level goals and strategies for combating climate change in terms of both mitigation and adaptation. Ahead of COP 26 in 2021, 16 Arab nations had already submitted updated or new NDCs, and three have also committed to having net-zero emissions by the middle of the century. Based on income levels, population sizes, natural resources and levels of political stability, countries in the region experience extremely diverse national conditions.[200]

In North Africa, the countries are in various stages of transitioning from hydrocarbon dependent energy production to renewables. In Algeria, for example, a country that has a fossil fuel dependent economy, it is committed to reducing its GHG emission by 7 per cent from the business-as-usual trajectory by 2030.[201] Egypt, the largest population in the Arab region, has not committed to any quantifiable reductions in emission, however, its Nationally Determined Contributions (NDCs) are indicative of their intentions. It is also taking steps towards renewable energy generation such as the 1.8 GW Benban Solar Park as well as substantial investments in public transportation including electric rail projects.[202] Libya, despite being one of two countries in the region that has not ratified the Paris Agreement, is aiming to have 22 per cent of its energy coming from renewable sources by 2030.[203] Accordingly, Morocco has an ambition to reduce its emissions by 45.5 per cent from its business-as-usual levels by 2030.

As of 2019, its renewable energy share is at 19 per cent.[204] Tunisia has pledged unconditional reduction in carbon intensity of 28 per cent compared to its 2010 levels and also a conditional reduction of 17 per cent if there is external support to its pledge.[205]

Despite having the financial resources to do so, the Gulf Cooperation Council countries, have shown varying results when it comes to establishing concrete goals. Qatar, one of the richest countries in the region, has only begun to address fossil fuel usage and emission. Oman has only recently adopted the ***National Strategy for Adaptation and Mitigation to Climate Change 2020-2040*** in 2019. Bahrain is more ambitious, with aims to have a net-zero emission target by 2060. Kuwait, on the other hand, issued a ***National Adaptation Plan 2019-2030*** and aims to reduce its GHG emission by 7.4 per cent by 2035 compared to the business-as-usual trajectory. Saudi Arabia has adopted its circular economy approach at a national level, and it also aims for net-zero emissions by 2060. The UAE has adopted its ***National Climate Change Plan 2017-2050*** and aims to achieve net-zero emissions by 2050.[206]

The Levant countries are struggling to achieve goals or any target since they are experiencing a high level of conflict and crisis. Iraq, a country heavily dependent on oil exports, has not made any pledge to reduce their carbon emissions. Jordan has announced a 31 per cent emission reduction target by 2030. Lebanon, despite having struggled through many crises, it still aims to reduce emissions by 15-20 per cent compared to its business-as-usual levels by 2030.

200 MBRSG & UNSDSN, 2022.
201 Ibid.
202 Ibid.
203 Ibid.
204 Ibid.
205 Ibid.
206 Ibid.

IRAQ
Heet. © UN-Habitat

Palestine has also announced the aim to reduce its emissions by 17.5 per cent compared to business as usual and to have achieved 15 per cent electricity production through renewable energy in 2019. Syria has pledged to produce 10 per cent of its energy from renewables by 2030.[207]

While Least Developed Countries have established targets, many are constrained by limited resources to tackle climate change. Comoros aims to adopt ***'The Emerging Comoros Plan 2030'*** to tackle environmental sustainability and climate resilience. Djibouti's National Climate Change Committee which was established in 1999 has struggled to achieve progress, largely due to its lack of resources and technical capabilities. Mauritania aims to reduce its GHG emission by 11 per cent compared to its reference scenario by 2030.

Additionally, Somalia has promised to reduce its emissions by 30 per cent compared to its business-as-usual scenario by 2030. While Sudan is still struggling with conflict, it now has a humanitarian crisis that needs to be resolved, stifling efforts towards tackling climate change. Yemen, although struggling with their ongoing crisis, has set a target to reduce its GHG emissions by 1 per cent by 2030 and an additional 13 per cent reduction under certain conditions.[208]

As can be seen above, the Arab region is making efforts to establish targets and work towards achieving their climate goals, however, the region as a whole is struggling in reducing their emissions, since the majority of the countries are fossil fuel exporters, while other countries are struggling with a state of conflict and have limited resources. Consequently, the SDGs related to climate change and energy are not being met or are struggling to be achieved.

207 Ibid.
208 MBRSG & UNSDSN

Renewable Energy: Sustainable Solutions for Arab Cities?

The shift to greener technology and low-emissions solutions in Arab cities must be driven by a desire to mitigate the impacts of climate change, protect natural resources, and improve the quality of life in cities. However, it brings with it opportunities for the development of sectors such as renewable energy. The renewable energy sector in the region is showing an increasing regional trend. While in 2008, only four countries (Egypt, Morocco, Tunisia, and Jordan) had operational renewable energy capacities with a total accumulative investment of around USD$ 1.2 billion, by 2018, renewable energy covered all 22 countries with around USD$ 15 billion in investment.[209] This increase was consolidated with substantive improvements in technology, policy, market and institutional setups (Box 17).

While the hydro potential is already utilized in the region, the Arab countries are heading towards a transformation from wind to solar Photovoltaic (PV) technologies. According to the Arab Future Energy Index, "wind generation is currently dominated by utility scale installations in Egypt, Morocco, Tunisia and Mauritania, while Concentrated Solar Power (CSP) have gained new frontiers in Saudi Arabia, adding to developed projects in Algeria, Morocco, Egypt and the UAE."[210]

Box 17. Renewable Energy Trends in the Arab Region[211]

The market structures have substantially improved, providing viable private investments opportunities, and embracing measures to ease access to the power generation market for both on-grid and off-grid projects. The subsidy reform movement across Arab countries continues to provide a better rationale for the necessity of increased contribution of renewables to the food energy mix.

All Arab countries are currently allowing for some sort of private participation in power generation activities. At least nine countries have designated areas for the development of Renewable Energy (RE) projects, and all countries have dedicated institutions or Ministry-level departments to promote the development of RE. The political commitment to foster RE has translated into coherent policy frameworks, RE targets with detailed action plans and supporting policies.

As shown in the drivers of urbanisation, natural growth of urban areas – including the increase in the population – will require Arab states to fulfil an increasing energy demand. In that context, renewable energy can provide a productive solution and sustainable way forward. Among the various benefits of deploying renewable energy, the 2019 International Renewable Energy Agency (IRENA) report projected that the GCC region could create an average of 135,000 jobs yearly, providing progress toward its renewable energy targets. By 2030, the creation of jobs could reach 220,500, which would be reflected in employment opportunities in Arab countries.[212]

209 RCREEE & UNDP, 2019.
210 RCREEE & UNDP, 2019.
211 RCREEE & UNDP, 2019.
212 IRENA, 2019.

SYRIA
Homs.© UN-Habitat/
Samer AboAlway

According to the AFEX report, the Arab countries progress in renewable energy deployment can be summarized as follows:

- Seven Arab countries (Egypt, Morocco, Iraq, Sudan, Syria, Jordan, and Algeria) possess 90 per cent of the current RE capacities in the region. Egypt and Morocco together have 46 per cent of the total installed capacities. Although Sudan and Iraq have not yet started an effective market transition towards solar and wind technologies, their advanced ranks are due to the existing hydropower facilities in both countries.
- Egypt and Morocco assume again the highest capacities (excluding hydro), with each holding around 27 per cent of the total regional capacity.
- Jordan and UAE rank first and second if the per capita share of the installed capacity is considered (excluding hydro). Morocco, Mauritania, and Tunisia are also among the top 5 performers.
- Egypt, Jordan, UAE, Morocco, and Saudi Arabia are the top five Arab countries in terms of year-to-year installed capacity increases. Yemen, in a fragile and crisis context, has shown that PV is of true value to its citizens as a survival solution during the difficult war situation.
- Seven Arab countries (Jordan, Egypt, UAE, Algeria, Morocco, Yemen and Saudi Arabia) hold 90 per cent of the current PV capacities in the region.

Green Systems and Green Infrastructures: Nature Based Solutions

A growing trend throughout the world is the repurposing and reconfiguration of hard and grey infrastructure systems (ie. roads, highways, disused train tracks, etc.) into urban green parks. Additionally, there is an increased focus on making cities more resilient to the effects of climate change – such as flooding – through the design of porous sidewalks, green roofs, community gardens, parks, and an emphasis on public space.[213]

213 UN-Habitat, 2015a, 2015b.

Such efforts fall under the broad rubric of 'green infrastructure.' There are many benefits to such an approach, particularly with respect to financing. [214] Green infrastructure is relatively quick to implement, is comparatively inexpensive, has broad public appeal, and is politically benign.[215] Moreover, green systems would aid in ameliorating some of the problems facing cities worldwide, where hard surfaces can now comprise as much as 67 per cent of land area while 'green' areas can fall as low as 16 per cent in some cities. Green infrastructure can regulate ambient temperatures and reduce storm-water runoff, as well as afford recreational opportunities.

At its most basic, green infrastructure typically refers to an interconnected network of multifunctional green-spaces that are strategically planned and managed to provide a range of ecological, social and economic benefits.[216] It is important here to distinguish between green-space and green infrastructure. While green space is often viewed as something that is nice to have, green infrastructure implies something that we must have. Protecting and restoring our natural life-support system is "a necessity, not an amenity." [217] It is also important to note that it is simply not enough to provide any kind or size of green space but that there are a complex set of factors, categorized under green morphology, which involve connectedness, shape of greenspace and aggregation, all of which can have a significant effect on health and well-being.[218]

The trend of urbanisation in the developed world is towards green infrastructure and the conversion of hard infrastructure into green systems, which also effectively act as social infrastructure. Acknowledging the challenges of local climate, the Arab world – individual efforts notwithstanding – is far behind when it comes to initiatives pertaining to green urbanism. An examination of planned projects indicates that there is a realisation that the way forward is to assign green systems a much higher importance, like utilities and other essential services. In some cases, however, the boundaries between a truly green initiative and a profit-making real estate scheme are blurred. In such instances, green systems are often used as a means of 'greenwashing.'

The GCC has been quite prolific in terms of green park provisions; however, this does not reach the level of developing an entire green system, or an urban ecology that is based on a slew of projects as discussed above. For the most part, they remain at the level of enhancing urban aesthetics and providing an occasional outlet for residents. While such efforts remain commendable, there is still work to be done to achieve a comprehensive greenspace system that would aid in ameliorating climate and health problems as noted above.[219] In terms of project pipelines, there are few significant projects on the horizon.

214 Ibid.
215 Bowler, Buyung-Ali, Knight, & Pullin, 2010.
216 Bendict & McMahon, 2006; Kambites & Owen, 2006; Tzoulas et al., 2007.
217 Bendict & McMahon, 2006, p. 2.
218 Wang & Tassinary, 2019.
219 Wang & Tassinary, 2019.

In Riyadh, Saudi Arabia, a series of megaprojects were announced, representing a key component of Vision 2030; these projects include a Sports Boulevard, a 135 km long green urban corridor, replacing a utility highway and converting it into an urban boulevard and green park. King Salman Park, located in the heart of the city, will be the largest urban park in the world upon completion. In addition, Green Riyadh is a city-wide initiative that seeks to plant 7.5 million trees across the capital in gardens and parks, mosques, schools, academic, healthcare, and public facilities in addition to King Khaled International Airport and most roads, streets, car parking spaces, and valleys. The cost for all of this is estimated at $23 billion.[220]

Box 18. Green Sukuk - Vision towards a sustainable future

The *green sukuk* is a new green Islamic bond where the proceeds are used to fund specific environmentally sustainable infrastructure projects. Its role is to accelerate the transition to low-carbon and climate-resilient urban development. It is considered an innovative financial tool that offers promise towards the implementation of the SDGs, potentially bringing about much needed climate-friendly development. More investment, however, will be required to realize these results. The organizers and issuers of the world's first green sukuk in Malaysia state how easy, quick, and affordable it is for investors to issue it.

Sukuk instruments are becoming more and more recognized worldwide, not just in Muslim countries. Fitch Rating estimates that the total value of sukuks issued globally in 2021 alone was USD$ 252 billion, and that the market's total outstanding value of sukuks now exceeds USD$ 711 billion.[221] In Sub-Saharan Africa, green sukuks could be a crucial tool for funding sustainable energy and resilient infrastructure projects. Market growth promotes green initiatives and boost livelihoods, assisting Islamic finance in achieving its set objectives.[222]

In Q1 2022, financial institutions mostly based in the GCC dominated the issuance of Environmental, Social and Governance (ESG) sukuks, which includes green and sustainability-linked sukuks. However, the majority of issuances were from the energy and utilities sectors.[223]

220 Bridge, 2019.
221 UNDP, 2022b.
222 Aassouli et. Al. (2018)
223 Taitoon, 2022.

In the United Arab Emirates, Abu Dhabi announced the Ghadan 21 initiative. Ghadan 21 is a three-year Abu Dhabi Development Accelerator Programme anchored around four main pillars: Social, Economic, Liveability and Knowledge. At a cost of $2.5 billion, the Emirate aims at transforming its public places and parks into community spaces for all residents. This will include water features, community ponds and playgrounds for children. The initiative comprises more than 300 small- and large-scale projects across Abu Dhabi; for example, four 'signature parks' and the regeneration of 16 existing ones. Work is set to begin on two streets in the capital.[224] Released images show a bucolic environment where residents – expatriates and locals – enjoy the green offerings. Figure 17 illustrates the initiatives that have been launched in the first year as part of Ghadan 21.

In Jordan, Food security is growing more fragile, impacted by the influx of refugees, rapid urbanization, dependency on importing, and limited natural resources, which have strained the already-vulnerable food system of Jordan. In response, and in partnership with the United Nations Environment Programme, UN-Habitat has held a 10-day vocational training for vulnerable local communities in Amman on urban gardening and composting, in collaboration with the Greater Amman Municipality. This training was the first step to establishing a community urban garden at Queen Rania Al-Abdullah Park in the Al Qwiesmeh District of Amman. Working with 33 community members and stakeholders, this training went beyond the park itself, and benefited the vulnerable communities to enhance their self-reliance, capacities, and awareness on affordable nature-based solutions. This training is the first step to recognizing the important relationship between food security, agriculture, climate adaptation, and urbanization. It sets the groundwork for implementing sustainable solutions for Al Qwiesmeh community that will help address the growing socioeconomic and environmental challenges that they are facing.

224 Dajani, 2019.

225 Lall et. Al., 2019.

Smart Cities and the Role of Technology: Digitalisation of Infrastructure

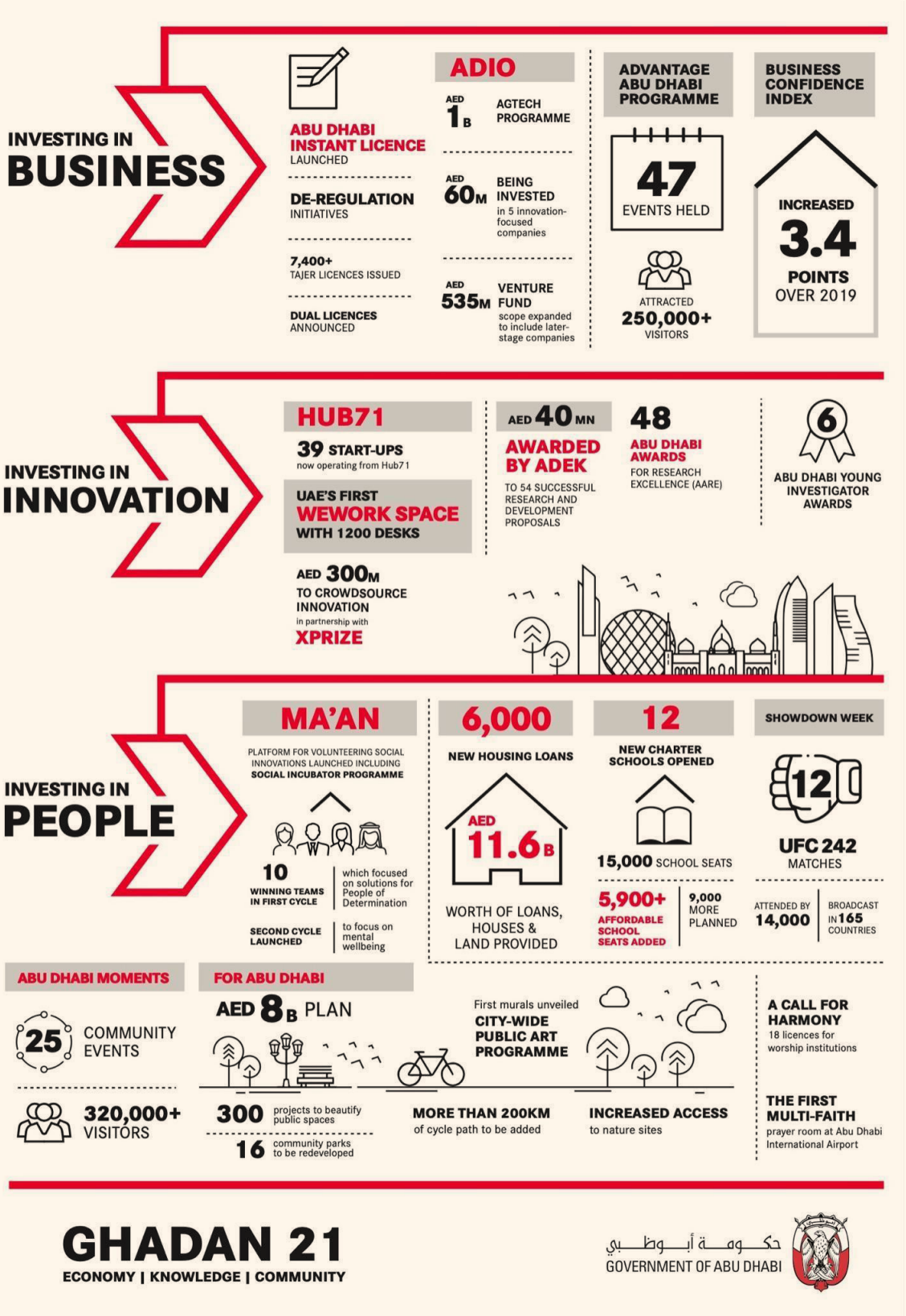
The concept of 'smart cities' is being increasingly used by city officials in various parts of the world. In the Arab region, the concept has been especially centralised in the planning of new cities and megaprojects.

