EXECUTIVE SUMMARY
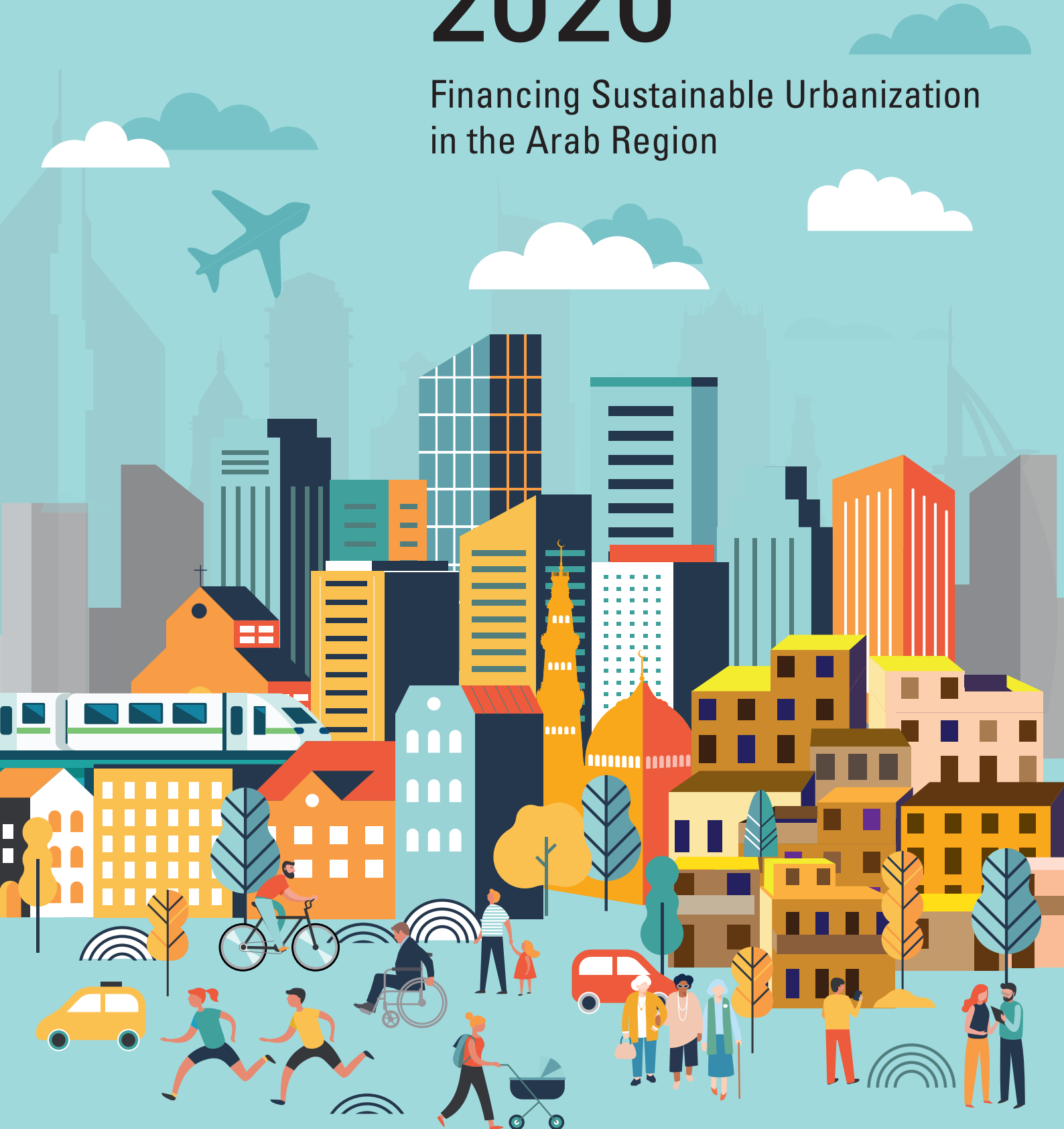
The State of Arab Cities
2020

Financing Sustainable Urbanization in the Arab Region

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in the Arab Region

Algeria ©Hadri AbdelKrim

Background

The previous and first State of Arab Cities Report in 2012 was a groundwork publication that mapped the broad facts and trends of urbanisation in the region, as well as the historic background to the Arab region's significant urban heritage. However, the world has changed even in the relatively short period since 2012, in some startling ways that are especially challenging to many countries contained in this report.

Since that last reckoning, the region has been buffeted by various conflicts and massive displacement, with an impact that has led this report to designate the economic and social status of some as *conflict or post-conflict states*. Moreover, since 2012, the real impact of climate change has swung from peripheral discussion to the centre of government policy-making, as the likelihood of real near-term impact increases. If the fifth Intergovernmental Panel on Climate Change (IPCC) sea level predictions of 2014 transpire for example, within two decades the city of Alexandria, Egypt's principal port and a major industrial centre, faces the loss of a majority of its industrial area, its port infrastructure, and housing for most of its urban population, quite apart from its priceless antique heritage.

Further, since 2012, a global crisis of trust in government has swelled in a continuum of flawed policies, mounting inequalities, vulnerabilities and exclusion. In a region where around a third of the population is aged 15 to 25, and youth unemployment is 30 per cent, the quality of the bond of trust between government and an electorate that senses itself excluded from the fruits of development is critical.

The global demographic weight now leans ineluctably towards the city, the dominant organising principle of human coexistence. The management of the metropolis great and small is the *force majeur* of our time, a process that either inefficiently acts as a drag on human development, or which can be harnessed to create prosperity and to spread the benefits in pursuit of social tranquillity and individual wellbeing. It is in cities that

smart infrastructure underwritten by innovative financing mechanisms and integrated planning, combined with economies of scale, can produce the best results for fruitful coexistence.

Egypt ©Adel Beheiry
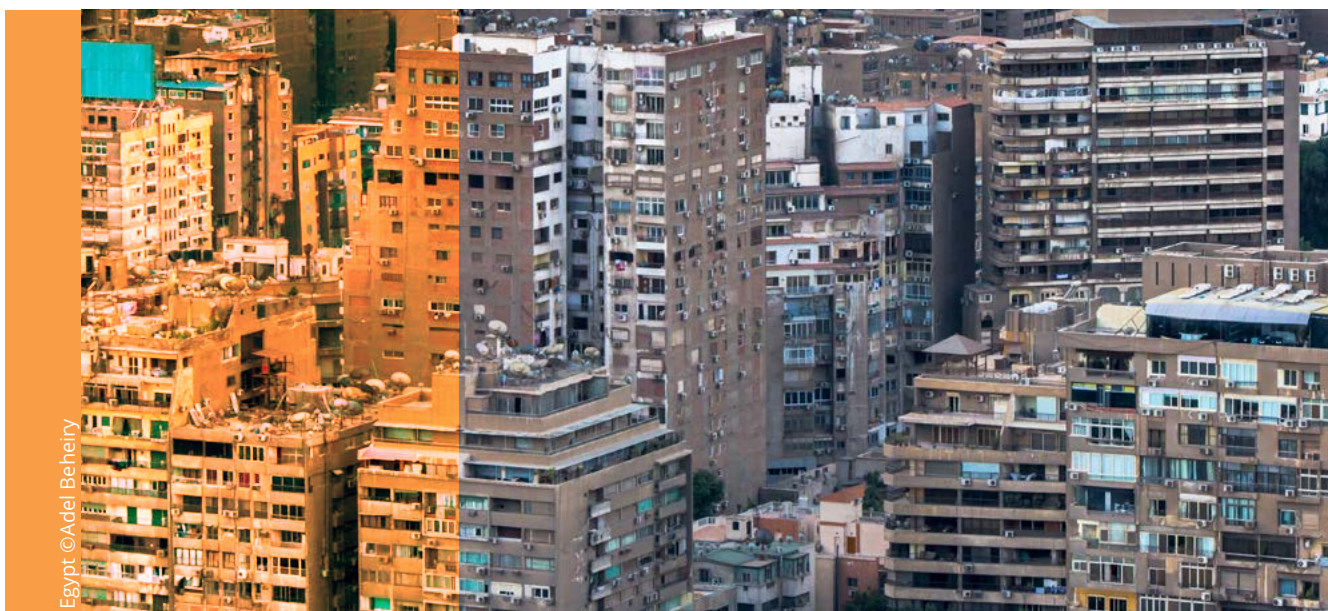
Why infrastructure?

In its second edition, *The State of Arab Cities* report 2020 is driven by a sense of urgency around the headlong expansion of urbanization, in a area where more than two-thirds of the population will reside in cities by the middle of this century. In 1950, just two cities of the region had a million people, whereas by 2025 this is expected to reach 31. At a time whereas many Arab countries are undergoing major infrastructure initiatives and the proliferation of new cities, it is particularly useful to examine the role played by urban infrastructure in shaping the region as a whole and influencing its urban future.

If Arab cities are to address the mounting needs of their inhabitants, the report seeks to demonstrate that innovative sub-national financial instruments and significant urban infrastructure investments must be harnessed to help forge inclusive, prosperous and resilient urban settlements. Well-managed urbanization can serve as the engine of sustainable development as the majority of people pursue happiness and fulfillment in cities and towns. Embracing a holistic approach to urban infrastructure planning and provision, tied to efficient institutions and adequate financial resources, will catalyze positive societal changes. Effective and sustainable infrastructure serves as lubricant between people and their built environment, now and into the future.

The State of Arab Cities report 2020 argues that infrastructure answers two immediate and long-term needs. Firstly, the smart reordering of decentralised municipal finances to build, maintain, and retrofit infrastructure is one of the most narrowly pragmatic and achievable interventions possible for governments and municipalities, with some highly effective small and large-scale examples from across the spectrum of the Arab region.