While there is no agreed upon definition, broadly speaking a city is considered 'smart' when investments in human and social capital and traditional and modern infrastructure (ICT) fuel sustainable economic growth, a high quality of life and with a focus on natural resource management. Examples of the application of ICT in city planning and management and the extent to which this has made investment in urban infrastructure more efficient is widespread. While there are some good examples of smart city interventions in the Arab region, they vary significantly by country, stability and level of economic development.

In Morocco the ***Casablanca Smart City Initiative*** started in 2018 and aims to be fully operational by 2022. It is estimated to cost USD $9 million. The initiative is managed by the Casablanca City Council and Casa Prestation and is being guided by the '***Relying on a Digital Transformation Master Plan***'. While relatively modest in its ambition, its major components include the digitisation of services, video assisted driving of trams, monitoring electricity consumption in new buildings, and carpool sharing. There is also a National Digital Strategy – Maroc Digital 2020 – which seeks to address the challenge of reducing the 'digital gap' by 50 per cent.[225]

In Algiers, aside from a focus on services,

Figure 17. Infographic of Ghadan 21 initiatives



Source: Government of Abu Dhabi, 2019.

there are also plans to construct specific smart cities. This includes the Sidi Abdallah Technopark, also known as Cyber Parc, situated 30 km south-west of Algiers. This site comprises three technology parks, which will be able to accommodate firms specialized in advanced technologies and an industrial park.[226] Tunisia has ambitions to be the next 'start-up' country in the Arab region.[227] To that effect the Smart Tunisia Initiative, which started in 2015, has a budget of US$560 million. The Smart Africa start-up investment fund has contributed USD $111 million to this. The government also plans to develop key infrastructure to attract and enable tech start-ups. This includes plans for the establishment of 'STATION T'; a technology park modelled on France's STATION F – the largest start-up campus in the world. There is also a ***Digital Tunisia 2020 Strategy*** with an investment of USD $283 million; the African Development Bank is contributing USD $83 million while the World Bank is contributing USD $175 million. Planned projects include improving telecoms infrastructure, promoting a digital culture within the private sector, digitising government services, promoting entrepreneurship and innovation, and establishing an effective regulatory framework.

Unlike other cities in the region, Dubai has made the 'Smart City' an essential component of its urban development strategy. This includes the ***Smart Dubai Initiative***, conducted under the auspices of Dubai's Roads and Transport Authority (RTA). It has budgeted $8 billion and operates from the "Smart Dubai Office" as well as the "Office of Smart City Impact Management." Currently there are 545 smart initiatives and services across eight government entities and two smart districts.

Digital infrastructure has become even more important in recent times. The COVID-19 pandemic and the subsequent lockdown measures, for example, pushed individuals overnight to have to engage with online tools and programs more actively – online education, working from home, as well as other virtual activities. This increased the need for reliable digital infrastructure, as well as increased awareness and knowledge of the different tools at their disposal. One concern that is emerging, is that the pivot to smart city technologies and ICT interventions as a whole, could result in a growing digital divide between those that are adept with technology and those who are not. This is particularly prevalent among the aging demographic that is at risk of losing access to services because they are not as proficient with modern day technologies. For smart strategies to be effective, they need to be inclusive and consider opportunities to narrow the emerging digital divide.

The Sharing Economy and Digitisation in the Arab Region

The term 'sharing economy' has witnessed an explosion in usage over the last 10 years. Experiences show it has the ability to yield three primary benefits: economic growth, social cohesion and improved access to public services. As such, policymakers are encouraged to consider leveraging the sharing economy in pursuit of high quality and inclusive infrastructure.

The sharing economy has two primary pillars. The first is the principle of increasing usage of an underutilised asset and the recirculation of goods. The second is the presence of an internet-based platform for enabling the more effective use of otherwise underutilised assets.

226 International New Town Institute, n.d.
227 OBG, 2019.

The idea of exploiting underutilised assets via sharing predates the internet, but the internet has massively expanded the range of possibilities. In the GCC, 60 to 70 per cent cite the price reduction associated with using sharing economy services as the top benefit.

Box 19. What Are the Benefits of the Sharing Economy?

Benefit 1: By making better use of underutilised assets, we can produce--and therefore consume--a larger volume of goods and services. This contributes to increasing living standards.

Example: Car-sharing companies such as ZipCar allow society to decrease the number of cars required, freeing-up resources to produce other goods and services.

Benefit 2: By decreasing wasteful production and consumption, we decrease pollution, harmful emissions, and carbon footprints.

Example: Using Fiverr to hire teleworkers decreases the environmental damage caused by workers commuting to and from the office.

Benefit 3: By allowing people to productively interact with a wider circle of strangers, the sharing economy promotes trust and social connectedness.

Example: Being an Airbnb landlord offers people the chance to make friends with tenants from all corners of the globe.

Ridesharing

Uber is highly active in the Arab world. 16 per cent of its USD $3 billion revenue during the first quarter of 2019 was from the Europe, Middle East, and Africa division. In 2017, over four million riders used the ride-sharing company, with over 150,000 drivers supplying those services. In some locations, drivers can earn wages considerably above the average for a mid-level government employee. Uber has been hugely successful in the Arab world, especially in the Middle East and North Africa. It operates in one third of the countries in the region, with around 100,000 active drivers in 2018 in KSA alone.

SWVL is currently one of the leading companies in the ride-sharing mobility field. It began as a small start-up in Egypt and quickly gained a reputation, due in part to its collective model and specific routes, allowing it to provide more competitive and affordable rates. SWVL re-purposes under-utilized minivans and private buses throughout the day for different services.[228] Through different acquisitions, SWVL was able to expand into the UAE, Saudi Arabia, Jordan, and elsewhere in the region. By 2030, SWVL has pledged to rely 100 per cent on renewable energy sources.[229] The company is valued at USD $1.5 billion with USD $121.5 recently raised with investors including the European Bank for Reconstruction and Development.[230] Moreover, a budget of USD $1.7 million has been provided by the Swiss based Drosos Foundation and UNFPA to develop designated bike lanes and bike sharing in Greater Cairo through the project 'Cairo Bike' implemented with technical assistance by UN-Habitat and the Institute of Transport Development Policy (ITDP).

228 Bellan, 2022.
229 Butcher, 2022.
230 Bellan, 2022.

Box 20. Uber's Turbulent Start of Operations in Egypt

After successfully launching operations in Egypt, and creating jobs for many unemployed Egyptians, Uber eventually drew the ire of local taxi drivers. In March 2018, following the filing of a lawsuit by Egyptian taxi drivers, an Egyptian court ordered a suspension of Uber and Careem activities, on the grounds that they were illegally using private cars as taxis. However, both ride-sharing operators were granted a stay in April 2018 while they appealed the original ruling. The matter reached parliament, with stakeholders from both the ride-sharing community and the traditional taxi community lobbying hard to protect their interests.

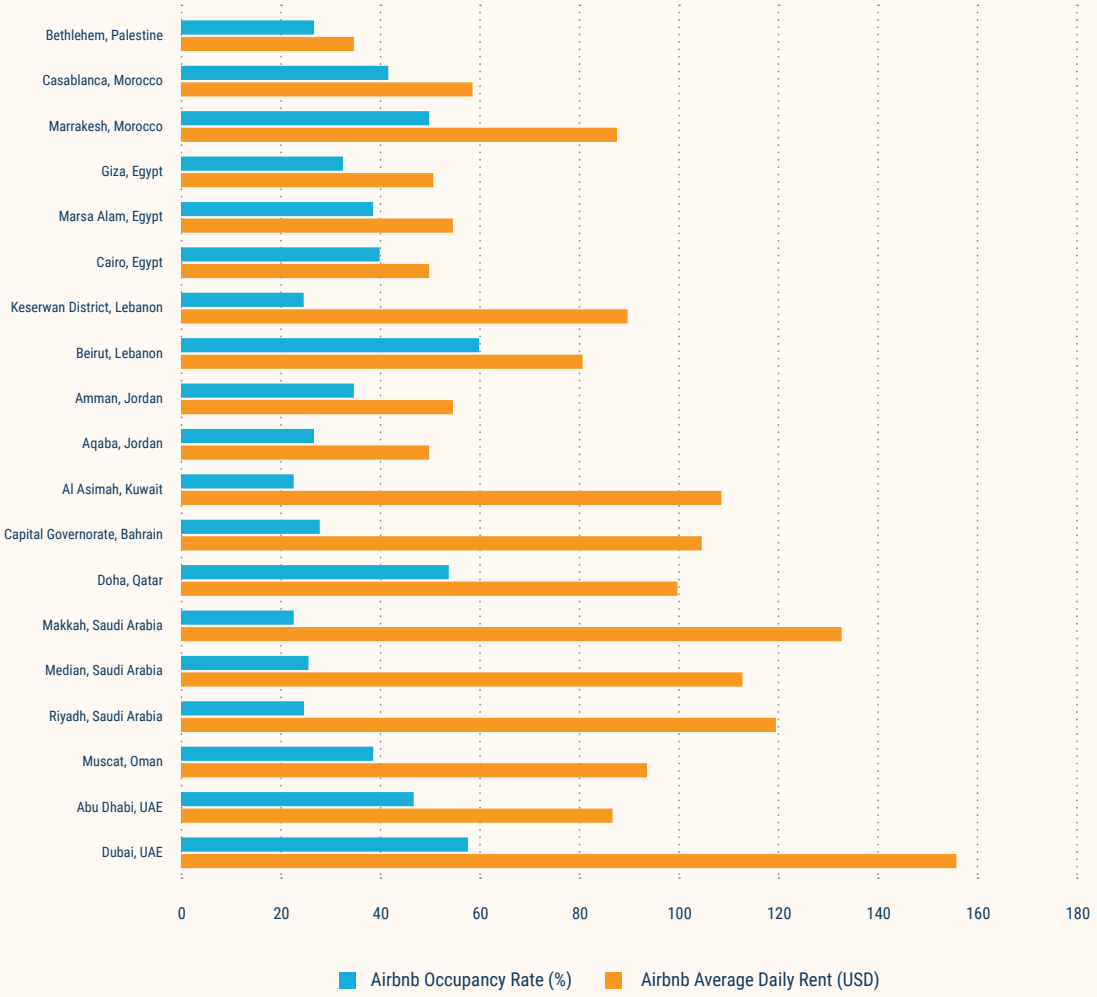
In the middle of 2018, the Egyptian parliament ruled that ride-sharing companies were allowed to operate but would have to pay fees and comply with data-sharing requirements designed to protect the safety of passengers and drivers. The approved law involved five-year renewable licences for the operators, and annually renewable special licences that the drivers would have to acquire to transport passengers legally. Uber (which now owns Careem) remains committed to Egypt, as the country's large population and geographical size both ensure it will remain a robust latent demand for ride-sharing services. Uber continues to invest in the country and to hire drivers.

House-sharing

Beyond ridesharing, Airbnb has been more successful than Uber in initiating operations in the Arab region. This can be seen in Figure 18 which shows Airbnb statistics for a selection of Arab cities. It is highly active in the UAE, where there are almost 7,000 listed properties. In Dubai, Airbnb-listed properties earned over $100 million in 2018 alone, representing an increase of almost 70 per cent compared to 2017. Further, Egypt is the fastest growing Airbnb destination in Africa, while Morocco has more than 20,000 listings for properties. Jordan, Lebanon, Bahrain, and Qatar also have a substantial selection of short-term rentals on the marketplace. Both HomeAway and Couch Surfing, the predecessor to Airbnb, are also active in Dubai and Egypt. The Airbnb market in Saudi Arabia is less developed, with less than 600 total listings in Riyadh, Medina and Makkah combined. Due to instability, some Arab countries have limited active listings, such as Iraq, Syria, and Somalia, while tourist capitals such as Dubai and Marrakesh have thousands of listings, high average rents, and high occupancy rates.[231]

231 AirDNA MarketMinder, 2019.

Figure 18. Airbnb Statistics for a selection of Arab cities



Source: Al-Ubaydli, 2017.

Box 21. How Technology Platforms Assists Refugees

In another area of success, technology platforms have been assisting refugees to get their lives back on track. Refunite and Trace, and Face, are platforms that help separated families reunite. Refugees Welcome uses the Airbnb formula to match refugees with families willing to host them. All are non-profit apps in line with the original intentions of the sharing economy – as a way to connect people with underutilised resources that they need.

Crowdfunding

Crowd-funding platforms could play an important role in connecting parties. A study done in 2017 by Price Waterhouse Cooper (PWC) showed this emancipatory effect in the Middle East. In both western countries and the Middle East, females account for only around 20 per cent of those who seek crowdfunding. Yet in the Middle East, females were almost twice as successful as males in securing funding. Co-founder and CEO of the Crowdfunding Centre, Barry E James, attributed this to cutting out the middlemen and giving males and females equal access to finance; both of which are virtually impossible without the sharing economy.

Box 22. Bassita's Click Funding Model

Clickfunding is another model for crowdsourcing. It was created by Bassita in Egypt, a social enterprise that specializes in awareness and fundraising positive initiatives through connecting different stakeholders including media, governmental entities, UN and development agencies, NGOs, and private sector entities.[232] The patented click funding model engages social media users in raising funds for positive initiatives through interacting with the awareness campaigns they like and prompting them to go viral. This is possible through matching campaigns with sponsors who fund their causes as a result of the interactions of social media users. The more users that comment, share or like a campaign, the more the sponsors provide funds for the initiative or cause being supported. Bassita so far has managed to raise more than $700,000 engaging 12 million social media users.

The campaigns included UNICEF Water for Life campaign, to fund water connections for people in Egypt and, One Click to Move campaign, raising awareness about people with disabilities in collaboration with Helm, a local NGO.[233]

Finally, grassroots, and institutional countermeasures are increasingly becoming more prevalent. These include platform cooperatives, which are similar to worker cooperatives, and worker unions. It is important to note that not all sharing economy platforms are focused on making money; some of them, like CouchSurfing, remain social enterprises/non-profits that seek to challenge the for-profit model.

JORDAN
View of the Roman Theater and the city of Amman.© Shutterstock

232 Bassita, n.d.
233 Ibid.

Box 23. Malaeb: Sports connecting people – A sharing economy start-up in Bahrain

Malaeb is a social community app, that falls under the sharing economy, by connecting people through sports. Using the app, users can book sports venues around them or organize and join pick-up games. The company was founded in 2016 by Bahrain's Yasser AbdulAziz and Ahmed AlRawi, in response to Abdul-Aziz's struggles in finding venues and organising football games in Bahrain.

In its first year Malaeb had over 6,000 bookings and made over BD15,000 in revenue, helping its users join over 200,000 games. Its expansion beyond Bahrain's shores commenced a mere six months after its launch, starting with Kuwait, and then Saudi Arabia, Oman, and finally the UAE. Through their service, the founders have helped to overcome the lack of online presence for sports facilities.

Despite this, there have also been downsides to the sharing economy. For example, the sharing economy has contributed to the casualisation of labour, with workers losing previously secure rights such as sick leave and social security coverage. It also seems that job satisfaction is high only for individuals who utilise the sharing economy as a supplementary source of income, whereas those who rely on it for a living are often dissatisfied.

Moreover, critics argue that the sharing economy tilts the economic playing field in favour of those who own and control critical platforms, such as Uber and UpWork, while advocates for low-income groups have argued that Airbnb has decreased the availability of low-cost housing. At the same time, Airbnb landlords can often escape the regulations that would usually apply to landlords, especially in terms of rights and protections.

In the Arab region, there is a lot of evidence that the current regulatory and legal systems exhibit limited effectiveness. One therefore cannot discount the risk that, if not properly regulated, the sharing economy may facilitate further discrimination against minorities, women, persons with disabilities and other groups.

Sustainable Urban Planning: Between Education and Practice

In addition to emerging urban technologies beginning to proliferate in the dialogue around urban planning in Arab cities, lower-tech planning solutions are also coming into the spotlight. Just as much as smart cities and technology, policies encouraging mixed use development, walkability, vernacular architecture and city planning, and integrated transportation planning are at the forefront of a new paradigm in planning. With respect to urban planning, land-use models have become more efficient, as cities replace parking with other uses. Such a significant impact on cities infrastructures initiates a reconfiguration of roads, sidewalks, and paths into a more efficient urban form. This translates into dense developments around a robust network of car-free zones that allow people to get around on their own terms.[234] These signal a shift in thinking toward a human scale for the urban environment, as is advocated in the NUA.

234 UNDP, 2018b.

KINGDOM OF BAHRAIN
Bahrain. © Derasat

Publications on the topic of the sustainable urban planning of Arab cities have begun to emerge, including '***The Arab Strategy for Housing and Sustainable Development 2030***' from the Arab League of States, '***Local Climate Action Highlight***' from UN-Habitat, and the UNDP's '***Arab Cities Resilience Report***'. The publications urge the Arab nations to commit to targets of limiting urban sprawl, increasing the affordable housing stock, and bringing in participation from different sectors of the population.

An additional possible shift is the acknowledgement of traditional 'Islamic Urbanism' as a response to some of the problems of sprawl faced by Arab cities today. Historically, settlements throughout the Arab region used narrow, winding streets and small building typologies, offering a high degree of walkability, density and crucial shade.

This typology oriented itself around core functions such as markets and mosques, which were numerous and accessible on foot (much like the 'new' concept of a 15-minute city).[235] In the modern age, newly built parts of Arab cities tend toward the North American-style gridiron pattern intersected by large highways and limited human-scale infrastructure. This has especially been the case in the GCC countries, where rapid growth in many urban centres has resulted in the creation of super blocks with limited walkability and human scale. It is also worth noting that large open spaces, plazas, and European style boulevards are not always suitable in hot climates and may become even less comfortable with rising temperatures. The mismatch in urban planning typology with the local climate leads to energy intensive solutions, such as air-conditioned pedestrian zones as is the case in Doha, Qatar.

235 Bianca, 2000.

In order for Arab cities to grow in alignment with the goals of sustainability and equity, urban planning professions must be given a place at the table, and the importance of the field must be recognised by local and national leaders. Currently, there is a lack of urban planning expertise in the region. The number of universities that offer urban and regional planning programs are relatively small in the region, compared to the number of cities, and the percentage of urbanized areas. Due to the complexity of the urban planning issues, and the interdisciplinary integrated approaches needed to deal with complicated urban challenges, the results of urban development will not always be satisfactory when well-equipped urban planners are not involved in development plans, on different national, regional, and local levels. For example, in Egypt, there is only one faculty of urban and regional planning in Cairo University, and three departments of urban planning – as sub-departments – in faculties of Engineering at Cairo University, Azhar University and Ain Shams University.