Secondly, the report suggests that in a region of 22 countries often beset by social tension, exclusion, poverty, and conflict, the planning and implementation of infrastructure augments peace-building, stabilization,

and legitimacy and inclusion, as citizens participate in shaping the environment of their cities. Infrastructure, as this report argues, can either be a vehicle for political and social exclusion that cements narrow conceptions of the city, or the engine for political and social inclusivity so vital for the region's women and young people, as well as groups like persons with disabilities, migrant workers, and minority religious and ethnic groups whose human capital and contribution are often wasted through marginalization.

Dubai, United Arab Emirates ©Hassan Ismail

Who should read this?

This report is primarily addressed to non-specialist and urban planning specialist administrators and decision-makers at the national, subnational and local levels. These professionals face the daily reality of making and implementing policies and choices that affect wellbeing outcomes for tens of millions of ordinary citizens living and working in urban areas in the Arab region. Nobody is better placed to understand the challenges of city administration than those with boots on the ground.

The tangible outcome of this report is a series of specific evidence-based urbanization policy recommendations that are feasible, implementable, cost-effective and transformative, and shaped to account for the multiple exigencies of the Arab region. Since the report is intended to provide pragmatic advice and insight, it has been a consultative process that has drawn from the expertise of national and local decision-makers in addition to administrative specialists and practitioners from the Arab region, as well as academics, finance experts, and development professionals.

Syria ©Belal Bssam ajouz

01

Urbanization Trends in the Arab region

This chapter portrays the contextual forces currently underlying urbanization in the region that vary from one country to another and discusses some of the sustainability and stability implications. Some of the persistent and emerging trends that shape cities in the Arab region in different sub-regions include urban sprawl, inadequate infrastructure and services, shortage of affordable housing, increased poverty and social exclusion, wealth disparities, youth unemployment, gender inequality, unequal access to land and property, air pollution, waste management, traffic safety and congestion, unsustainable patterns of water and energy consumption, and climate change. These are aggravated by the protracted nature of conflicts and resulting large scale damage and massive displacement in some sub-regions and countries. This chapter concludes with an analysis of existing governance and planning frameworks and required institutional reforms and enhanced local capacities to achieve sustainable urban development at the regional, national and city levels.

Urbanization Trends in the Arab region by sub-region (1950-2050)
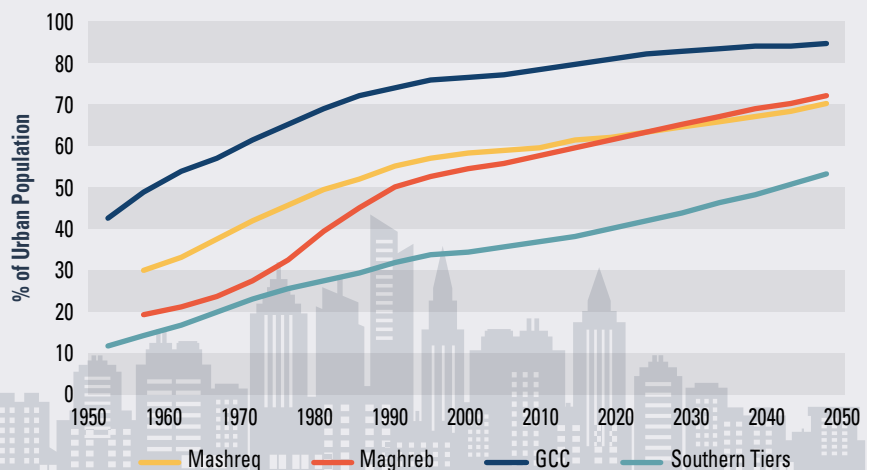
Source: United Nations, Department of Economic and Social Affairs, Population Division (2018). World Urbanization Prospects: The 2018 Revision, custom data.

02

The state of infrastructure

Infrastructure is crucial for the development, functioning and prosperity of cities and towns, and the people who live there. It is essential for the environmental sustainability and economic growth of urban areas. It promotes the competitiveness of cities and regions, improves productivity and employment opportunities, and enhances the investment climate of cities in general. This chapter is concerned with the present. It sketches an overview of the current state of urban infrastructure in the Arab region, the factors that account for intraregional disparities in infrastructure, and some innovative locally-driven infrastructural initiatives. It contextualizes the discussion by defining the term 'infrastructure,' and looks at the relationship between infrastructure development and the New Urban Agenda, specifically the degree of implementation among the various Arab States. Using the available data, it defines as closely as possible the existing infrastructure gap, areas of deficiency and suggests measures required to achieve SDG 11 across the region.

03

The cost of infrastructure

The very notion of 'infrastructure' has rapidly evolved in the 21st century. Additionally, countries have different financing needs given their divergent economic size, stages of development, level and rate of urbanization, stability, and disparities in the existing stock of infrastructure among other factors. This chapter is concerned with the future. It discusses what ought now to constitute infrastructure in the modern Arab region, and the implication for projected financial needs, as well as the challenges this stirs for urban centres. It identifies areas of concern seen as vital priorities for achieving resilient and sustainable urban infrastructures and the extent of their implementation in Arab cities. This is contextualized by sketching an overall picture of the planned infrastructure projects in the region that would allow for estimating the local public infrastructure financing needed to achieve SDG 11 in the Arab region. It examines the project pipeline in the Arab world and analyses the significant infrastructure investment gaps between the different sub-regions, highlighting a diverse selection of examples of promising practices favoring inclusion and sustainability.