Bringing the importance of planning schools in the Arab region and the content of their programs to the attention of politicians and decision makers is necessary to shift the planning paradigm toward sustainability and equity.

Towards Collectively Equitable Urban Life in Arab Cities

While other parts of the world engage in efforts towards implementing advanced infrastructure systems that are resilient and efficient in facing the most pressing global challenges, the Arab region often remains stagnated in conventional infrastructure models. Adopting a systemic, integrated approach in infrastructure planning that incorporates small scale interventions, rather than grand schemes would better provide for the needs of city residents thus enhancing their quality of life.

Moreover, planned projects potentially solidify entrenched divisions, which has become particularly noticeable in conflict cities. If cities are not planned and managed in an inclusive and participatory way, the outcome could very well be a city that serves a select group at the expense of the majority. In many ways, this is a realisation of the warning included in a recent UNDP report, which makes it obvious that disparities in opportunities rather than income will be the main source of global inequality.[236]

Conclusions and Takeaways

- Rhetoric vs. Reality: Arab states (particularly in the GCC) are proposing numerous initiatives and programs that at their face seek to accommodate the New Urban Agenda and implement the SDGs. The extent to which this is applied on the ground through actual projects varies considerably. In some instances, policies contradict the SDGs, such as housing policies promoting sprawl and thus undermining the premise of these initiatives. As such there needs to be a better integration between what is envisioned and stated on the international stage and what is implemented on the ground.
- Adoption of New Forms of Infrastructure: Movement patterns across cities largely depend on how workplaces, services and recreational opportunities are spatially organised with respect to housing and homes (ie. 15-minute cities). It is crucial for cities in the region to reflect on the spatial distribution of different land-uses and to integrate new infrastructure systems with the goal of promoting integration, improved access and better social integration. The following three sectors require more focus: (1) smart mobility systems that move beyond transportation as spectacle and embrace micro-mobility (ie. environment friendly modes such as biking or walking);

236 UNDP, 2019.

(2) a comprehensive implementation of smart city systems that fully address notions of privacy and human rights and where broadband access is a right accessible to all; and (3) a comprehensive strategy for implementing 'green urbanism' aimed at creating truly inclusive urban environments.

- Pooling Resources for Data Collection: For the gathering of disaggregated data on digital platforms and the sharing economy, a framework must be developed. In the absence of this, policymaking in the Arab region will remain arbitrary, unpredictable, devoid of empirical support, and unresponsive to local developments. Compelling companies to share data might also merit consideration, as the lack of transparency may generate anti-competitive tendencies. An ambitious corollary could be the establishment of independent research centres dedicated to urban planning, that would be able to produce high quality reports that support policymaking.
- Embrace the Growth of the Sharing Economy: The booming of the sharing economy globally may hold a large potential for urban development in the Arab context and has often proven to be inevitable despite regulatory efforts. There should be a balance between allowing for technological and social innovation whilst ensuring that benefits are felt by their citizens. In many contexts, the sharing economy has offered users an economic and social lifeline – a job where no other job was available; a way to eke out a living; or access to goods and services that have been chronically out of reach. In an Arab world, where feelings of economic enslavement are pervasive, this is a crucial advantage.
- Stakeholder Engagement: Arab city governments must begin to engage stakeholders in more inclusive ways. This includes vulnerable groups, persons with disabilities, women's networks, youth and elderly among others. Devolving power to local authorities can increase the effectiveness and responsiveness of regulations, as well as make them more accountable and responsive to local needs. This is especially important in the domain of protecting worker rights, as the new environment is becoming increasingly complex.

SYRIA
Syria.© UN-Habitat/ Samer AboAlway

05

Localising and Financing the SDGs and NUA in Arab Cities

Introduction: Towards the Localisation of the SDGs and the NUA

In pursuit of the 2030 Sustainable Development Agenda, this chapter goes deeper into an actionable approach for Arab cities to localise the SDGs and to plan for sustainable urban development in order to course-correct and to optimise their use of resources. While some of the goals may seem lofty, they can prove themselves attainable, due in part to the amount of wealth available for mobilisation in the Arab region, as well as the economies of scale offered by the high levels of urbanisation in Arab countries. This chapter urges national governments to act on recommended frameworks and implement necessary reforms allowing cities to pursue the guidance offered here.

Local budgets across most Arab countries rely heavily on intergovernmental transfers. Consequently, if national income fluctuates, so does the city's ability to deliver on its responsibilities to its citizens. The 2011 oil price shock, when a downturn in central government revenues from oil led to a fiscal contraction in municipal budgets, is an example of the challenges of high fiscal dependence on central governments. The situation was exacerbated by military conflicts that induced large waves of rural-urban and trans-boundary migration, adding additional demands on already small local government budgets. Box 24 provides an example of municipal budgets that rely heavily on intergovernmental transfers in the case of Saudi Arabia.

IRAQ
Mosul team with old lady.© UN-Habitat

Box 24. Municipal Budgets and Revenues in Saudi Arabian Cities[237, 238]

Saudi Arabia created a National Transformation Program (NTP) that directs local governments, or *Amanahs*, in the establishment of sound fiscal policies through the introduction of new financial instruments. The goal of the NTP is to increase the share of annual budgets supported by own-source revenue of municipalities to upwards of 40 per cent. This move has been slower in small and medium cities, as compared to larger cities that have better fiscal management capacity. While significant progress has been made, 60 per cent reliance on government transfers still signals significant shortfalls in terms of the ability of cities to finance their expenditure, not to mention to implement SDGs locally.

Abha Amanah (Abha Municipality)

Abha is a medium-sized city in the south-west of Saudi Arabia with approximately 1 million inhabitants. According to the Saudi City Profiles developed by UN-Habitat and the Ministry of Municipal and Rural Affairs, in 2016, only 20 per cent of the City of Abha's annual operating budget came from own-source revenue. The remaining 80 per cent was received through transfers from the national government. A large portion (more than 50 per cent) of the annual budget goes to expenditures for the operation and maintenance of existing services and programs in the city, with an additional 10 per cent going to salaries.

Jeddah Amanah (Jeddah Municipality)

Jeddah is one of the largest cities in Saudi Arabia. With a population of approximately 4 million, it is considered the country's centre of commercial activity. Roughly 36 per cent of the city's annual budget came from own source revenues in 2016. That is supplemented by a 64 per cent national transfer. This exceeds the average municipal own-source revenue in Saudi Arabian cities by 16 per cent. However, as a large city, Jeddah allocates nearly 66 per cent of its total annual budget on the operation and maintenance of existing services and programs, with an additional 21 per cent for salaries.

The largest sources of local revenue generation in the Arab region are a combination of property taxes, other taxes on economic activities such as sales tax, and public service fees and charges.[239] Though this is the typical mix of local revenue generators in most cities worldwide, Arab cities see lower rates of local revenue collection due to a combination of centralised budgeting mechanism on the national level, corruption, inefficient transaction and land records management, and poor accountability.

In some instances where utilities and other services are operated by parastatal organisations, these revenues are not accessible to city governments. As a result, cities are unable to consistently meet the demands of operating costs, such as employee salaries, building rents and equipment, and instead have to rely on subsidised operations by utilising intergovernmental transfers meant for capital investments.

237 Ministry of Municipal and Rural Affairs, 2019a; b.
238 UN-Habitat City Profiles, 2016c
239 UN-Habitat, 2017c.

To overcome these challenges, several countries have adopted models of infrastructure development through public-private partnerships (PPP). While Dubai is a good example of successful developments through PPPs, other examples exist in countries like Egypt and Tunisia, which can serve as more transferable models for other Arab countries. While acknowledging the benefits of PPPs, one must also acknowledge that these projects still tend to be catalysed through national government policies and programs like the establishment of special economic zones (SEZ), tax concessions and exemptions, or transfer of public lands for private development.

Centralized forms of urban governance and development have not proven sustainable in the long run. Research shows that cities and local governments are most attuned to the needs of their residents and therefore best positioned to respond. Experiences from developed economies suggest that those city governments that have greater control over determining their development objectives with the means to mobilise resources in their pursuit, tend to be better able to optimize their economic growth opportunities and contribute to shared prosperity.

This chapter illustrates a clear pathway for local governments to follow in order to fast-track their efforts to achieve the SDGs by 2030. This pathway involves Arab cities taking a three-step approach: setting SDG-based goals, making realistic financial and resource allocation plans and choosing an appropriate financial strategy.

State of SDGs: Current Trends and Implementation in Arab Cities

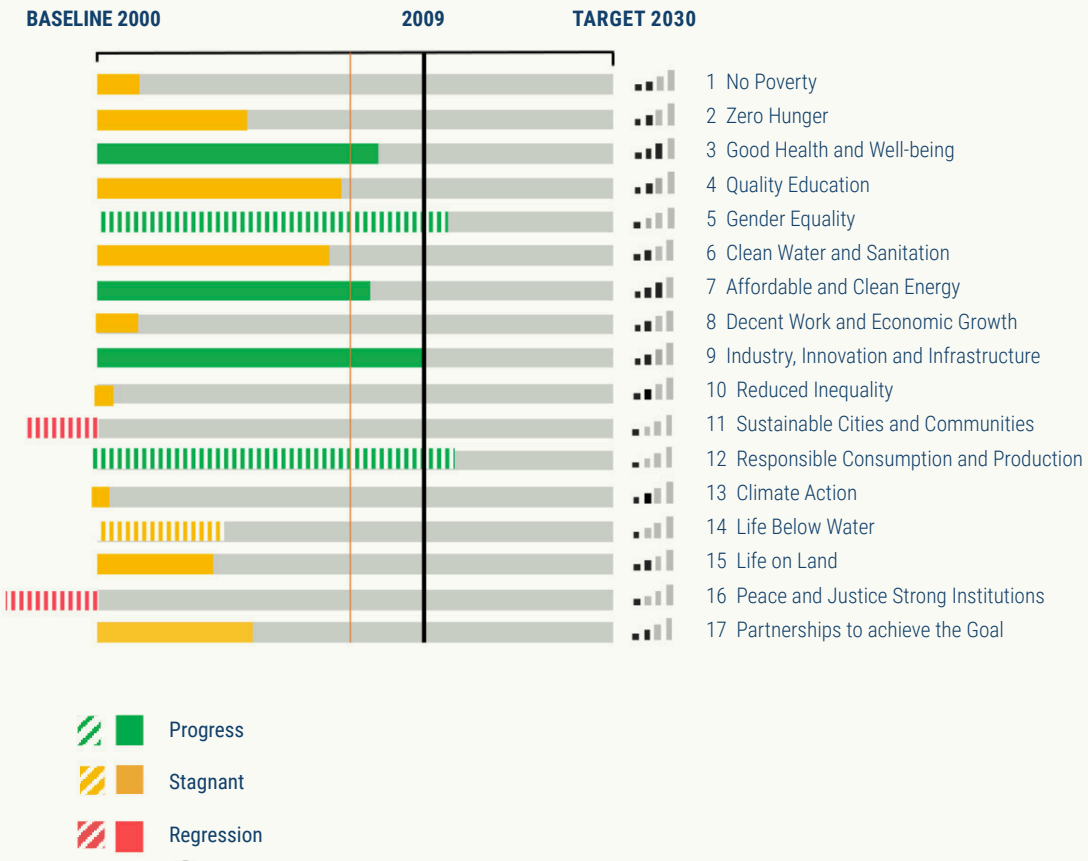
The SDGs and the NUA provide an important framework for establishing development objectives to guide countries until 2030. Arab countries have demonstrated their commitment towards achieving these goals by becoming signatories to both global agreements. Given the high level of urbanisation in the Arab region (roughly 60 per cent), achieving the SDGs in cities will be implicit to achieving the SDGs nationally. The following section offers a snapshot of the current status of sustainable urban development across Arab countries.

One of the most significant challenges when it comes to reporting on the progress of sustainable development in the Arab region is the paucity of data. According to recent reports from ESCWA, nearly half of the SDG indicators are missing in Arab countries.[240] Such data limitations make it difficult for policymakers to understand gaps and shortfalls and identify who is being left behind.

A recent report from ESCWA titled '***Between now and 2030: A Statistical Overview of Progress Towards the Sustainable Development Goals in the Arab Region'*** provides an overview of progress towards each of the 17 SDGs. It depicts the current state of progress towards implementation between the baseline of 2000 and the target year 2030. As such, the report provides a detailed assessment of available indicators for each of the SDGs and depicts where the Arab region stands. A summary of this can be seen in Figure 19 below.

240 ESCWA, 2021

Figure 19. Progress Towards the SDGs in the Arab Region



Source. ESCWA, 2021. Note. The average progress for each goal is normalized on a scale of 0-10. The distance from the farthest left point on each bar to 2019 is considered 'unfinished business'. The grey shade on the bar represents additional progress needed to achieve the 2030 targets. The dashed bars reflect those where data scarcity is noted. Owing to the lack of data for some goals, the results should be interpreted with caution.

The assessment of progress in the region suggests advancement on SDGs pertaining to health and affordable clean energy, including industry, innovation and infrastructure. Progress can also be seen in the goals related to hunger, education, clean water and sanitation, life on land and partnerships. On the other hand, the goals on poverty, decent work and economic growth, reduced inequalities and climate action have either stagnated or experienced very limited results.

Unfortunately, when it comes to the goal on sustainable cities and communities and on peace, justice and strong institutions, evidence of regression can be seen. Despite this, more needs to be done to close the data gap in order to paint a more comprehensive picture; this is particularly the case for the goals on gender equality, responsible consumption and production, life below water, sustainable cities and communities, and peace, justice and strong institutions.[241]

241 ESCWA, 2021

While data has proven to be a significant challenge when it comes to reporting on the SDGs in the Arab region, many Arab countries are in the process of overcoming their data shortfalls. For example, several countries have already submitted national reports presenting their progress towards the implementation of the NUA, including Algeria, Morocco, Bahrain, Egypt, Palestine, Tunisia, Jordan, Lebanon and Kuwait, with the Kingdom of Saudi Arabia in the process of submitting theirs (Box 25).

Box 25. The State of National New Urban Agenda Implementation in Arab countries

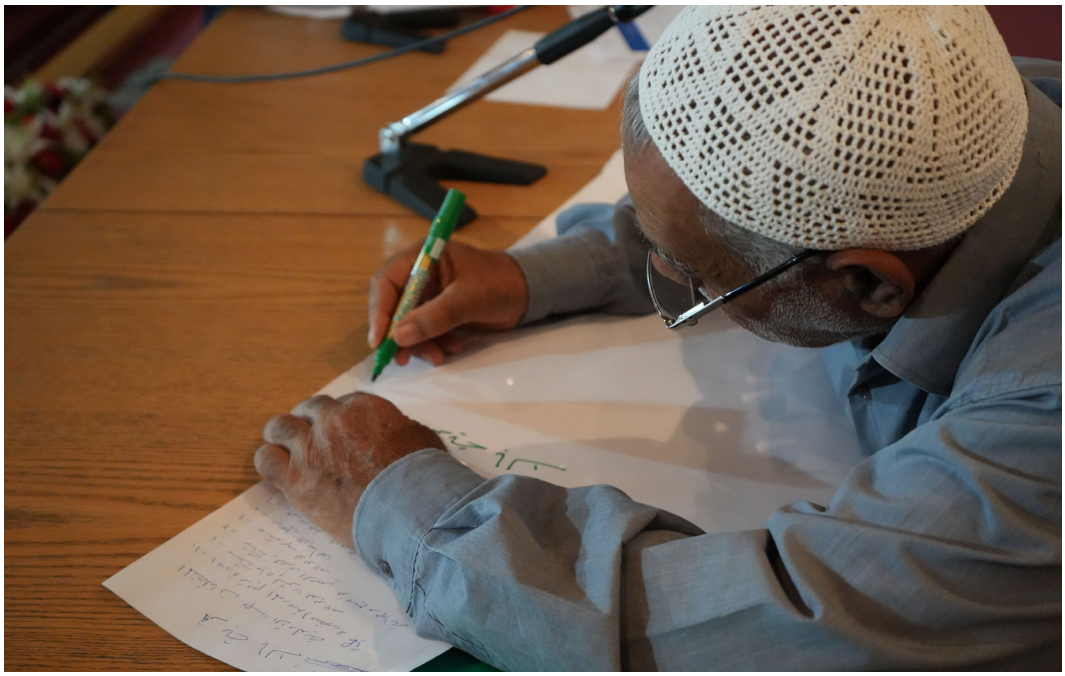
The Arab countries that presented reports to monitor the progress towards implementing the NUA included Algeria, Morocco, Bahrain, Egypt, Palestine, Tunisia, Jordan, Lebanon and Kuwait. These countries differ in terms of size, population, income, GDP, urbanisation level, main economic activities, level of human development, competitiveness, and so on. Despite this, all of them committed to integrating the different pillars of the NUA into policymaking, planning, budgeting and governance. In addition to this, they committed to adopting gender-sensitive and climate change policies and programs.

The economic slow-down (end of 2019) and the COVID-19 pandemic (2020) increased the challenges to financing NUA implementation. Most countries adopted fiscal stimulus packages to overcome the negative impact of the pandemic. Despite this, more reforms are needed to secure sustained fiscal resources for NUA.

The reporting Arab countries took several measures to empower the local administration, especially in the implementation process of NUA. However, more bold measures are needed to move towards decentralisation and delegating more functions to local authorities, based on the subsidiarity principle. Of course, this delegation should be coupled with raising the capacity of local authorities and increasing fiscal resources at the local level.[242]

In addition to this, on the city level, some Arab cities have started reporting on the SDGs by submitting Voluntary Local Reviews. The first two cities are Amman (Jordan) and Aghadeer (Morocco). This will soon be followed by Irbid (Jordan), Ramallah (Palestine) and Tunis (Tunisia). Box 26 details a specific partnership that was established to deliver Amman, Jordan's Voluntary Local Review.

242 UN-Habitat, (2022d).



SYRIA
Syria.© UN-Habitat/
Samer AboAlway

Box 26. Amman, Jordan Voluntary Local Review Project

With 2030 approaching, there is a need to address the challenges of urbanisation—at the local, national, and international levels—by creating an evidence-based roadmap to build cities resilience and enhance their sustainability. The most critical element to this is up-to-date information, data, and analyses of urban contexts and trends.