04

Financing infrastructure

As cities in the Arab region grow, systems of urban finance need to change to cope with the growing need for infrastructure. Effective financing relies on three key steps: establishing what is needed and assessing existing assets; evaluating how much is needed and by when; and determining which financial instruments are best fit for purpose. This chapter provides an overview of the Arab region's existing financial mechanisms and shares good practices, including opportunities offered by strengthening frameworks of fiscal and administrative decentralization. It analyzes the municipal budgets of a number of Arab cities across the region as well as their capacity to manage their physical, economic and population growth, and to successfully deliver on their mandates with their current resources. It demonstrates how with fiscal reforms, cities can accelerate progress towards Agenda 2030 and the New Urban Agenda, amplifying the drive for inclusion, equality, and equity. The chapter also discusses the lack of data that ought to underwrite good policy in the region, and sketches success stories of effective public-private partnerships, well-managed privatization for service delivery, and other innovative models of financing sustainable urban development at the city level.

05

Accessing finance

Access to finance is a major constraint to city governments in the Arab region intent on delivering their development agenda and the promise of the New Urban Agenda. This chapter describes the framework preconditions necessary for a diversity of Arab cities to obtain the finance they need to implement a diversity of infrastructure that improves the lives of urban-dwellers. Governments at all levels have a shared interest in this outcome, and distinctive responsibilities in developing, strengthening, leveraging and managing the financial resources required. The chapter discusses the required economic, fiscal and enabling environment; the coherence of policy frameworks; how to mobilize public and private finance; the expansion and diversification of local revenue bases; the role and potential of financial intermediaries such as banks and development funds; transparent need-based financial transfers from central to local governments; and how to capture the appreciation in land and property value generated through urban development processes, infrastructure projects and public investments.

06

The sharing economy as a contributor to sustainable infrastructure

Over the last years, the spread of smart technologies and the sharing economy, headlined by companies such as Uber and Airbnb, opened new forward-looking pathways for sustainable urban development. This chapter aims to draw the region's attention to the opportunities provided by the sharing economy to the Arab cities. The sharing economy represents a fundamentally new method of organizing the economy, and the key lessons to be drawn from analysing its opportunities and risks are yet to be absorbed into mainstream economic policy. Notably, by their very nature, the productivity of many sharing economy services interacts with issues pertaining to urban development through creating sharing infrastructure. Moreover, in the Arab world, where there is a need to create jobs for youth, increase transportation or accommodation options, the sharing economy may play a critical role in enabling people to earn a living and act as producers rather than consumers; decrease consumption waste and traffic congestion and emissions; build social capital through sharing and participation; and provide policymakers with a suite of interventions with a low capital requirement.

Jordan ©Laith Matarweh

Underlying Theme:

Expanding sustainable urban infrastructure for all, including those left furthest behind

FINDINGS AND POLICY GUIDANCE

A review of planned projects in the region shows that large developments will continue in a manner that is unsustainable in the long run. Current patterns illustrate the need to re-orient infrastructure planning towards more compact, connected, people-centred and low-carbon infrastructure in Arab cities. Future projects such as airports, highways, new cities and mega-developments should be blended with a systemic and integrated approach in infrastructure planning, to manage the interdependencies and linkages between the various sectors and address the immediate, as well as the long-term needs. Such a vision would incorporate small-scale interventions that would cater to city residents, enhance their quality of life and mitigate entrenching social divisions. The result is an Arab city, clean and compact, geared towards providing equal welfare and opportunities for all people, including future generations, while leaving no one behind.

Findings

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 urbanize differently and situate at different stages of development, economic growth and welfare. The following findings and recommendations do not aim to provide a "one-fits-all" solution to accelerate sustainable urban development in all the Arab cities. This list 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 the Arab decision-makers and urban stakeholders in the region that are tailored to their specific contexts to achieve social inclusion, urban resilience and sustainability.

The 1st Finding

The 1st finding is that *the Arab region must accelerate efforts to attain SDG 11 in particular, and all SDGs in general by 2030.* Compared to the world's and other regions' averages, data regarding several SDG 11 indicators shows mixed performance in the Arab region and the need for improved access to basic services and living conditions in urban areas.

Arab small- and medium-cities are currently urbanizing at a slower pace than large- and mega-cities while the situation was the opposite in the previous decade. Although trajectories of the 22 Arab countries are not homogenous, conflict-affected Mashreq and Southern tier countries in the region are highly vulnerable to falling off-track should present trends continue.

Indicator 11.1.1: Proportion of Population Living in Slums*
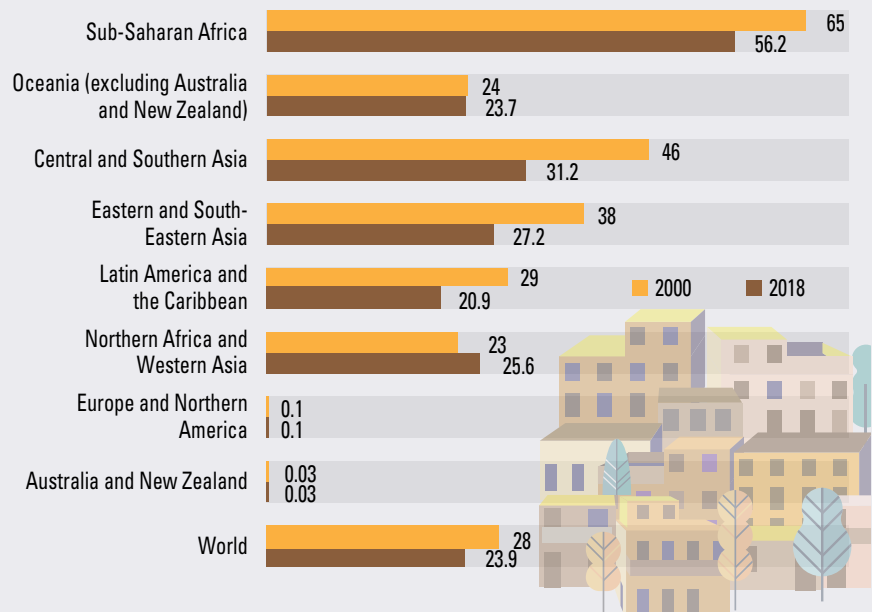
Source: UN-Habitat, Urban Indicators Database 2018.

*Represented by the urban population living in households with at least one of the following four characteristics: lack of access to improved drinking water; lack of access to improved sanitation; overcrowding (three or more persons per room); and dwellings made of non-durable material.

Region	2000	2018
Sub-Saharan Africa	65	56.2
Oceania (excluding Australia and New Zealand)	24	23.7
Central and Southern Asia	46	31.2
Eastern and South-Eastern Asia	38	27.2
Latin America and the Caribbean	29	20.9
Northern Africa and Western Asia	23	25.6
Europe and Northern America	0.1	0.1
Australia and New Zealand	0.03	0.03
World	28	23.9

Indicator 11.2.1: Share of population with access to public transport

Source: UN-Habitat, Urban Indicators Database 2018

Region	Value
Global Average	49
Sub-Saharan Africa	35
Central and Southern Asia	37
Eastern and South-Eastern Asia	41
Western Asia and Northern Africa	48
Latin America and the Caribbean	54
Northern America and Europe	72
Australia and New Zealand	80

Indicator 11.3.1: Land use efficiency

Annual land consumption rate (%)

Legend:
- Thinly populated cities 1990-2000
- More populated cities 1990-2000
- Thinly populated cities 2000-2015
- More populated cities 2000-2015

Categories: Australia and New Zealand; Central and Southern Asia; Eastern and South-Eastern Asia; Latin America and the Caribbean; Northern America and Europe; Sub-Saharan Africa; Western Asia and Northern Africa
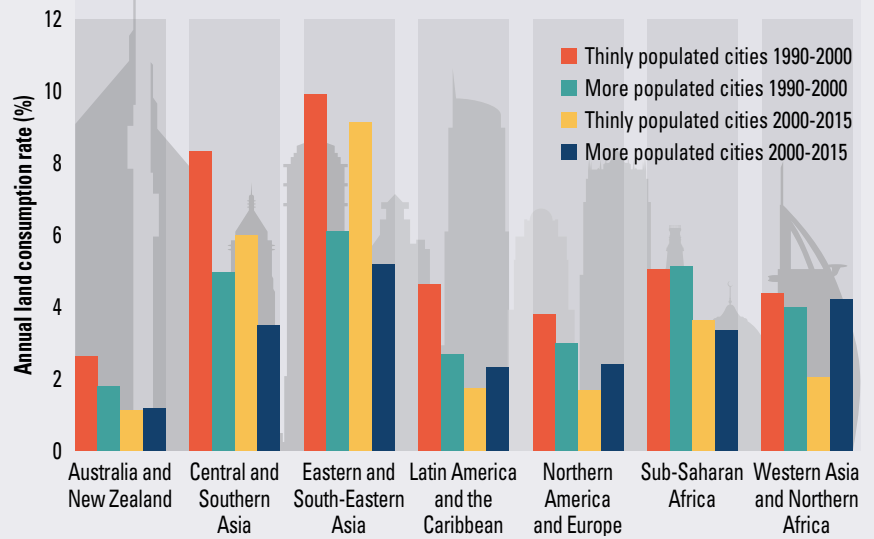
Source: UN-Habitat, Urban Indicators Database 2018

11.6.1 - Municipal Solid Waste collection coverage, by cities (%)