Within this context, supported by UNDESA, UN-Habitat is implementing the "Inter-regional cooperation for the implementation of the New Urban Agenda" project with the aim of improving the capacities of selected countries and cities in the implementation, monitoring, and reporting of the NUA and SDGs.

As a centre for international cooperation, Amman City is crucial to the achievement of the SDGs in Jordan and the Arab region. In this vein, UN-Habitat, ESCWA and UCLG-MEWA, in close cooperation with the Greater Amman Municipality, led the development of the first VLR in the Arab region. The VLR discusses the city's actions and performance against the selected SDG targets based on available data and analyses, the consequent implications on policy and practice to improve Amman's performance against SDGs. This VLR has additionally been developed in parallel with the second Voluntary National Review of Jordan, creating the opportunity to reinforce national-local policy coherence for sustainable development.

In his Quadrennial Report on *the 'Progress Towards the Implementation of the New Urban Agenda'*, the Secretary General acknowledges the important role of the New Urban Agenda in contributing to the localization of the 2030 Agenda for Sustainable Development. In doing so, the New Urban Agenda has served as an accelerator of the SDGs and other global development agendas by driving advancements in the areas of urban policy, urban governance, urban planning, municipal finance and technology.

Towards Localising and Financing the SDGs and NUA in Arab Cities

There have been numerous estimates for the amounts of expenditure required to finance the global infrastructure pipeline. According to UN-Habitat at least $70 trillion of global infrastructure investment is needed between 2016 and 2030. An additional $14 trillion of infrastructure investments is required by 2030 to meet the minimum climate change targets set out in the COP 21 declarations.[243] Similar projections have been made by think tanks and other research groups.[244] While the World Bank estimates that USD $4.5 to USD $5.4 trillion is needed to finance the global urban infrastructure gap, however, only 3 per cent of this amount is available through official development assistance, thus requiring new forms of financing.[245] Improving infrastructure productivity through making calculated choices about which projects to execute, streamlining the delivery of projects, and making the most of existing infrastructure is crucial. According to the study, if infrastructure owners around the world were to adopt proven best practices, they could increase the productivity of infrastructure investment to achieve savings of approximately 40 per cent. One approach is to get more out of existing assets as an alternative to building new ones – a repurposing of sorts (New York City's Highline project is an indicative example).[246] In the long term, this will also produce savings and limit risks and insurance costs for owners by avoiding sunk costs and damages caused by disasters or short-sighted investment. Through all of this, the aim should be to make communities safer, more resilient, inclusive and sustainable for all.

Discussing the cost of infrastructure development in the Arab region necessitates an assessment of the extent to which such measures have been, or are planned to be, adopted. An unpacking of what infrastructure means in its expanded capacity, and a discussion of challenges facing cities in repurposing existing infrastructures to comply with a changing environment, whether due to climate, urbanisation, or technological innovations, is needed.

While the Arab world suffers from a lack of comprehensive statistics, the Global Infrastructure Hub (GIH), a G20 initiative, has included a select set of Arab countries in its global analysis of infrastructure expenditure to determine the gap in investment; this can be seen in Table 5. According to the table, Egypt, for example, has an investment projection of USD$ 445 billion by 2040, while the actual investment need is USD$ 675.4 billion; this shows an infrastructure investment gap of USD$ 117.6 billion. In the case of Saudi Arabia, the infrastructure investment gap is USD$ 115 billion (2016-2040). Morocco's investment gap is USD$ 40 billion, while Jordan and Tunisia are USD$ 16 billion and USD$12.7 billion, respectively. This underscores one of the most significant barriers to the effective implementation of the SDGs and NUA in the Arab region – financing.

Often, a lack of access to adequate capital is criticized as the reason for cities being unable to effectively address chronic challenges such as water scarcity, food insecurity, poverty, income inequality, underemployment, healthcare, and crime. Climate change and other natural disasters have only exacerbated this challenge by adding the burden of responding to acute shocks.

243 UN-Habitat, 2015b.
244 McKinsey, 2013.
245 World Bank, 2018a.
246 McKinsey, 2013.

Table 5. Infrastructure Investment Gap in Selected Arab Countries

	Total Infrastructure investment (SUSM last 5 years)	Private Infrastructure investment (SUSM last 5 years)	Infrastructure quality (1-7)	Investment Current (2016-10)	Investment Needed (2016-10)	Gap
Saudi Arabia	126,244	12.478	5	499	613	115
Morocco	47,460	8,522	4	210	267	40
Tunisia	N/A	N/A	N/A	53.5	76.8	12.7
Egypt	75,733	1,000	3.4	445	675.4	117.6
Jordan	N/A	N/A	N/A	63	81	16

Source: Global Infrastructure Hub, 2022.

With the current fiscal authority residing primarily outside the purview of the local governments, central governments need to jointly, undertake a three-step approach to achieve sustainable urban development, vis-*à*-vis SDG-11 and the New Urban Agenda:

1. Define what is needed
2. Evaluate how much resources need to be mobilized
3. Identify the necessities for bridging the financial gap and determine which financial instruments are best fit for purpose

The following subsections provide a detailed breakdown of each step so that countries can make strides towards closing the financing gap and pivoting towards a viable model for achieving sustainable urban development.

Defining What is Needed

Evidence shows commonalities in shared values across countries within the same Arab sub-regions. For example, the Southern Tier countries, all show a need for improvement in areas of poverty, food security, access to healthcare, education, clean water and sanitation and infrastructure. Meanwhile, their performance on climate goals and responsible consumption is comparatively high. Likely, attributed to the low rates of consumption, due in part to the challenges they face with extreme poverty conditions.

On the other hand, the most advanced economies, or the GCC countries, indicate a performance at the opposite end of the spectrum. Gender equality, however, is a concern across all four groups of Arab countries.

Aligning Development Objectives to Global Agendas at all Levels of Government

The first step towards achieving urban sustainability is to mainstream the SDGs into the development planning process, starting with the national government's medium- to long-term plans, which establish a set of goals and a defined timeframe. This is particularly relevant for Arab countries where a vast majority of decision-making and fiscal authority currently lies with the central government. There are some visible instances of national alignment in the wealthier GCC nations, for instance the *Bahrain Vision 2030* plan and the Kingdom of *Saudi Arabia Vision 2030* framework. However, every country needs to commit and identify their key priority areas without inhibition due to resource availability, this will be particularly challenging for the Arab Southern Tier countries. By assessing performance and identifying priority areas, Voluntary National Reviews can be an important tool in aligning a country's planning frameworks with the priorities of the SDGs.

In the process of establishing the longer-term vision, national governments need to include provincial and local governments as key stakeholders involved in its implementation; such that a realistic vision is created with adequate commitments for its implementation. In many instances, national visions and policies are not realized, primarily due to the lack of local stakeholder buy-in or the technical capabilities of centrally appointed municipal leaders. Furthermore, the national visioning process needs to be harmonized with and accompanied by similar sub-national and local visioning processes that produce plans with specific and measurable outcomes. Local plans should also pursue representative processes that include males, females, youth, persons with disabilities, ethnic and religious groups, the elderly, resettled migrants, refugees, unemployed, businesses, NGOs and all levels of government.

SDGs as a Monitoring Framework to Measure Gaps and Track Progress

SDGs with their targets and indicators can contribute to monitoring in order to track progress. Another important facet of planning is the dimension of measuring the status quo. How many people currently live-in poverty; what is the current employment status of people living in cities; how many children have access to basic education; and is public transportation meeting the needs of the population and is it affordable and accessible to all? These are but a few examples of questions that require quantitative measures. For countries that do not have a robust statistical system, this planning exercise is an excellent opportunity to simultaneously invest in developing local monitoring capacities that start with taking stock of the current situation in line with the established development objectives.

For the first time in the history of global development agendas, governments acknowledge the need for disaggregated and granular data. In other words, the importance of data being available at all levels of government (national, regional and local), including for urban (and rural) areas and for different demographics (ie. by age, gender, migration status, etc.) is now widely accepted. As and when the Arab countries establish the necessary monitoring frameworks through targeted investment in statistical capacity building at both national and sub-national levels, city governments will be better positioned to diagnose the problems they face more accurately and track progress on the downstream impacts of their programs and projects. This will allow them to course-correct as needed. The recently adopted Global Urban Monitoring Framework, as part of the Harmonized Global UN Systemwide Strategy for monitoring the Sustainable Development Goals and the New Urban Agenda, is a good starting point. It seeks to harmonize existing urban indices and tools to track progress and ensure thematic integration and interlinkages among various dimensions of development, disaggregation of data, and inclusion of groups that are traditionally excluded.

In countries where these monitoring frameworks are being applied, citizens, think tanks and other stakeholders can also act as agents of accountability. Global goals can and should be contextualized to the city-level through selective identification of SDG indicators that are relevant to cities. For instance, cities that aspire to be carbon neutral should also include indicators from SDG 13 into their monitoring practices, along with indicators from SDG 11.

TUNISIA
Tunisia.© UN-Habitat

Cities can also take independent charge of data generation through inclusion of monitoring and evaluation plans within their programs and development projects. Cities also maintain administrative databases that, if properly managed, can be a valuable source of information. Some examples include the number of households with metered electric connections; number of households that have secure land tenure; and number of housing units that meet adequate standards of sustainable housing.

City Profiling

There are several methods and tools developed to help the city planning system to understand and define what is needed. UN-Habitat City Profiles are formulated to offer a cross-sectoral perspective on urban vulnerabilities that will inform interventions by local authorities, humanitarian agencies and others to improve urban development and alleviate poverty. Urban profiling is a methodology implemented in various countries throughout the region, including in conflict-affected countries. Through urban profiles, UN-Habitat seeks to provide up to date, holistic documentation, and analysis of urban conditions in key cities, synthesising information and insight from existing sources and priority sectors, supplemented by direct field research by UN-Habitat teams based in each city.

The Regional Office for Arab States (ROAS) has an extensive urban profiling experience in the region. Since 2016, UN-Habitat has been working to develop City Profiles for conflict-affected cities in Iraq, Lebanon (Beirut, Tripoli and Tyre), Libya, Syria, and Yemen (see Box 27 and 26). Urban profiling guides humanitarian response and assists in the reconstruction and recovery of conflict-affected cities. The crisis in Syria has had a significant effect on the country's major cities, with large scale movements of population, damage to buildings and infrastructure and interruptions to markets. Cities represent multiple and inter-related formal and informal systems and need to be described and analysed in an integrated manner to captures the complexities of urban conditions. UN-Habitat's expertise in urban analysis, community approaches and crisis contexts have informed the development of the City Profiling process. In most instances, City Profiles are developed in close association with the concerned governorates and municipalities.

Box 27. City Profile for Beirut

The Beirut City Profile offers an important multisectoral and spatial analysis of the urban expansion of Beirut, including a diagnosis of the wide spectrum of challenges that the city has encountered over the past decades, including the most recent and devastating shock, the Beirut Port explosion.

The profile aims to offer a common understanding of how multiple shocks and vulnerabilities manifest across the city. The wealth of data, analysis and recommendations in the profile make it a reliable reference for a variety of users including local authorities, ministries, United Nations agencies, non-governmental and international organizations, academia, urban planning practitioners, among others.

The multi-scale approach used is key for an urban recovery response, to link local needs with city systems, and enabling national policies and regulations. The analysis highlights existing systems and governance structures' respective capacities to absorb shocks and suggests how these can be further strengthened to help the city bounce back and transform from a current fragile state towards a resilient and inclusive city. The Beirut City Profile also provides the evidence base for the development of the Urban Recovery Framework.

Box 28. City Profile for Mosul

Published at the onset of the military campaign that drove ISIL out of Mosul, UN-Habitat's City Profile of Mosul aimed to provide a comprehensive urban analysis and mapping assessment of the city's infrastructure, housing, social services, and demographics to help prioritize and plan the critical humanitarian and development assistance that would have been needed upon liberation. The report also underlines the factors that contributed to ISIL's occupation of Mosul in June 2014. It illustrated how decades of neglect, migration, and frustration with poor services created a situation where popular animosity was so great that, for all intents and purposes, Mosul fell to insurgents long before 2014.

Informal settlements increased significantly after 2003 due to a shortage of affordable land allocated for housing, lack of services and infrastructure investment, corruption, and poor governance. Some of these settlements became "self-ruled zones," incubators for extremism and radicalism. The city profile also describes the further deterioration of living conditions and services in Mosul after ISIL occupation as new families settled into the city from Syria and other parts of Iraq. Aside from mapping the targeted annihilation of religious buildings by ISIL, the report estimated that up to 75 per cent of the city's public buildings were destroyed or looted, these included directorates, universities, hospitals, schools, and utility buildings.

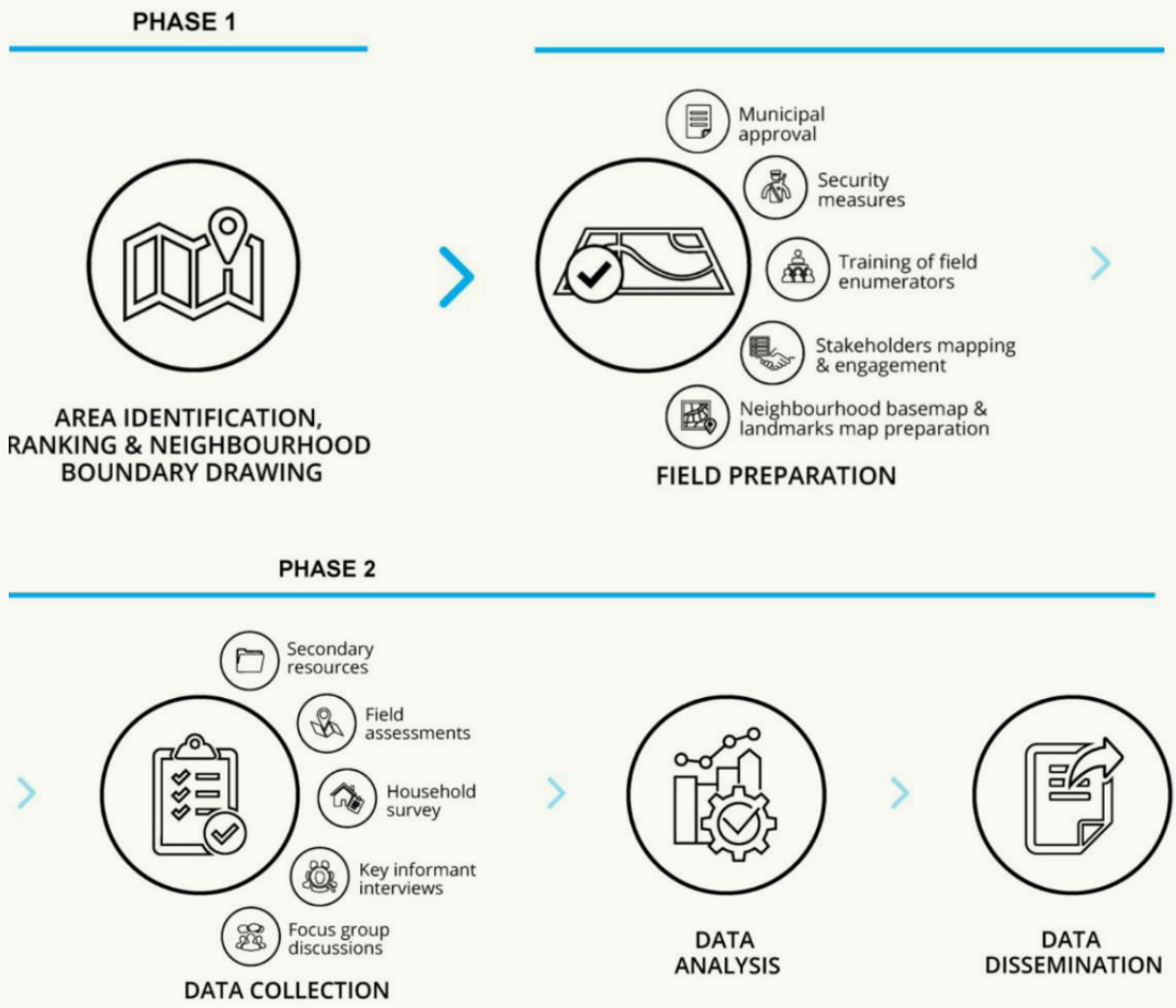
PALESTINE
Ramallah.© Media Clinic

The structure of the City Profile provides a pre-crisis baseline and data from the current situation to understand the impact of the crisis and are accompanied by detailed descriptions and analysis. Furthermore, City Profiles review the functionality of the city economy and services, diagnose capacities and coping mechanisms and identify humanitarian or development priorities. They do not provide comprehensive data on individual topics but seek to provide a balanced overview. In that way, it affords an opportunity for a range of stakeholders to represent their diagnosis of the situation in their city, provides a basis for local discussions on actions to be taken and helps to make local information and voices accessible to external stakeholders seeking to assist in development response.[247]

Neighbourhood profiling is an extended methodology for the assessments of disadvantaged neighbourhoods containing original multisectoral, multicohort, spatialized data that is analysed within an area-based framework. In Lebanon, 28 neighbourhood profiles were conducted, by the UN-Habitat and UNICEF teams.[248] Other partners have been involved in the project, including municipalities, local and international non-governmental organisations, university students and so on. Figure 20 illustrates UN-Habitat's City Profile methodology.

247 UN-Habitat, 2020b.
248 UN-Habitat and UNICEF, 2020.

Figure 20. UN-Habitat City Profiling Methodology



Source: UN-Habitat (Adapted)

Estimating Needed Financial Resources for Infrastructure Development

In the absence of quantifiable information on the costs to implement the Sustainable Development Goals and realize the New Urban Agenda, it is difficult for leaders and decision makers to accurately assess what resources are needed or identify shortfalls.

Therefore, once the gaps in physical infrastructure and other social needs of the population have been identified, the next step is to determine the resources required to bridge these gaps and by what date. The global estimates are of little use to local governments for resource management.

Types of Infrastructure Costs

Typical city planning practices account for population growth, experienced through intrinsic growth and death rates, within the city and adjust for anticipated domestic rural-urban migration over time. Climate change and other natural or man-made disasters in recent years have shown that for cities to maintain the quality of life of its residents, it needs to build resilience by accounting for new inducers of population growth such as unanticipated shocks. Such considerations are imperative for most nations in the Arab region. While natural population growth and rural to urban migration are the primary causes of urban growth in most cities around the world, in the Arab region, many cities have been growing (and declining) at an accelerated rate, due to regional climate and conflict induced migration. Such dynamics will be an important consideration for administrators when anticipating future infrastructure costs and should not be overlooked.

Current estimated resource requirements often limit their assessments to physical infrastructure. Accounting for ***soft costs,*** related to a city's capacity to self-govern through a proper institutional framework and trained professionals such as economists, architects, planners and civil engineers, is also necessary to ensure sustainable models of urban development and management. Therefore, resource determination needs to be undertaken on two fronts:

1. *Hard costs* or physical infrastructure costs
2. *Soft costs* or institutional infrastructure and operational costs.

The range of thematic areas which require assessment for hard costs can be large, but there is wide agreement that sectors such as ***housing, transportation, solid waste management, water and sanitation*** and ***public spaces*** are all a priority.

Among the Arab nations, there are a wide range of physical infrastructure needs. For example, the prevalence of slums and informal settlements is highest in the Southern Tier countries, with large Sudanese cities housing up to 20 per cent of their residents in such settlement types. Similarly, in the case of transportation, taking the example of Nouakchott (Mauritania), the city of 1.6 million people needs to develop a formal public transportation system with a baseline bus fleet. As of now, limited organized public transport exists in Mauritania and transit services are provided by private operators. In addition, construction of well-articulated bus stops that are safe and have accessibility features are required. With an area of 39 square kilometres, to ensure all households are within 0.5 kilometres of walking distance of public transport, roughly 50 such stops would need to be built.

The wealthy GCC countries, on the other hand, are in need of reversing their car-centric, sprawling urban development and pursue compact and transit-oriented urban development models instead. This will have significant physical infrastructure requirements. Dubai, for example, has a mass-transit option as part of its metro system, however, the coverage is rather limited. To ensure transit access for all, Dubai would need 2,600 buses at the rate of 1.2 buses per 1,000 population, according to the World Bank and PPIAF's Urban Bus Toolkit.[249]

Cities need to spend on operational and maintenance costs for their infrastructures and on creation and operation of local institutional infrastructure or 'soft costs'. Soft costs are of particular importance to Arab cities, which have limited professional capacity at the city-level. Specialized agencies such as city planning departments, transportation management agencies, budget and fiscal management authorities are critical for the long-term success of decentralized governance.

249 World Bank, 2007.

In a recent study conducted by AidData, through consultation with city planners from developing countries, it was found that the approximate annual cost for planning and land management institutions at the municipal level is estimated to be around USD$ 10 million for a large city of more than 1 million inhabitants, USD$ 3.5 million for a medium city of 100,000 to 1 million inhabitants and USD$ 1 million for a small city with less than 50,000 inhabitants.[250] As the decentralisation and transfer of power processes occur in Arab countries, these recurring annual costs need to be accounted for in assessing overall resource requirements.

Financing Reconstruction in Conflict Countries

The Arab region has seen significant civic and military unrest in the past few decades. Since the Habitat II Conference in 1996, 9 out of 22 countries suffered from at least one conflict, which has led to a weakening of the rule of law, declining operational capacity, a spread of informal housing, increased levels of crime and reduced safety.[251]

In such an environment, the perceived risk for foreign investors is considerably high. Arab countries can take steps to reduce these levels of risks by establishing a framework of investment guarantees that protect Foreign Direct Investment (FDI) flows to the local level. Several mechanisms at the international level are already in place. For example, the Multilateral Investment Guarantee Agency (MIGA), a part of the World Bank Group (WBG), provides political risk insurance to its investors. The United States also has the Overseas Private Investment Corporation (OPIC) to mitigate the risks faced by American investors overseas. Arab states should make good use of existing mechanisms and develop institutions and funds of their own to attract foreign investors.

One mechanism that could be considered is a sovereign subsidisation of premiums paid by private investors on risk insurance, which would reduce the cost burden of doing business in the region. Due to their existing fiscal capacity, regional development banks, such as the Islamic Development Bank, the Asian Development Bank and the African Development Bank can also play key roles in achieving these objectives.

Multilateral Development Banks (MDBs) are currently structured in a way that prevent them from lending directly to cities, but work is being done on creating frameworks where this could be possible. Part of this is the assessment of creditworthiness of municipal governments. As cities build their financial management capacity through endogenous efforts and through implementation of fiscal and regulatory reforms by higher order governments, MDBs such as the World Bank can support cities in assessing their creditworthiness through mock exercises that identify areas of improvement. Once critical areas of improvement have been addressed, frameworks that allow cities to access concessional debt instruments offered by MDBs through sovereign or sub-sovereign governments can be put in place.

In Sudan where conflict is ongoing, there are limited options to reconstruct the country and rebuild large infrastructure. However, with the help of international humanitarian organisations and foreign aid, the country has begun to reconstruct its health and public facilities. As of January 2020, there have been 44 health facilities, 6 rural courts and 5 schools constructed in 59 villages in five Darfur states.[252] This project is a collaboration between UN-Habitat and USAID, Swiss Agency for Development and Cooperation, Government of Japan, Government of Qatar, UNAMID and the cooperation of the Government of Sudan.

250 Stenberg, et al., 2017.
251 ESCWA, 2014.
252 UN-Habitat, 2020c.

It has been said that Yemen is experiencing one of the worst humanitarian crises in history. Humanitarian aid is needed by approximately 80 per cent of the population, and 14.3 million people are in dire situations. It is predicted that Yemen's programme to build institutions and economic resilience will cost €69.8 million. According to the World Bank, as of 2019, 81 percent of Yemenis lived below the poverty line, this is a drastic rise from the 33 percent in 2014. Local governments are necessary to sustain the population because central government institution lack the power, reach, and capacity to do so on their own.[253] Through 198 initiatives, which are said to be benefitting 6 million Yemenis, the Saudi Arabia Development and Reconstruction Program of Yemen (SDRPY) has played a significant role in aiding Yemen. SDRPY with the help of UN-Habitat has constructed housing that has directly benefitted 42,000 inhabitants.[254]

Financing Disaster Risk Management in the Arab Region

Disaster risk reduction can only happen when there is a suitable financial environment and framework that supports the process, especially in countries that are undergoing economic crisis and conflict. The Addis Ababa Action Agenda calls for climate and disaster resilience through development finance, diversification of financing mechanisms and instruments. It promotes developing capacity of national and local stakeholders to manage and monitor the financing of DRR and supports local and grassroot programs that generate employment, social security and basic health care services.

According to reports, the League of Arab States has asked its member states to increase their DRR budget to 1 per cent of their annual public spending and to develop more advanced DRR measures. The ***Agenda for Humanity*** encourages countries to increase resources for DRR through increasing tax, financial efficiency and emergency reserve funds. At 0.6 per cent of their annual public budget, Arab countries spend well below the average on DRR activities compared to the top performing country, which spends approximately 2.4 percent.

ODA to Arab countries from other global regions has significantly increased since 2011. Refugees in Yemen, Somalia and Syria receive a large portion of the cash designated for humanitarian help. Only a small portion of the funding is allocated to risk assessment and reduction while a sizeable portion of it is allocated to preparedness and recovery.

Necessities for Bridging Financial Gaps in SDG/NUA Implementation

Once the gaps have been identified and the costs of achieving development targets have been calculated, the next step is to mobilise sufficient resources to implement the projects. How resources are mobilized by local governments is a subjective matter, depending on a variety of factors such as the available municipal fiscal space to pursue capital investments, legal frameworks that empower local governments to engage in financial contracts with private investors via debt mechanisms or PPP setups, and the nature of the project that is being financed.

253 UNDP, 2020.
254 Kingdom of Saudi Arabia, 2022.

As previously discussed, a large portion of the current municipal budgets in the Arab region is supported through central government transfers. Recurring expenditures and operating costs are funded by regular resources such as local taxes, fees and charges, shared revenue, recurrent block grants and earmarked taxes with need for additional central government subsidisation.[255] Capital budgets are largely central government transfers. It is also often the case that in many Arab countries, a clear distinction between these two kinds of budgets and expenditures are not made and longer-term capital investments have a tendency to be deferred in order to prioritize short- to medium-term interventions that provide quicker returns.

Besides local revenues and intergovernmental transfers, countries in the Arab region also receive a significant amount of foreign assistance through 'Official Development Assistance' (ODA) and 'Other Official Flows" (OOF). Excluding the records for war and conflict countries such as Iraq, Sudan and Yemen and the high-income GCC countries, the range varies from roughly 1 per cent to nearly 10 per cent of GDP. These funds are typically tied to social programs targeted towards long-term capital investments (non-infrastructure) areas such as health, education and water and sanitation. Southern Tier countries as well as countries affected by war and conflict are heavily reliant on this international aid to maintain their day-to-day operations.

Increasing the Presence of Robust Legal Frameworks

Arab countries that have weak legal frameworks have struggled to enable development finance opportunities and therefore have a limited range of financing mechanisms at their disposal. This has resulted in a heavy reliance on government-based financing in the region. One of the most concerning ramifications of a weak legal framework has been the slowdown of economic growth, which has negatively affected the business environment and limited foreign direct investment resulting from the lack of investor confidence in the legal system. This highlights the urgency of improving legal and procedural systems, which has the ability to improve the performance of development indicators to establish a more competitive economy and increase municipal resources. UN-Habitat's work in Iraq is an example of how improved capacity and strengthened legal frameworks can increase local revenue collection (see Box 29).

Box 29. Municipal Financial Analysis in Iraq

Since early 2022, UN-Habitat has embarked in an effort to enhance local revenues streams, as part of its European-funded local development programme. It has engaged officials of the municipalities and utility directorates of the five cities of Mosul, Falluja, Baiji, Erbil and Dohuk in the assessment and analysis of their current revenue streams and fees' collection practices using the Rapid Own Source Revenue Analysis (ROSRA) diagnostic tool, while enrolling over 200 technical staff in Excel, ArcGIS and Oracle training courses. Discussions on the shortcomings of the current legal framework and the limited incentives of utility directorates to raise revenues were held at both local and national level. Responding to emerging priorities, in early 2023, its team has led the piloting of a city-wide enumeration and geo-referencing efforts designed to improve the local authorities' efficiency in collecting fees from unregistered users and rental property. It has also trained and deployed data entry clerks to transfer water users' data from paper-based records to computer-based databases that will improve the efficiency of data management, the effectiveness of billing processes, and the monitoring of fee collection and compliance not only of water, but also of sewage, garbage collection and commercial taxes.

255 UN-Habitat, 2016b.

Private investors and lenders need legal frameworks that improve confidence and increase their willingness to invest. Financing local projects through central government mechanisms can often be complex, which may lead financiers to pursue opportunities elsewhere. In essence, better regulations, policies and governance structures that will protect investor interests are needed.

Arab countries should pursue support from development institutions and banks to revamp existing frameworks such that these issues are appropriately addressed. While not directly related to financing mechanisms, having adequate contractual frameworks, including transparency, enforcement and dispute resolution, are preconditions for any project that involves private or non-sovereign debt-based financing. Examples of such frameworks can be found within the region. For instance, the UAE has had significant success with attracting private investors and creditors to support infrastructure development in its cities through the provision of sufficient legal frameworks.

Raising Capacity for Profitable Projects

In most Arab countries, the problem with implementing projects is the profitability or the capacity of projects to generate enough cash flow to cover the design, construction and operation costs, while at the same time providing a market-rate financial return for investors. To overcome this, the following solutions offered by multilateral development institutions can be adapted to the different country specific conditions in the region.

The World Bank Group has been successful in alleviating financing concerns through concessional loans and grants. Concessional loans are debt financing granted at below-market levels or with more flexible conditions for repayment or maturity.

The International Development Agency (IDA), working closely alongside the International Bank for Reconstruction and Development (IBRD), lends concession capital with zero or very low interest rates and with a 25-40-year maturity horizon, and typically a 5-10-year grace period. In addition, IDA makes grant capital available to countries with high indebtedness levels and/or experiencing financial distress. These instruments could be of particular use to the Arab's Southern Tier countries, countries of conflict, and in some cases the Mashreq and Maghreb countries. This, however, should be done with a high degree of caution as well as the prerequisite studies to secure the pay back of loan instalments, interest and service fees and avoid default.

In Eastern Europe, the European Union has solved this problem by financing parts or the totality of the project's construction phase. Similar regional funds could be established under the auspices of the Islamic Development Bank, the African Development Bank, or the Asian Development Bank. A similar approach to the World Bank's investment guarantees could be adopted by central governments, who could guarantee municipal projects for certain kinds of revenue risk through either compensation to cover the difference or through extension of contracts.

Building up Local Fiscal Capacity through Frameworks of Creditworthiness, Evaluations and Targeted Investment

Experiences have shown that some Arab cities have faced challenges when it comes to financial management, much of which is due to a lack of fiscal capacity (see Box 30). To address this, local capacities need to be elevated through specialized training and development and the establishment of accountable fiscal departments with improved oversight at the municipal level.

Systems for collection of taxes and other revenue sources are also weak and need to be further strengthened. These steps would, in effect, increase municipal creditworthiness and allow cities to access more private capital with the capacity to repay through various instruments, including municipal bonds. Part of this process also includes digitisation of land records (or creating digital cadastral maps) and deploying land information management systems to improve revenue generation and fiscal management opportunities.

Box 30. Municipal Financial Analysis in Syria

The protracted crisis has left Syria at a critical junction to consolidate its authority, improve service delivery, and activate the post-conflict recovery. Reliance on the central government to finance recovery is unviable given the more than 70% public revenue shrinkage from its pre-crisis levels, causing a budget deficit of around $1.05 billion in 2022.

Local authorities in Syria represent a vital entry point to address some of these challenges through the optimization of their Own Source Revenue (OSR) stipulated in Laws 107/2011 and 37/2021 that grant local administration units (LAUs) the authority to leverage a series of important local revenue streams. Yet lack of capacity, controls, incentives, and legal bottlenecks constrain Syrian LAUs from reaching their maximum OSR potential limiting their OSR to around $2/capita per year, which is well below average when compared with other low-income countries. Consequently, Syrian LAUs are highly dependent on intergovernmental transfers that have largely ground to a halt as a result of the crisis. Ensuring the adequate performance of LAUs will require capacity building as well as the strengthening of overall incentives to use OSR effectively via national level policy levers. Strong engagement and advocacy are thus needed with national and local stakeholders in that regard.

Technical Support at the Municipal Level

A review of how different 1st and 2nd tier cities approach the design, structure and execution of projects makes evident the need for technical support from national and international development institutions. On the topic of private capital financing, in most Arab cities that were evaluated, governments have demonstrated little experience, either having never used PPP models or were in the process of deploying their first.

While for larger cities, where greater numbers of projects can be implemented, they will likely need to create specific positions for professionals with the relevant skills. For smaller cities that have a lower volume of such projects, the optimal solution may be to rely on a national government agency that supports medium and small towns.

Where legislation and regulatory frameworks defining and supporting PPPs are nascent, projects are typically operationalised and sustained at the national level, despite the scope of work being confined to municipal boundaries. Such contexts are commonplace in Arab countries. Policies and legislation regarding PPPs will need to continue to be developed in order to successfully decentralise the model and allow for the uptake and autonomy of PPPs at a sub-national level. In other words, once cities have sufficient fiscal and legal capacity, they should be enabled to pursue PPPs directly without the involvement of the central government.

Frameworks for International Cooperation: Promote Knowledge and Skills Transfer

Not enough emphasis can be put on the value of connecting with the outside world and learning from the successes and failures of city leaders in other countries within and outside the Arab region. As part of local capacity development, Arab nations should also prioritise exposing local leaders to their peers through active participation in international fora and city networks.

Professional development funds could be established for training and capacity building, including for city government staff and elected officials to attend international engagements and training exercises that are offered by organisations like the World Bank, UN-Habitat and other UN agencies and various city networks. While cities undertake the journey to financial independence, funds can also be earmarked to allow cities to directly commission capacity building exercises and technical support from relevant technical organisations for training activities such as budgeting, GIS or master plan development.

Financing Infrastructure: A Way to Achieve the SDGs

This chapter discussed how to comprehensively tackle the financing infrastructure and complex urban development problems by first establishing local priorities and goals that are aligned with the SDGs and NUA. Then, city governments must translate those into quantitative measures, identifying gaps and estimated costs of achieving the goals. Finally, they must create an enabling environment for investment, including determining which instruments are best fit for purpose.

Conclusions and Takeaways

- Tracking SDG Progress as an Indicator for Urban Development: SDGs assessment can act as a monitoring tool for urban development. The importance of data being available at all levels of government, including urban, and for all groups of people (ie. by age, gender, migration status, etc.) is now widely accepted. So far, the success of Arab countries and cities in achieving their NUA/SDG targets has been limited, with rare exceptions on specific targets such as poverty reduction. Despite the lack of progress, the continued monitoring of efforts for a more comprehensive development strategy represents a benefit in and of itself and will aid cities in the region in creating data-aligned urban strategies.
- Empirically Based Decision Making: Using methods and tools that help the decision makers to decide about the projects priorities is essential as a first step to determine the needed costs and the sources of funding. In order to do so, a realistic stock taking of existing assets must be undertaken – a task which has historically been limited by poor record-keeping and political will.

- **Self-Sustained and Creative Financing:** Lastly, local governments must determine ways to finance their chosen projects and act upon them. Historically, it has not been possible to rely fully on the objective and appropriate distribution of funding from the national to the city level. Therefore, it is crucial for Arab cities to explore own-source revenue alternatives and become less-reliant on state funds. This involves:

    1. Determining which aspects of various project pipelines would need public funds to support their implementation.

    2. Identifying areas where implementation, operation, and management (or any combination) could be outsourced partially or fully to the private sector.

    3. Exploring opportunities for other atypical financing mechanisms, such as Islamic finance, corporate social responsibility, land value capture etc. to contribute to the overall resource needs.

It is important to note that significant policy challenges and questions of equity are raised in the outsourcing of public infrastructure. It is crucial that a framework is considered to ensure that the distribution of necessities is done based on the needs of the citizens and not driven by corporate interests.

SYRIA
Syria. © UN-Habitat

06

Strengthening the Financial Frameworks for Implementing the SDGs and NUA in the Arab Region

Introduction: Local Financing in Arab Cities

Access to the capital required to propel the development of Arab cities forward continues to be a challenge. National financial frameworks that create an enabling environment for municipal governments through strong multilateral governance are key to enabling cities to unlock this capital. This chapter supports the idea that effective decentralisation and creative financing solutions can unlock the necessary capital to create an enabling environment to deliver on the national commitments towards the SDGs and the NUA. Working from a baseline of improved fiscal autonomy for local governments, the chapter explores financing frameworks and mechanisms for achieving the goals set out in the previous chapters.