Legend:
- 2010-2018
- 2001-2010

Region	2010-2018	2001-2010
World	81	76
Australia and New Zealand	99	99
Oceania (excluding Australia and New Zealand)	61	60
Sub-Saharan Africa	52	32
Northern Africa and Western Asia	75	79
Latin America and the Caribbean	77	80
Europe and Northern America	94	97
Eastern and South-Eastern Asia	81	85
Central and Southern Asia	85	84
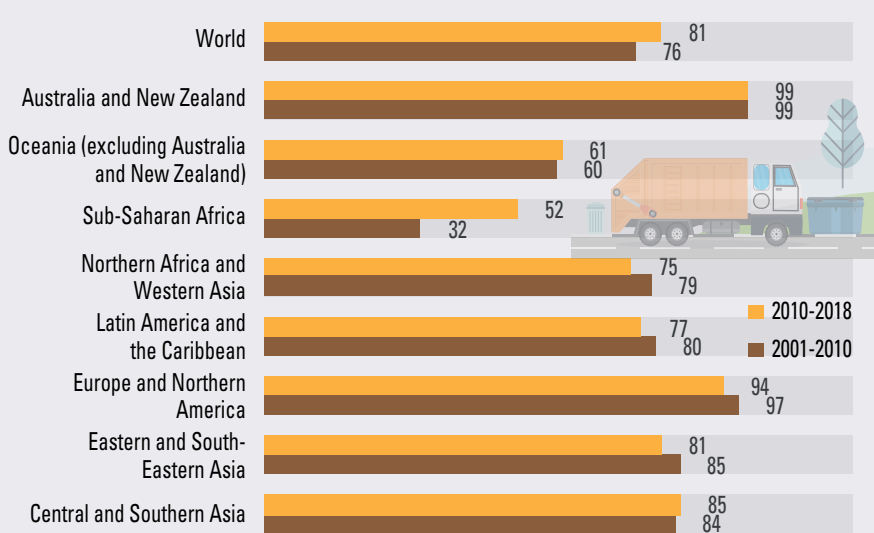
Source: UN-Habitat, Urban Indicators Database 2018

Indicator 11.7.1: Share of population with access to open public spaces

Region	Value
Global Average	35
Eastern and South-Eastern Asia	22
Central and Southern Asia	26
Sub-Saharan Africa	26
Western Asia and Northern Africa	40
Latin America and the Caribbean	46
Northern America and Europe	49
Australia and New Zealand	67
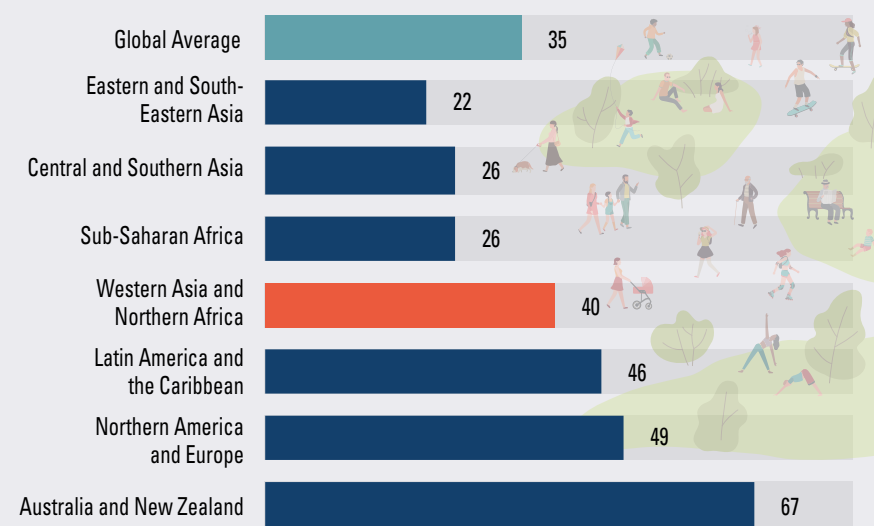
Source: UN-Habitat, Urban Indicators Database 2018

The 2nd Finding

The 2nd finding is that *a majority of Arab region cities suffer from a basic governance flaw.* The design of the urban components of the SDGs and the New Urban Agenda, and specifically SDG 11, is such that local and city governments are key to achieving those targets. Indeed, considering the sheer number of urban components, the SDGs cannot be achieved without empowered cities. Yet, as described throughout the State of Arab Cities report, interlinked and complementary governance at the national, regional, and local levels, which supports the empowerment of city-level financing, decision-making, and infrastructural development, is mostly absent.

The 3rd Finding

The 3rd finding is that 10 years out from the Agenda 2030 deadline, *Arab region cities are at a grand conceptual crossroad: can cities be catalysts of urban equity or harbingers of entrenched disparities?* In many respects, this debate takes place throughout the world, but it is particularly intensified in this region, given high levels of inequality both within countries and cities and across the region itself. The proliferation of the high-rise building and skyscraper model, and new development trends such as new cities, megaprojects and gated communities' risks exacerbating existing spatial disparities and leaving a growing number of residents disadvantaged.