Many countries in the Arab region have historically focused on extractive and primary sector activities for a vast share of their Gross Domestic Product (GDP). As a result, the focus of public policy has not been on urbanisation, which is a function of the pursuit of structural transformation towards manufacturing and service sectors. Agriculture has been a declining sector in all Arab economies, and the urban-based industrial and service sectors now account for a higher proportion of GDP. Services are still the largest contributor to the economy in the Maghreb (50 per cent) and the Mashreq (60 per cent) regions, while the bulk of urban employment in the GCC countries is in the service sector.[256] This slow shift is a clear indication of the fact that countries in the region need to pay more attention to leveraging urbanisation and the opportunities it offers.

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Gaza.© Media Clinic

256 World Bank, 2015b.

Cities allow a skilled workforce to live and work in close proximity and bring together ideas to innovate. They foster competition, leading to the pursuit of excellence and increased productivity, with the by-product being economic growth and employment. These self-sustaining urban micro-economies, though they exist, are not performing optimally in the Arab world. As discussed in Chapter 3, sustainable investment in physical infrastructure as well as human development – through the creation of schools and institutions of higher learning, healthcare facilities and public congregation spaces that are inclusive and accessible to all – is necessary to improve the overall quality of life in Arab cities.

Multilateral Governance as a Key Component of Urban Finance

A sustainable financing framework in support of urbanisation would require jump-starting economic diversification through strategic and simultaneous investments in human capital and infrastructure. These frameworks also need to acknowledge the diverse competitive advantages that different cities within a country offer and foster such specialisations. For example, coastal cities have the advantage to develop into trading hubs and create enterprises that add value to the shipping value chain, whereas cities near natural resource deposits offer opportunities to develop enterprises associated with the extractive domain of economic productivity. Dubai and Abu Dhabi's strategic investments into developing their airports as world-class transit hubs in order to capitalise on their central location for all Eurasian travel provides an example of cities playing to their competitive advantages.

However, in order to harness the diversity of opportunities that cities in different locations offer, municipal governments need to receive the right to self-govern. They must be seen as a part of a larger system of cities within the same country and region, in which all citizens receive an equitable share of the services, access to adequate economic opportunities, and the freedom to choose where to live in order to maximise their individual potential.

While Arab countries tend to reflect limited devolution of fiscal and administrative powers, governments in recent years have recognized the value proposition of coordination with local authorities on several occasions. Saudi Arabia, for example, has devolved responsibilities of public health, management of public spaces and issuing of building permits to local governments which includes the collection of any service fees.[257] In 2022, Palestine decided to pilot the decentralization of property taxation in four main cities and communities in the West Bank.

Besides property taxes, many cities across the globe are leveraging their local assets to generate revenue and finance their investment needs. For instance, in Cairo, the auction of 3,100 hectares of desert land for a new town raised US$3.12 billion in 2007—an amount 117 times greater than Egypt's total urban property tax collections and about one-tenth the size of national government revenue—to finance internal infrastructure and build a connecting highway to Cairo's ring road.[258]

257 UN-Habitat, 2016b.
258 World Cities Report, 2022b.

The region has seen several countries taking initiatives to decentralise and devolve more power to the local levels with varying levels of success. Iraq, for example, has adopted a federal system of governance since 2003 where the provinces and local authorities are given greater autonomy on development decisions and fiscal choices,[259] although decentralisation efforts have been limited to only a few sectors for lack of political will and implementation capacity. Morocco, Tunisia and Jordan made progress in political decentralisation by holding elections at the local level. In 2015, Moroccan citizens directly elected, for the first time, their local and regional representatives and in 2018, Tunisia held its first local elections since the protests. In 2016, participatory budgeting workshops were organised on the local level in several neighbourhoods in Tunis city. In 2017, municipal and local councils were elected in Jordan, along with governorate council elections established by the new decentralisation law in 2014 (the first of their kind).

In Saudi Arabia, in 2005 and 2011 the government embarked on a decentralisation initiative in which municipal council structures were established. From a total of 1,212 members partaking in municipal elections, nearly half (506) of the councils were elected.[260] Another round followed in 2015, in which Saudi women could vote and run for elective posts, winning 20 out of approximately 2,000 local positions. According to UN-Habitat, "although the role of local administrations has somehow expanded recently (especially in preparing subdivision plans, zoning regulations, and the issuance of building permits), the national government continues to retain significant control over local administrations, notably in the area of municipal finance".[261]

In the context of countries in conflict such as Syria, Libya, Yemen and Iraq, alternative de facto governance modalities emerged to fill the gap caused by the State.[262] For the most part, they largely share control with the government, while in some areas, non-state actors have complete control over the daily life of citizens in the controlled areas. This includes, for example, ISIL issuing building permits and collecting fees in Mosul, Iraq.

Yet challenges with the coupling of administrative devolution and mobilisation of resources to meet the needs of municipalities still persist. Most cities that are now legally recognized administrative entities are still dependent on fiscal transfers from higher order governments to be able to balance their annual budgets. Revenue generation continues to be low due to inefficient fiscal operations, lack of clear divisions of power, insufficient enforcement powers within municipal jurisdiction, outdated legal frameworks and the general low financial management capacity of local governments.

Most countries engage with the private sector at the national level. Therefore, the nature of Public Private Partnerships that are visible in the Arab world is that of large-scale megaprojects that have received billions of dollars in sovereign funding. The potential of engaging with the private sector at the local level largely remains unknown and unexplored. In most instances, the Ministries of Finance at the national level have created PPP cells that are the focal points for partnerships. Some examples include Saudi Arabia, Egypt, and Qatar. In Tunisia, the Prime Minister's office is the ultimate authority for all PPP related decisions while the Ministry of Finance tackles all procurement-related issues. Yemen's PPP unit is based inside the Ministry of Planning.

259 Republic of Iraq, 2014.
260 UN-Habitat, 2018b.
261 UN-Habitat, 2018b.
262 UN-Habitat, 2016-2017.

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Marj Ibn Amir.
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Corruption at the municipal level is also a concern in some countries in the Arab region. This usually comes in the form of public assets being sold to private enterprises at lower than market prices.[263] This is a symptom of insufficient accounting of public assets and untimely valuations. Such inadequacies are implicit in low financial management capacities at the local level as well as lower levels of transparency and accountability.

Beyond intrinsic issues, Arab governments also show low participation and representation within international networks that are designed to transfer governance knowledge and skills. While other developing countries are actively engaging on the global front with their counterparts, representatives from Arab cities and sub-national governments remain absent. For example, UCLG reports that the Arab region is the least represented region in their large network of local governments and cities. Other networks of city leaders, such as the covenant of mayors, also only has a handful of Moroccan, Palestinian and Lebanese cities as formal members and participants.

Decentralisation Challenges

Decentralisation can play a key role in improving multilateral governance in Arab cities. In its most basic sense, decentralisation can largely be organized into two categories: decentralisation of responsibilities and fiscal decentralisation. The first has to do with the decentralisation of decision-making responsibilities, which refers to the administrative and political powers granted to lower tiers of government to take and administer decisions.

263 Transparency International, 2018.

While the second, has to do with granting fiscal authority to lower tiers of government to generate their own sources of revenue and to access credit. These forms of decentralisation are not always straight forward and can come with their own challenges.

Separating the Politics from Development

As countries decentralise, value differences between leaders at varying levels of government and/or government agencies are bound to arise. It is, therefore, crucial to acknowledge that the needs of the people supersede the self-interests of their leaders. Separating politics from administration is a key ingredient in the pursuit of sustainable development that leaves no one behind. Emerging economies that are on track to achieve their commitments on global agendas such as the SDGs, Paris Agreement on Climate Change, the New Urban Agenda and others, are doing so because they have governance frameworks that create this separation and disallow political interests from influencing development policy.

Most countries in the Arab region are based on governance structures that retain power at the national level. If decentralisation reforms are to be pursued, countries should be mindful of instilling this separation of values in the next generation of governance frameworks. Learning from outside experiences and best practices offers opportunities for Arab governments to create new administrative systems that promote virtuous cycles of infrastructure financing, economic growth and revenues that are self-sustaining and contribute to shared prosperity among their citizens.

Creditworthiness

Cities in the Arab region tend to have limited revenue generating tools at their disposal, making it difficult to have autonomy when prioritizing investment projects. As previously mentioned, one key challenge faced by Arab cities when seeking funding from monetary institutions is a lack of creditworthiness. The World Bank is attempting to aid in this through its City Creditworthiness Initiative. Through the initiative, representatives of municipal governments are able to self-assess their city's creditworthiness, as well as share resources and attend workshops around stronger fiscal planning and governance. Specific data on creditworthiness in the Arab region is scarce, however, global trends indicate that of the 500 largest cities in developing countries, less than 4 per cent are creditworthy on international markets and less than 20 per cent on their own local markets.[264]

Methods and Frameworks for Bridging the Financial Gap in Infrastructure Funding

The *Addis Ababa Conference on Financing for Development* set forward a package of tools to implement the 2030 Agenda. It contributed to the establishment of a new framework for sustainable development, focusing on governance, responsibilities for all, importance of domestic action, good policies, and the role of the private sector. While each country faces its own context-driven challenges with regard to decentralisation and devolution of fiscal responsibilities, addressing top-down and bottom-up barriers for mobilising finance by municipal governments can catalyse investments to entice climate and development action for cities and citizens in the Arab region. This section discusses the range of options available for financing local development in the Arab region.

264 World Bank, 2022b

Improvement of Traditional Methods

Public Revenue

In the Arab region, municipalities and local governments tend to rely on traditional sources of revenue to finance infrastructure. The traditional sources of funding for cities are taxes, user fees and central government transfers. A combination of several types of taxes is simultaneously needed to achieve an efficient taxation system. Due to four distinct characteristics, property taxes appear to be the most stable base for local revenue generation. Firstly, property taxes are a rather visible tax when compared to other taxes such as revenue taxes. Secondly, they do not automatically increase with the value of the property. This inelasticity creates greater accountability among taxpayers. Thirdly, it is historically associated with the local economy and is rarely set by the central authority, which ensures greater local independence. Finally, it is also considered a 'fair' tax, in that it favours families over commercial and industrial properties.

Personal income taxes are not used to the same extent as property taxes in Arab municipalities. Despite this, they still constitute a valuable source of revenue in some countries. This revenue is, however, currently channelled through the central governments. The reason for the low use of this tax type is the difficulties and the costs associated with its implementation. However, with a greater decentralisation in the developing world, and the need for municipalities to address social needs, like crime, poverty and education at the local level, this source of revenue might make sense as local capacities in financial management increase. Social needs financed by income taxes are a system of funding by those who can pay.

Consumption taxes are another viable source of revenue for local governments. This includes value-added taxes and retail sale taxes. They provide a source of revenue that grows with the economy of the city and gives local governments more freedom in determining their tax structure. Many public services and utilities charge user fees for their use, which generally takes the form of service fees and specific benefit charges. The main critique of this revenue source is the pricing system; some public services are difficult to price.

Benefit taxes are different from service fees as they do not arise from the provision or sale of a particular good or service to an identifiable private individual. Instead, those taxes are compulsory contributions to local revenues. These taxes are still related in some way to the benefits received by the taxpayer. In contrast to general-benefit taxes, such as fuel taxes levied on all road users or local taxes in general viewed as a price paid for local collective goods, benefit taxes relate to the specific benefits received by each particular taxpayer. Examples include front footage levies or special assessments on property tax to pay for sidewalks or street lighting.

User fees and taxes, both benefit and consumption, see very low rates of collection in Arab countries. A study conducted by the EU and UN-Habitat found that in the case of post conflict countries, the challenge of low revenue collection rates is further exacerbated by low collection of taxes as well as issues such as loss of property and land title records during periods of conflict.[265]

265 UN-Habitat, 2018c.

Transfers from senior levels of governments are the third principal traditional source of local revenue. Transfers can be divided into two broad categories: conditional transfers and unconditional transfers. Conditional transfers must be spent on specific areas or projects, like roads or education. Unconditional transfers, on the other hand, come with no string attached and can be devoted to any public good or service, or can even be used to reduce local taxes. In that context, such transfers can be justified in four ways:

- *Vertical fiscal imbalance:* This happens when the municipalities do not have enough resources (taxes or user fees) to meet their expenditures. This gap can be closed by an unconditional transfer from the central government.
- *Horizontal fiscal imbalance:* This fiscal gap happens when resources differ at different local levels. Some municipalities are unable to provide services at an acceptable tax rate when the tax base is too small, the cost of providing some services is too high or when the need for one particular service is greater compared to other municipalities. The horizontal tax gap refers to the differences in need and resources across various cities. This issue can be addressed through Horizontal Fiscal Equalisation measures that are transparent and make municipalities accountable.
- *Externalities:* Providing some services can have positive externalities outside of the boundaries of one municipality and can thus be justified.
- *Political rationale:* Grants from senior levels of governments can be an incentive to provide a minimum acceptable level of services.

Improving Public Revenue Generation and Collection: How do Local Governments Maximise Revenues?

The discussion on improving public revenue rests upon the assumption that power to generate revenue such as property taxes, other local taxes and service fees has been devolved to the city government. Clear legislative reforms would need to be put in place that define the division of fiscal (taxing) powers between local, provincial, and national governments. Typically, local governments generate revenue through the levy of property taxes and other taxes such as local sales tax. In some instances where cities have high financial management capacity as well as the legal right, they can also levy personal income tax. Other sources of revenue for cities include service fees that are generated through monthly bills for provision of water, electricity, sanitation and solid waste management services, provision of other legal services and permits such as registration of marriages, deaths, pets, and penalties for various civil violations.

In some Arab countries, decentralisation has meant that cities have greater responsibilities for delivering services to urban residents such as water, sanitation and transportation, the fiscal devolution of taxation authority, and in some cases the ability to levy service fees such as water and electricity bills. This has created a strong dependence on transfers from other levels of government for resources needed. The legal framework for local revenue generation should be accompanied by increased responsibilities. For instance, in Saudi Arabia, which is the largest GCC country and contains 17 cities that have a population greater than 1 million and many more medium sized cities, such a transformation and reform is quite necessary in establishing and pursuing local development agendas as the country transfers more responsibilities to its cities.

Box 31. Jordan's Case on Traffic Tickets

The World Bank has been working with the Government of Jordan to identify opportunities in the current framework of governance to improve revenue collection in Amman. In their study, the World Bank found that there are too many actors in the administration of traffic fines. While the Greater Amman Municipality provides traffic enforcement service and owns the infrastructure such as traffic cameras and speed detectors that is used to catch violators, the traffic police officers work for the national government. It is also unclear who is authorised to cancel fines - whether the courts are the decision makers or an employee in the traffic violations management system. The courts are yet another actor that adds further complexity to the current system.

In cases where countries have devolved the authority to collect local taxes, there are still very low rates of collection in the region. This issue can be attributed to two main bottlenecks: (i) insufficient infrastructure to support billing; and (ii) issues with enforcement and collection of dues from debtors.

As with the case of public asset accounting, to address the first bottleneck, sufficient initial investments would need to be made into infrastructure such as the development of property ownership records or the digitalisation of paper-based records, service usage meters and customer billing mechanisms. In the case of property tax, systems of regular assessments of property value would also need to be established to utilise transactional data to estimate market value of private real estate assets. This first bottleneck is a relatively easier fix and can be overcome with technical support from external actors or private vendors. The second bottleneck can be somewhat more challenging, as it would require a review and reform of the judicial framework to empower cities to levy punitive action on delinquent debtors through swift legal action.

Creating a better environment for cities to deal with delinquencies of debtors can take a long time. While the framework is being revisited, cities can pursue relatively easy solutions that can help capture part of the revenues. An illustrative example is the case of the World Bank's work with the Greater Amman Municipality on implementing e-governance solutions to increase property tax collection. The municipality has implemented a system of text messages-based reminders to its citizens to pay their yearly property taxes online, which has allowed it to capture part of the revenues from those individuals that are willing to pay but do not know when or how. This required an initial investment in building a property records database that included property owner's contact information.

This goes to show that local governments need to consider innovative solutions that may be relevant to their individual contexts and not blindly pursue elaborate solutions that may or may not be working elsewhere. This would increase the probability of success and thus the sustainability of future projects.

Capital Investments

Local governments and municipalities in the Arab region face the greatest challenges when it comes to financing capital investments. Financing infrastructure and rehabilitating ageing infrastructure are major challenges for Arab cities. Capital expenditures differ from operational expenses in the way that they are designed to play a crucial role in improving the quality of life of the residents and the city's competitiveness and attractiveness. This, however, is only done when the regulations and incentives are based on strong principles of environmental and social sustainability, as well as sufficient participation of segments of society that are directly and indirectly affected by the investment. The choice of instruments to finance infrastructure is important as it has an impact on both the level of services provided and the range and size of the infrastructure.

Two main aspects make capital investments different from operating expenditures. First, capital expenditures are costly and irregular. Second, the financing of capital expenditures differs from expenditures related to the operations of the municipality. When it comes to capital investments, it is important to also think about the pricing for the services provided. If the per unit fee or tax for the use of the services provided by the municipality is less than its real cost, as is often the case for public service provision in developing countries and in the Arab region, over-consumption in this facility is a risk. It is also important to note that this does not just refer to the true market cost, but also in terms of internalizing externalities such as the wider social and environmental costs such as the impacts of congestion and pollution.

Pricing can also be a useful tool for disincentivizing behaviour that is not socially or environmentally optimal such as the over-consumption of scarce resources. Therefore, determining the proper post-construction user fees is necessary to help municipalities efficiently manage the demand for a service or facility and maintain their repayment capacity. Important attention should also be paid to the risk of pricing out different user groups such as low-income households. Care must therefore be taken when using pricing of services as an instrument to accelerate the green transition, and as an instrument to protect access to essential services for all residents, and particularly the most disadvantaged, in line with Agenda 2030 objectives of 'leaving no one behind'.

Public Asset Stocktaking: Where do we Currently Stand?

The Public Wealth of Cities is a problem that is also worth addressing. Parks, playgrounds, sports facilities, vacant land parcels in close proximity to developed commercial hubs, traffic signals, street signs, roads, bridges and highways and public housing are all examples of assets that are typically owned by the municipality.[266] Unfortunately, many cities around the world do not have proper balance sheets, making it difficult to determine both their assets and liabilities. The lack of proper records and land titles for both municipal and private assets is also a challenge in Arab cities.

In a recent study, the International Monetary Fund (IMF) found that for a sample of 38 countries "the total public sector assets were worth $103 trillion or 216 per cent of GDP".[267] Like most cities, it is likely that Arab cities are sitting on gold mines that they are not effectively utilising.

266 Dette, 2017.
267 IMF, 2018.

To take advantage of these assets, two issues need to be addressed: (i) municipalities need to be supported in taking stock of the assets they own, and (ii) ownership (the right to sell or lease) of assets within municipal boundaries needs to be transferred to the municipality. The former is a capacity issue that would require mobilisation of resources as well as technical expertise to create a comprehensive municipal balance sheet that accounts for municipal assets and liabilities. It would also support establishing the fair value of all municipal assets adjusted for any necessary depreciations and discounts. Once created, the municipal budget, finance and accounting office should be made responsible for maintaining this balance sheet over time.

The latter is a legal issue that would have to be addressed through legislative reform as part of decentralisation efforts and transfer of authority. If municipalities are not legally recognised entities, then the ownership and management accountability of these assets cannot be passed on to them. In countries that choose to decentralise fiscal authority to the governorate level, rather than municipal, the budget and accounting department of the governorate should maintain the balance sheet for public assets. Table 6 provides an overview of balance sheet asset categories for a municipality.

Table 6. Comprehensive Balance Sheet of a City Government

ASSETS	LIABILITIES
Financial assets	Financial Liabilities
Real commercial assets	PDV of spending on real goods and services
Present Discounted Value (PDV) of local taxes	PDV of transfer payments (including pensions, health, and other social benefits)
PDV of transfer payments from federal/ central and state/provincial government	

Source: CITI GPS, 2018. **Note:** This table covers the items that constitute the assets and liabilities of a city government. Taking stock of current financial and real commercial assets of the city can help identify ways for municipalities to leverage untapped, municipally owned assets to finance local development projects. This stocktaking should be done by local fiscal authorities on a yearly basis to derive the 'Comprehensive Net Worth of the City'.

Stories of transfer of property rights or development rights to shrewd privateers or friends of the regime at substantially discounted rates than the fair market value of the public asset is not uncommon in the Arab region. Creating and maintaining an asset balance sheet would also help bring transparency and bolster accountability to local government. If there is insufficient accounting capacity at the local level, special purpose vehicles or holding companies that are specifically created to manage public assets are a good solution. In the Greater Amman Metropolitan area, the World Bank has been providing technical assistance in the creation of such a holding company and developing an asset stock. Similar examples also exist in GCC countries that have created various sovereign asset management funds and investment funds to manage and monetize their oil reserves and revenues. Creating a separate corporation or a non-profit entity that is not a part of the government can also help fast-track better use of public assets through streamlined decision making and quicker response times.

Implement Transparent Fiscal Transfers Based on Needs, Priorities, Functions and Performance-based Incentives

Transfers are designed to function as a redistributive mechanism that helps governments support development projects and programs in regions that do not themselves have adequate revenue generation capacity. For example, if City A specialises in tertiary sector activities such as financial services, and City B is a manufacturing hub, City A will generate higher income for its residents as compared to City B. By taxing income through national taxes, governments can redistribute wealth among City A and B such that residents of both cities receive sufficient and equitable services. In this system, predetermined redistribution formulas are utilised to calculate how funds are disbursed among beneficiary sub-national governments. In the Arab region, this is not often the case.

Transfers are given based on policies of the central government or in support of programs and projects that are of strategic interest to the central government leaders. But most commonly, transfers are used as a budget-balancing grant mechanism to cover any deficits in local operating costs and the amount of revenue generated by a city. Either way, this system of arbitrary handouts or the expectation of local budget-balancing by central governments, disincentivizes local governments from improving fiscal performance and investing in long-term productivity increases. Additionally, many cities in Arab countries have centrally appointed leaders that shape the volume and nature of intergovernmental transfers based on their interpersonal dynamics. These dynamics are susceptible to change once the appointed leader leaves office, thus making cities more financially vulnerable to changes in annual transfers received.

Some countries have called for change and have implemented frameworks that transition subsidy schemes from a budget-balancing mechanism to a defined, formula-based determination. Morocco's case is an excellent example of this transition. By implementing a transparent formula that took into account local debt from borrowing into consideration when determining transfer value, the government incentivised local governments to not overborrow. A transparent formula also sent a message to creditors and debtors alike that there would be no budget deficit balancing or bailouts.

This framework of utilisation of transparent formulas for transfers is driven by the Musgravian principles of efficiency, equity, and stability. [268] Central governments require sufficient flexibility in allocating funds from the ***distributive pool*** of resources, while local governments seek stability in terms of an earmarked and predictable amount of annual transfers receivable from higher levels of government. This stability is necessary for local governments to be able to create effective annual expenditure budgets. Therefore, it is advised to create a two-tiered system of intergovernmental transfers with a primary grant to local governments that is predictable and fixed, and a secondary grant that is determined by a formula system discussed earlier.

Implementation of such formula-based transfers is also dependent on the fiscal capacities of the central governments of Arab countries. Urban development researchers and advocates of this system have long felt that this capacity limitation has been a major bottleneck in the implementation of such a system, despite countries being well aware of the concept.

268 Musgrave, 1983.

In addition to building this fiscal capacity at the central level, international organisations and development banks need to continue efforts to illustrate the benefits of the formula-based transfer system to Arab countries and showcase examples, such as those emerging from Palestine and Morocco, as evidence that this system does not affect national security in order to catalyse its implementation.

Private Sector-Based Methods

The participation of the private sector in civil infrastructure allows the public sector to benefit from extra capital, enjoy the knowledge and abilities of private entities and to transfer some of the risk to a stakeholder that is more able to bear them. Although those mechanisms are common in advanced countries, countries throughout the developing world are still experimenting with such approaches. Public Private Partnerships (or PPPs) can take several forms depending on the type of project, its potential revenues and the structure of the public entity involved in this project. Due in part to the diversity of structures of PPPs and their constant evolution, there is not one exhaustive definition of this concept.

The two Public Private Partnership repayment models that are most relevant for the Arab region are as follows:

- *User payments:* This payment system is used under concessionary models wherein the private sector in lieu of a public entity, although under its control, provides a service. The concessionaire charges the users for this facility and this charge serves to reimburse the cost of building and managing the infrastructure for a predetermined duration. Any revenues and costs can revert back to the public sector at the end of the concession period.
- *Availability based payments:* In this system, the private concessionaires are not paid by a charge, but receive payments regularly from the public sector depending on the level of service provided. The fees can be variable or fixed.

The first model appears to be the most common payment mechanism in developing countries, as seen in Brazil, China, South Africa, Malaysia among others. In some instances, a combination of the two models is also used. It is worth noting that the decision on the revenue stream mechanism has a huge influence on the structure of the financing of the project and its sustainability.

Legal frameworks are also an important factor in the PPP structure. A PPP project must be created in a stable legal environment, and contractual solutions need to be set up in a case of litigation. This is perhaps the greatest challenge that faces most Arab countries and may be hard to overcome. In terms of contract design, the ***design-bid-build*** model is the most widely used approach to PPPs. Design and construction responsibilities are separated between a private engineering firm and a private contractor. The remuneration of the contractor is based on unit prices contractually defined and quantities measured after the construction. In more recent times the design and build model has seen much greater success where one vendor provides both services. A third model of PPP contracting is an agreement between public and private entities. This kind of contract can also refer to operational management which can be activities such as traffic management or toll collection. Given that municipal agencies in Arab countries often struggle with underproductive staff and over staffing, this could be feasible for some cities to streamline their operations.

In some cases, government support mechanisms may need to be built to better facilitate PPPs such that the public entity involved bears the risks that it can manage better than its private sector partner. It is especially useful in the cases of projects that are economically viable but not profitable such as water, sanitation, and solid waste management. These government support mechanisms include guarantees of grantor payment obligations or the repayment of debts. Local development banks could establish such guarantee programs that are capitalized by the central government in order to unlock greater sums of private capital in public infrastructure. An example of such a setup is the guaranteed compensation to the concessionaire when revenues of a PPP developed facility fall below a certain level.

Strong Frameworks for PPP

The Addis Ababa framework for financing the SDGs urged countries to pursue unlocking the wealth of capital that is currently managed by the private sector. Years after the signing of the SDGs, this private capital remains locked and unavailable to most developing countries, including in Arab nations.

Those that have been able to attract private capital, such as the UAE, which passed the cabinet resolution (1/1) in 2017, have done so by establishing formal frameworks for fiscal engagement between the private sector and the central government. Dubai's Law #22, passed in 2015, established its own framework for PPPs.[269]

Although, the UAE is an excellent example to emulate for other Arab countries, the UAE has a distinct advantage of not having an elaborate system of cities and provinces. Rather, it is a federal system of city-states. Nonetheless, it is an illustration of how cities, if empowered with the right to self-govern, can experience an unrivalled pace of development and growth. Other countries would need to create a framework that defines the scope of direct engagement between municipal governments and the private sector in order to achieve the scale at which resources need to be mobilised simultaneously in multiple cities. In some cases, a single government body, such as a central government's Ministry of Finance (the typical public partner), does not have the capacity to co-create and manage all local level PPP activities. Supporting local governments' fiscal and legal capacities would have to be developed simultaneously. Box 32 outlines the key elements of a PPP framework.

269 UAE, 2022.

Box 32. Key elements of a PPP framework

1. Local governments should be given the ability to enter into contracts with the private sector. This involves reforms to the current governance structure so that the ability to advertise, negotiate and evaluate contracts is part of the list of powers local governments have. Local governments should also have more powers as part of broader decentralisation efforts.
2. There is a need to build capacity at the local level to design projects and project pipelines, with clearly defined stages and associated activities. Capacity would also need to be built on a city's ability to do market analyses that would help develop a better understanding of both risks to the city and to the counterpart. An example of this was detailed in chapter 4 where certain PPP projects had to be subsidised with public resources in order to make them profitable enough to be of interest to the private sector.
3. A well-defined set of laws around how situations of conflict would be managed are necessary to lower the risk for the private contractor and incentivise them to engage in public projects. Without such a conflict resolution framework, the private sector would not consider engagements that have a risk of project delays that tie up their capital for prolonged periods.
4. Define responsibilities of both parties in every stage of the project so that the entire process is transparent. This includes monitoring activities and a reporting schedule of key performance indicators and outcome measures.
5. Create requirements for the city to adhere to in their pursuit of a PPP. This includes clear publishing of the project pipeline at a centralised location that is visible to all interested private parties. Fair and transparent bid-based selection systems that use a reasonable method to identify and select the most suitable candidate are also needed.
6. Have a feedback loop to allow the evolution of the framework from experiences generated through both successful and unsuccessful PPPs.

Beyond the key characteristics of a nationally established PPP framework that enables cities to mobilise private capital and expertise towards achieving its local goals, central governments can also provide a series of typical PPP contract templates that low-capacity cities can utilise. For example, a PPP setup template for the provision of electricity to households can be created as a 'rubber stamp' model of local government engagement that sets regulations for the standard of services to be provided; whether this be a ***build-operate-own*** model, a ***design-build-operate*** model or possibly another form of setup that the national government thinks is best for its cities, and defines the floor and ceiling prices at which electricity would be sold to its urban residents so that it is both affordable and profitable.

Balancing Protection and Innovation

In Arab countries that do not have a large pool of skilled private enterprises with adequate experience and expertise in public sector undertakings, creating a PPP framework would likely be insufficient. If the country's markets are closed to outside firms, and there are only a handful of domestic firms, the scale of competition that would be needed to achieve optimal cost of project implementation would not be seen. In such settings, countries risk creating a monopolistic or oligopolistic environment that would provide greater leverage for private entities to dictate prices.

Nonetheless, environments that support local employment and skills development are also a priority for the Arab region. To avoid the outflow of capital due to cradle-to-grave services provision by foreign enterprises, regulations that require inclusion of local subcontracting firms should also be included in the PPP framework. This would generate positive spillover effects for locals through technical knowledge transfer and capacity development. Many countries in East Asia and the Pacific region have seen success with such a framework, while experiencing large inflows of infrastructure investments into their countries. This type of setup also allows the building of accountability in projects to be geared towards national interests by design through the inclusion of national firms and allows the project to better reflect local sensitivities.

There is a need to strike a balance between regulation and the ease of doing business. Preventing innovation from entering the market not only reduces opportunities of employment for locals, but also stunts growth in their technical skills and innovative capabilities.

Despite this, examples of how regulatory easements can create local innovation are found in countries like the UAE, where innovative companies like Careem established their operations. This later opened the door to complimentary services like RoundMenu and Cycle that were eventually acquired by Careem to become their food order and bike-sharing entities. Due in part to their ability to internalize Careem's experience and technical know-how, they were able to further expand their services.

As cities in the Arab region pursue smart infrastructure in their efforts to position themselves for the future, current market regulatory frameworks will need to be revisited and adapted to allow for the sufficient inflow of technology and innovation, while at the same time managing risks.

Connecting Arab Cities in the Outside World

A benefit of decentralisation and the creation of local governments is that cities can access international networks, resources, and institutions more directly. Bilateral engagements between municipalities and international organisations - like Cities Alliance, UCLG, ICLEI, the World Bank, UN agencies and the Arab League - can expedite the implementation of the technical solutions to key issue areas discussed in the previous sections.

Some organisations specialize in providing financial products and services, like Cities Alliance (CA) and the World Bank Group (WBG). WBG prioritizes poverty reduction across multiple sectors as well as urban development (ie. public health), while CA is more focused on urban-specific needs.

IRAQ
Informal settlement
Mosul. © UN-Habitat

Both WBG and the CA also provide substantial knowledge-sharing and capacity-building services in addition to financial resources. For example, the WBG provides mechanisms to host and share open data by country and development indicators, which can be expanded to also cover city-level data. The WBG already has a large portfolio in the Arab region, working with at least six Arab countries with a varying range of financial support ranging from USD$ 350 million to USD$ 6 billion.[270]

Organisations such as the United Cities and Local Governments (UCLG) represent the voices of local and regional governments so that local needs are considered during national and global policy and agenda setting. They advocate for sustainable, local solutions, monitor progress and translate SDGs at the local level. For example, their Global Observatory on Local Democracy and Decentralisation (GOLD) developed a framework for tracking and reporting on advancements in the execution of the global sustainability agendas.[271]

ICLEI, on the other hand, specializes in whole systems reform, including subnational reform. More than 1,750 local and regional governments from around the world are part of this network, which is dedicated to sustainable urban development and stimulating regional and local initiatives for low-emission, environmentally sound, just, resilient, and circular development. ICLEI promotes change at the subnational level along five interconnected pathways that cross jurisdictional and sectoral lines. Three Arab municipalities and the Organisation of Islamic Capitals and Cities are ICLEI members.

Examples of Arab countries benefiting from these international connections include Tunisia, which is part of the GIZ and UNDP project '*Urban Sustainable Development Strategy*'. This project provides support to develop a five-year regional development plan at the governorate level.

270 Cities Alliance, 2021.
271 UCLG, 2022.

The objective being to define the priorities and medium-term development orientations for each governorate, which should serve as a basis for the new five-year development plans for 2016-2020.[272] Similarly, the '*Madinatouna*' project in Tunisia aims at supporting nine Tunisian municipalities in the country's decentralisation process through elaborating participatory local development plans.

City Development Strategies (CDSs) have been implemented in several cities in Lebanon, Morocco, Tunisia. CDSs are seen as a powerful tool to promote growth, stability, and development by establishing a vision for medium and long-term development. They also consolidate democratic transition processes by empowering local governments and fostering citizen participation.

Despite the availability and diversity of these international networks, the Arab region is the least represented region across the organisations mentioned above. There are opportunities for local leaders to learn from global peers, to mobilise change in their communities and mainstream Arab cities as centres of excellence and prosperity and hubs of doing business in the region. National governments should see value in fostering this international exposure for their local leaders and encourage such activities by subsidising local participation through creation of resource pools. This governmental knowledge transfer is a key ingredient towards building local government capacities to self-govern, make better fiscal choices, and achieve the SDGs and the NUA in their jurisdictions.

Box 33. UN-Habitat Cities Investment Facility

In 2018, UN-Habitat launched its 'Cities Investment Facility', aiming to provide financial solutions for sustainable infrastructure projects in rapidly urbanising areas. The initiative consists of three separate components: the Cities Investment Portal, Cities Investment Advisory Platform, and the Cities Investment Vehicles. Planned projects by municipal governments in need of funding are displayed on the Portal, giving them visibility and drawing multi-stakeholder investment. The Advisory Platform acts as an incubator for infrastructure projects, advising the project initiators on feasibility, impact, and strategy. Finally, the Investment Vehicles aid projects with investor-readiness and risk-proofing. The Cities Investment Facility gives urbanising cities the opportunity to fund and implement SDG-aligned infrastructure projects, while simultaneously providing a high standard of risk mitigation to potential investors.

While many of the projects hosted on the platform so far are located in Latin America and Asia, select examples are found in the Arab region. A social housing scheme in Mogadishu, Somalia, which seeks to create integrated mixed-use housing is hosted on the platform, as well as the implementation of sustainable urban drainage systems in Amman, Jordan.[273]

272 Center for Mediterranean Integration, 2018.

273 UN-Habitat, 2022c.

Emerging and Atypical Financing Mechanisms

The range of opportunities to mobilize new finance into SDG-related urban projects does not end here. Arab countries and municipalities should also consider the strategic use of other innovative ways to finance sustainable urban development such as Corporate Social Responsibility (CSR), Islamic Finance (IF), a system that is unique to the Arab region, and leveraging publicly owned assets (or land value capture).

Corporate Social Responsibility

The region's economies are rapidly liberalising, which is leading to a gradual shift from the socialist ideologies of the past to a more modern, capitalistic environment. In recent years, both domestic and international corporations have established a strong foothold in Arab countries. This has led to the exploration of CSR as a viable means of financing projects for social good by many countries.