The 4th Finding

The 4th finding *concerns the lack of effective national and local data throughout the region,* that researchers need to be able to support policymaking in infrastructure, financing, and the sharing economy and other Smart City initiatives. There is a lack of robust and harmonized national databases providing disaggregated data that assesses national development targets and SDG indicators. This has an acute effect on the ability of policymakers to design effective policies that are responsive to developments on the ground, and which can spur medium to long-term investments and guide projected needs in the Arab region. Governments complain of a lack of resources for gathering data, but this is not the only cause. Companies also withhold data for reasons of commercial confidence. Sound, comparable and accurate data that is available to decision makers as well as urban-dwellers is key to ensure sustainable planning for the future and to track the region's SDG performance.

The 5th Finding

The 5th finding concerns *turning commitments towards global development agendas into action.* Arab states are proposing numerous initiatives and programs that seek to accommodate the New Urban Agenda and sustainable development. The extent to which this is applied on the ground through actual projects varies considerably. In many cases, it contradicts certain policies such as housing that promotes sprawl. Arab governments need a better integration between what is envisioned vs. what is implemented on the ground.

The 6th Finding

The 6th finding concerns the *insufficient and unsustainable planning of infrastructure.* The pace of population growth in cities and urban centres in several Arab countries is outstripping the execution timeline of projects, reducing the feasibility and

efficiency of major infrastructure investments. In Egypt, sprawling development and low-density housing in suburbs and new cities increases the per capita costs of infrastructure. This inefficiency is compounded by highly centralized infrastructure investment decision-making, the overlapping of mandates and the lack of coordination between national, regional and local public authorities responsible for different types of infrastructure. This is reflected in missing synergies at different points and the disintegration of different infrastructure sectors. Infrastructure projects are often disconnected or don't complement each other even if they belong to the same sector. In Lebanon, a main sewage network constructed by the Council for Development and Reconstruction (CDR) (national government) didn't function as it was not connected to the secondary and sub-secondary networks executed by the Water Establishment (regional) or the municipality (local). The imbalanced distribution of social service infrastructure interventions between rural and urban areas in Arab countries deepens territorial inequalities.

The 7th Finding

The 7th finding concerns *the monetization of urban space.* Across the region there is a growing trend towards commercialization 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.

The 8th Finding

The 8th finding concerns the *devastating socio-economic effects of protracted conflicts and sheer scale of damaged infrastructure, public services, housing and cultural heritage* experienced by Arab cities in crisis, putting the well-being of the residents at stake and jeopardizing the historical identity and plurality of these cities. Rebuilding these cities is one of the major challenges facing the Arab region. Minority groups living in these cities were forced out and their properties confiscated by warring parties making return more difficult. Indeed, the infrastructure of many of these cities was under pressure, even before the crisis. The situation is exacerbated by the control of conflict parties over infrastructure networks in hard-to-reach areas, marginalizing civil institutions and development actors, fuelling territorial disparities and hampering any possibility for stabilization and sustainable rehabilitation of services.

The 9th Finding

The 9th finding refers to reconstruction efforts underway in the region when conflicts are not fully settled. *National and local reconstruction is challenged by the outdated urban plans of the cities* and the inability to create and sustain formal urban expansion zones due to the lack of infrastructure and public services. Infrastructure recovery is confronted by a shortage of funds, the loss of urban assets due to destruction, as well as the skilled human resources in governments institutions due to violence and migration. In Iraq, for instance, national and regional interest in infrastructure upgrades and extensions financed by capital investments are heavily dependent on fluctuating crude oil export revenues.

The 10th Finding

The 10th finding relates to *the unsustainable land policies that are exacerbating low-density urban sprawl, the cost of urbanisation and the dominance of individual transportation* in Arab region countries. Several are suffering from land depletion and scarcity within their city centres such as the city of Mosul in Iraq where agricultural land becomes the only viable option to access housing for many people. Land quality is also deteriorating in many Arab countries due to desertification and climate change effects.

The 11th Finding

The 11th finding concerns *the deficiency in green infrastructure.* The region as a whole displays underinvestment in specific and large-scale infrastructure projects that address green urbanism. The urban paradigm embraced by many Arab cities is largely occupied with car-oriented planning that neglects the provision of urban spaces for public use.

The 12th Finding

The 12th finding concerns *the slow transition towards smart infrastructur*e. As many local and national governments move towards smart systems in city management and planning, Arab cities are making little headway. In spite of small-scale efforts, these do not rise to the large-scale and integrated vision of a Smart City. Several GCC cities are at the forefront of implementing smart systems. Specifically, three sectors need to be addressed more comprehensively: smart mobility systems that move towards environment friendly modes such as biking and car-pooling; a comprehensive implementation of smart city systems that respect notions of privacy and human rights; and a comprehensive strategy for developing local digital capabilities along with institutional and regulatory reforms to engage private finance. The success of the smart cities initiatives underway in Kuwait, Saudi Arabi, Qatar and UAE rely mainly on the capacity of these countries to establish an accessible open database for all data generated by smart activities and achieve a balance between data dissemination and privacy.

The 13th Finding

The 13th finding relates *to the private participation in infrastructure investment* that is quite limited in many Arab countries or oriented towards megaprojects, and less for utilities, while the scope for increasing public investment has tightened. In many cases, there is a general perception that the government is responsible for financing infrastructure. Lack of transparency, accountability and poor governance and ill-equipped institutions to develop bankable infrastructure projects in addition to economic uncertainty, complex capital markets and persistent political instability in countries plagued by conflict are limiting investor appetite and confidence in the general investment climate in the Arab region.

The 14th Finding

The 14th finding concerns *municipal revenues.* Local government capacity in financial management is insufficient in the region. As a result, public-owned assets remain untapped and local tax collection is inefficient, with a consequent effect on the maintenance of infrastructure. Local inflows do not cover expenditures and local

investment budgets are minor and insufficient to cover infrastructure investments. Lack of clear division of roles and responsibilities between central, provincial and local government creates additional barriers to improving municipal creditworthiness.

The 15th Finding

The 15th finding concerns *municipal expenditures*. The operating fixed costs from staff salaries, building and equipment rents etc. comprise a very large portion of municipal expenditures in the region. Coupled with low levels of local revenue generation, high operating expenses have shrunk Arab cities' fiscal space over time, leaving no choice but to depend on central government transfers to pursue infrastructure investments.

The 16th Finding

The 16th finding concerns *the overall health of the financial systems in Arab countries*. Lack of economic diversification and the strong need for structural transformation provides little incentive to attract private investment into Arab cities. In some cases, central governments have been keeping up with growing local demands for resources by incurring sovereign debt and transferring it to cities.

The 17th Finding

The 17th finding concerns *the sharing economy's intrinsic organic nature*. Sharing economy is an example of transformative social and economic opportunity brought about by the age of innovative ICT applications, available to nearly everyone. The sharing economy has features that have sustainability potential built-in by definition Like many innovative technologies, the sharing economy has grown massively without government direction or interference. In many contexts, it has been emancipatory, offering 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.

The 18th Finding

The 18th finding concerns the need *for inclusion and regulation of the sharing economy and equally organic frontier technologies*. Some governments have been indifferent to the complaints of those whose livelihoods have been damaged by the sharing economy, including the incumbents and the workers who feel exploited. Others have sided with incumbents, driven by their fervent lobbying efforts. Governments in the Arab region should assess the emerging evidence on the potential for prosperity together with some challenging externalities of the sharing economy in their societies to gain sustainable and equal positive impact.

Morocco ©Youssef Ioulidi

RECOMMENDATIONS

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 decentralization 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 and inter- cities, e.g. 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, & 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 reduced 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. Green initiatives such as the wind farm developments and photovoltaic Solar Power installations in Egypt, the newly established eco-city in Morocco or the Estidama rating system for public and private buildings in Abudhabi represent promising attempts by Arab cities to be backed with rigorous policies to promote sustainability. Climate-resilient infrastructure is of paramount importance for building back better Arab cities in conflict 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 *the public sector should take the lead in embracing the sharing economy*. Governments worldwide have begun to share their assets internally, reaping returns. Arab governments should use a combination of high-quality data and agile policymaking to deftly regulate the sharing economy as and when the need arises, after its ills have been clearly demonstrated. However, the sharing economy should be embraced in the spirit of civic liberalism, and as a form of realpolitik, as resistance can be both costly and futile. Arab governments must engage all stakeholders and both genders equally, in the spirit of inclusion, equity, and participation that has been emphasized throughout this report. The concerned policymakers in the region should establish protocols for hearing from all affected parties and should then seek to combine that knowledge with the emergent best practices elsewhere and become producers and not mere consumers of that data and research-driven knowledge.

The 15th recommendation is that there is a large research community dedicated to documenting the latest applications of the sharing economy, and Arab civil services should keep abreast of these developments with an eye to learn from the most promising ones, avoiding the observed negative externalities and adapting them to the national context. Many have minimal start-up costs, an attractive attribute for governments facing fiscal difficulties.

The 16th 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. It

will address the gathering, management, and transparent, secure use of data, in a fashion calculated to encourage sharing and the safe use of citizen and corporate data.

At the city level:

The 17th 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 city of Sfax in Tunisia represents a good example where the local government followed a participatory approach to develop a Sustainable Development Strategy establishing a clear vision for the metropolitan area as well as supporting plans and projects in relation to the natural environment, infrastructure development, mobility, housing, public space, socio-economic development, and culture.

The 18th 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 beyond that from 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. In this respect, the experience of the 4-year strategic Development and Investment Plans with community participation in Palestine is very relevant for scaling up across Arab cities with similar contexts.

The 19th recommendation is that cities 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 cities.

The 20th recommendation is to put forward a new functionality scheme for the 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 21st 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. For instance, the cross-subsidy mechanism applied by the Khartoum State Housing Fund (KSHF) of Sudan provides an innovative financing tool at the local level.

The 22nd 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 the 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 with strengthening their economic base, making them more attractive and enhancing their linkages with other urban areas. In Saudi Arabia, the National Spatial Strategy is a good case of integrated social development linking social and economic development with physical growth and investment.