In the CSR model, the government creates a set of incentives for corporations to invest part of their profits into the community through sponsorships of various programs for the development and maintenance of infrastructure that improves civic quality of life. These incentives typically take the form of tax breaks but can also be other innovative agreements such as provision of public land for private use. Governments can also create CSR as a mandatory requirement for companies as part of their permit to operate within certain markets. The governments of Dubai, via the Chamber of Industry and Commerce, and Syria have been working towards utilising CSR since the mid 2000s.[274]

In Cairo, in 2015, the Union of Banks was involved in financing the upgrading of an informal area in Helwan, with the total budget of 300 million EGP. The Viva Egypt fund (Tahya Masr), which is involved in building public housing projects in Egyptian cities, mainly depends on receiving grants from the private sector, which accordingly is deducted from the taxes they are required to pay.

Another important mechanism for engaging the private sector in CSR efforts and financing development is the UN Global Compact. The Global Compact is an attempt to engage the private sector in social and environmental protection by inviting them to partner with UN and state agencies on practical initiatives. Companies that sign up to the Global Compact engage themselves to respect internationally agreed principles of human rights, labour legislation, the environment, and anti-corruption, and are required to report on their achievements.[275]

Islamic Finance

Islamic Finance is one of the fastest growing industries in the global financial system and remains underutilized in the pursuit of the SDGs in Arab countries. Institutions and banks that follow Sharia principles can be a source of capital for urban development at lower rates of interest or other favourable terms for borrowing municipalities or other governments. Islamic banks are attuned to Sharia principles as well as the SDGs and consider Islamic Finance as an excellent tool for financing sustainable development. In a recent study conducted by the General Council for Islamic Banks and Financial Institutions (CIBAFI) in partnership with the UN in Bahrain, it was found that there are strong synergies between Sharia objectives and the Sustainable Development Goals.[276]

274 Selvik, 2013.
275 Ibid.
276 Baharudin, 2021.

Leveraging Publicly Owned Assets – Land Value Capture

A policy strategy known as 'land value capture' enables communities to recover and reinvest increases in land value brought about by public investments and governmental actions. It can be a crucial tool for governments to achieve favourable fiscal, social, and environmental outcomes when utilised in conjunction with good governance and urban planning principles.[277] Redevelopment of a settlement into a mixed-use, high-density neighbourhood is a workable solution in areas with high land values, little vacant land, and significant demand for public housing. It is regarded as a 'value-capture mechanism' in that it encourages higher built-up residential densities and a combination of social housing, private housing, and commercial uses that is economically sustainable. In order to maintain livelihoods and community cohesiveness, it is crucial that informal dwellers be allowed to remain where they are, making this approach socially accountable.[278]

One of the major challenges in the Arab region is the lack of stocktaking activities when it comes to public assets. As previously mentioned, taking stock of what a city administration owns can be an excellent source of generating new resources. An example of revenue generation through this approach comes from Cairo, where the city sold 2,100 hectares of desert land in a 2007 open market (public auction) for USD$ 3.12 billion. [279] It is worth noting that such decisions should be taken against the backdrop of the long-term context of the municipality so that the sale of assets and land is not at the expense of reducing the capacity of local authorities to implement coherent policies at the city or community level or reducing future revenue sources.

277 OECD, 2022.

278 UN-HABITAT, 2018a.

279 OECD, Lincoln Institute of Land Policy (2022)

Box 34. Integrated Urban Development, Hayenna, Egypt

The "Integrated Urban Development Project: Hayenna" aims at supporting the Egyptian government's efforts in sustainably accommodating and planning for the expected increase in population and urbanization rates through offering a context driven process for managing the urban expansion processes in existing cities and supporting the densification of informal inner-city areas.

It employs an integrated urban development approach to plan the process of urbanization in a way which optimizes and capitalizes the value of urbanization for all, through participatory and inclusive comprehensive planning, it transcends the focus on physical planning to the integration of physical, economic, financial, institutional as well as human capacities. The project is based upon *UN-Habitat's three-legged approach*, bringing together urban planning and design, public finance and economic development, and policy making and legislative reform, where good functioning cities depends on good design which cannot be implemented without legislation, governance and sustainable financial arrangements, which requires sustainable urban economy, where all should be promoted by good urban design.

The project contributes to enabling sustainable urban development in both, city extension and inner-city areas, through applying its methodology in two sites in two pilot governorates as well as proposing legal and institutional reforms on the sub-national and national levels. It tackles issues of urban development from a multidimensional perspective, aiming to *integrate spatial planning, land management and local economic development on the one hand and public finance and investment planning on the other hand*. Interventions are situation/context-specific, with particular emphasis on relevance to human capacity and financial resources as well as recognition of political realities. The project increases the range of appropriate tools, including *innovative financial mechanisms, availability of increasing access to serviced land, and lowering the proportion of informal development* in the pilot governorates.

Leaving No One Behind Through Participatory Planning

Seen in the context of rapid urbanisation, participatory mechanisms involving all members of the public (ie. vulnerable communities, women, youth, persons with disabilities, the elderly, migrants, etc.), are imperative in promoting the inclusive urban development of cities and human settlements and securing the effective distribution of services. Governments in partnership with donors and development agencies have implemented several programmes addressing various issues related to democratisation and community participation as well as balanced territorial development. While the objectives of these programmes varied from one country to another, they all focused on enhancing the capacities of local authorities to better engage local communities in planning processes.

For years, cities in the Arab region have been benefiting from various cooperation frameworks with donors and development agencies, such as the World Bank, UNDP, UN-Habitat, AFD, Cities Alliance, Medcities and UCLG. Cities in Tunisia, Morocco, Lebanon, Jordan, Egypt, Algeria and Palestine have engaged in similar programmes devised to serve a number of purposes, including promoting strategic territorial planning and enhancing decentralisation and local governance. To increase their impact, these donor-lead participatory city and regional level strategic development plans should be upscaled to become an integral part of the prevailing urban planning systems. Being predominantly top-down, the urban planning system in the Arab region does not respond to the increasing needs of growing cities and towns. To address the consequences of rapid urbanisation, reforming the urban planning instruments and procedures in the Arab region is imperative and should go hand in hand with on-going decentralisation reforms.

The Arab Cities 'We Want': Towards A Sustainable Urbanisation Financing Framework

Intergovernmental transfers are the main financing mechanism for urban development in the region. However, nationally centralised control and decision-making stands in the way of fulfilling the actual needs of cities and the people living in them. The problem persists down to the more local neighbourhood scale. Several procedures are to be followed, in order to improve the capacity and the possibility of the local levels to finance and manage development projects on their own.

Conclusions and Takeaways

- Cities as Fiscally Autonomous Actors: To be efficiently implemented, the transfer of functions and responsibilities into the hands of local governments must be accompanied by fiscal decentralisation. In the context of advanced regionalisation and in order for regions to implement their new competencies, it is necessary for subnational governments to receive resources from the state, while simultaneously generating their own resources.
- Need for Local Expertise: Finally, for local governments to take full political, administrative, and financial power, it is imperative to invest in strengthening their capacities and to equip them with the needed skills and know how to carry out their new roles and responsibilities in an efficient manner.
- Connection to the Outside World: If able to address key challenges such as corruption and creditworthiness, Arab cities will find willing funders on the international stage. The participation in initiatives such as UN-Habitat's Cities Investment Facility and the World Bank's City Creditworthiness Initiative can provide aid and guidance for Arab nations seeking financial help from outside of the region.
- Cohesive Strategic Vision is Needed: Whilst recognising the diversity of social, economic, and political situations among Arab countries, local governments should create several year plans aligned with the principles of the SDGs and the NUA. The plans should:

1. Be created through a representative process that includes males, females, youth, ethnic and religious groups, the elderly, persons with disabilities, resettled migrants, refugees, the unemployed, businesses, NGOs, and all levels of government.

2. Clearly define what infrastructure, both 'hard' and 'soft', is needed to achieve goals by 2030, and how it can build upon the existing stock of infrastructure available in the city, using available tools and methods. In addition to this, strategic planning is needed to reconceptualize the way we plan and manage cities to be more resilient to natural disasters and more inclusive to ensure that no one is left behind.

3. Utilize a data-driven approach to goal setting, which will require additional upfront investment in strengthening the current statistical systems that are currently quite poor; and

4. Set goals that are realistic and achievable, and that account for anticipated growth in population and space, exposure to climate related impacts and to industry shifts linked to building materials to reduce environmental and climate impacts.

After creating this plan, agencies of local governments should design specific projects and programs that will advance the city's objectives envisioned in short-term and long-term plans.

07

Recommendations

UNITED ARAB EMIRATES
Sheikh Zayed Housing Programme to grant 1,726 keys to Emiratis for new homes. © Wam

The Arab region is far from being uniform. It encompasses a multiplicity of countries and cities with widely diverse socio-economic contexts, financing capacities, infrastructure stocks and investment deficits and needs. They urbanise differently and situate at different stages of development, economic growth and welfare. The findings from this report and the subsequent recommendations do not aim to provide a "one-fits-all" solution to accelerate sustainable urban development in all the Arab cities. Instead, it represents a bird's eye view of the key observations and most common and acute challenges facing Arab cities and selected transformative actions to be undertaken by decision-makers and urban stakeholders in the region that are tailored to their specific contexts to achieve social inclusion, urban resilience and sustainability.

At the Regional Level

The 1st recommendation is that a regional governance-focused coordination and partnership scheme for stakeholders be established under the aegis of an Arab Future Cities Programme. To achieve city-level contextualization, stakeholders at the regional, sub-regional, country and city levels must be empowered and structured within a partnership and coordination scheme. Vertical and horizontal coordination is imperative to promote regional experience sharing and knowledge consolidation. Leading stakeholders may include institutions like the League of Arab States (LAS), United Nations Economic and Social Commission of Western Asia (UN-ESCWA), the Arab Town Organization (ATO), the Arab Urban Development Institute (AUDI), regional and city research centers, regional and city networks, regional and city campaign and advocacy groups, local authorities, unions of municipalities, civil society and academia.

The 2nd recommendation is the establishment of a regional and/or sub- regional and country level Municipal Academy to prepare elected city leaders, municipal staff and local stakeholders to apply their new functions in tandem with municipal decentralization reform. City-level stakeholders (including elected councils, municipal staff and other key stakeholders) must be trained and continuously prepared to assume their changing responsibilities and functions and to gradually become financially and administratively independent within the unfolding decentralization process.

The 3rd recommendation is that, in parallel with the establishment of a regional Municipal Academy, an Arab Governance Observatory should be established. This observatory should include indicators to monitor and assess country level reforms and the achievement of SDGs at the local levels.

At the National Level

The 4th recommendation concerns the future of Arab cities affected by crisis whose ability to recover would require years and tremendous resources and efforts. Immediate humanitarian relief is an absolute priority, yet there is also an urgent need for a parallel multi-pronged urban development approach that would restore local governance and the rule of law, build peace and social cohesion, promote human development and well-being, revive the economy, reconstruct infrastructure and destroyed urban fabric, and most importantly reinstate people's sense of identity and belonging while unleashing the potential of all men, women and communities to work on their own recovery. To support the effectiveness and efficiency of the government's response, humanitarian and development actors should support the governments' responses through developing a clear and well-coordinated plan of action that avoids duplication and random conflicting activities.

The 5th recommendation concerns effective leadership, with long-term commitment to social cohesion, resilience and sustainability. Political will is vital to help implementing necessary institutional, legal, economic reforms, as well as urban governance reforms, particularly those that prevent corruption and future abuse and promote transparency, social justice, human rights, and sustainable and equitable development. In conflict countries, political will should support rebuilding the capacity of all public sector directorates and departments at the organizational, technical, and human levels and invest in all aspects of human development in parallel to supporting the "building back better" of the devastated infrastructure, services and housing. This will help to improve governance and give confidence to the private sector to invest in infrastructure.

The 6th recommendation relates to unlocking the value of land as a unique profitable asset that could be stimulated through efficient management, fit-for-purpose interventions and enforced tax measures to fund public infrastructure investments or co-share associated costs for infrastructural lines in cities (ie. development rights). Land-based financing would bring more independence to the local governments and help to recover urbanisation costs if coupled with designing infrastructure investment plans for the city as a whole, reforming registration of land, enabling legislations, improved fee collection and taxation, partnerships with the private sector and empowerment of local authorities.

The 7th recommendation concerns the improvement of infrastructure project pipelines, which is complemented by better data management. Infrastructure projects must be predicated on SDG outcomes and linked to city development plans driven by sustainability targets. Projects must only be implemented with maximal devolution to city-level financing, which might also involve reforming the responsible agencies. It is thus vital to invest in local financial management capacity and implement fiscal decentralization reforms. Infrastructure should be realized within the systems of systems approach that considers the cross-sectoral interdependencies and underpins strategic evidence-based decision making for combined investments in infrastructure.

The 8th recommendation concerns the significant potential of infrastructure investments in employment generation in the Arab region. Labour-intensive infrastructure development, upgrading and rehabilitation whether in affluent or conflict-affected Arab countries could strengthen the employability of the workforce (locals, migrants, displaced and refugees) that will design, construct, manage and maintain these numerous infrastructure projects. This should be complemented with specialized and on-the-job skills development, inclusive social protection and flexible work regulations. This is particular important for cities in crisis like Benghazi in Libya or Dar'a in Syria among others in dire need to boost employment for its youth and harness the economic recovery of their urban areas.

The 9th recommendation is to identify and clarify the roles, relationships and interface between local, regional and national public authorities involved in infrastructure. While infrastructure projects' planning could be done at the national level, implementation could be handled by municipalities while maintenance and safeguarding can be granted by regional level authorities. Good maintenance of urban infrastructure generates substantial savings and reduces the total life-cycle cost of infrastructure. Concerted efforts are needed to improve human capacity in terms of strategic urban planning and strengthening fiscal arrangements for improved and equitable service delivery.

The 10th recommendation is to incentivize cities to create a virtuous cycle of 'financing infrastructure to economic growth to rising incomes and asset values to greater revenues' at the municipal level by making central government transfers transparent and assessment-formula based that considers needs, priorities and performance.

The 11th recommendation regards channelling efforts of Arab governments towards compact energy-efficient and zero-waste urban development and green infrastructure. In an era of climate change and high vulnerability of the region to climatic extremes, green urbanism is an urgent priority for Arab countries through a holistic approach encompassing all the key aspects of green building, energy conservation, local materials, eco-mobility and public spaces to ensure green and vibrant Arab cities.

Climate-resilient infrastructure is of paramount importance for conflict affected Arab cities to help them seize the opportunity of reconstruction for building post-disaster resilience and inclusion.

The 12th recommendation concerns mainstreaming human rights, gender, youth and other vulnerable groups' issues as crosscutting dimensions in infrastructure planning and maintenance, asserting their right to the city. Operationalizing this approach requires decision making to be youth and gender sensitive to women's and men's different needs and priorities. Infrastructure must be accessible to all vulnerable groups and address their own individual needs to enable them to take part in the public realm. This implies, beyond just having their issues discussed as one "issue" amongst others, women, youth, persons with disabilities, migrants, displaced and returnees need to be driving the process as decision-makers. These social categories need to be at the table and not just on the table.

The 13th recommendation concerns the ICT infrastructure of the Arab countries. Policymakers already familiar with the positive impact of high-quality ICT infrastructure on the economy and living standards more generally should be made aware of the potential benefits of the sharing economy, under the aegis of the Arab Future Cities Programme and Municipal Academies. Getting the best out of the sharing economy requires a populous that has high-speed and low-cost access to the internet, in their homes and on their mobile phones. Moreover, policymakers must build confidence in the system with secure ICT infrastructure that protects citizens' privacy, and through intelligent and adaptive regulation.

The 14th recommendation is that national governments should invest more attention and resources to build the capacities of their national statistical offices and urban observatories to produce and make available comparable, updated and accurate urban data to support spatial planning and decision-making and track SDGs performance. This should address the gathering, management, and transparent use of data, in a manner that encourages sharing and the safe use of data.

At the Local Level

The 15th recommendation is the establishment of 10-year city-level Sustainable Urban Development Plans (SUDPs) to embed the SDGs in local infrastructural outcomes. This specific participatory tool, involving multiple stakeholders, would gather endogenous city-level data to identify gaps, to design urban interventions that responds to various socio-economic and environmental needs, devise city investment plans, mobilize financial resources, guide city plan implementation, as well as monitor and evaluate progress against annual SDG outcomes.

The 16th recommendation is to formulate Sustainable Urban Development Plans to integrate value and supply chain with spatial analysis to enable local governments to take stock and leverage their current local assets through value capture. This would further increase the local revenue base through a more efficient tax collection system. Compact and dense urban layout renders the infrastructure and public services provision more economically efficient. This allows the limited municipal budget to be earmarked for other services and activities that will contribute to further urban development.

The 17th recommendation is that local development programmes repurpose existing assets for various infrastructural needs. Such a strategy is cost effective, enhances the quality of the urban environment and is in line with the New Urban Agenda. Exceptions exist across the Arab world, but they are mostly at the level of planned visions or ideas. The domination of the high-rise and iconic construction, free from contextual spatial and social constraints, needs to give way to localized interventions that address the needs, bridge urban divides and integrate the urban fabric of the city.

The 18th recommendation is to put forward a new functionality scheme for municipalities, in line with the process of decentralization, to increase professionalism in financial management and accountability, as well as strengthen municipalities' ownership of urban management and delivery of public services in urban areas, including the tackling of the issues related to planned urban expansions, informal settlements and poverty. This should go along with improving public services and reforming local taxation to ensure a proper management of public services' fees collection and spending. There is an urgent need to enhance professional accounting management and auditing at the level of municipalities. Higher revenues and lower fixed costs would allow cities to invest in a wider range of long-term capital investments that would create economic opportunities and improve quality of life.

The 19th recommendation is that local governments tap into innovative financing mechanisms that are described in this report, including PPPs, Islamic finance, cooperative finance (co-op) and crowd funding, to contribute to the overall resource needs. Such innovations offer new opportunities for local governments to access funding that would otherwise be beyond their reach. In doing so, governments will identify new sources of revenue to fund important sustainable development mandates without being tasked with redirecting funds that might already be earmarked for specific uses.

The 20th recommendation is to enhance the economic competitiveness of existing metropolitan areas in Arab countries through strategic public investments in infrastructure and the built environment, to support the growth of new knowledge-based, research, technological and financial activities that can generate innovation and help to curtail a country's over reliance on finite resources (such as oil revenues). Along with this, it is important to balance urban primacy with investment in intermediate cities, small towns and village clusters to strengthen their economic base, making them more attractive and enhancing their linkages with other urban areas in the process.

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