

Saudi Cities Report 2018



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FUTURE SAUDI CITIES



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Future Saudi Cities Programme
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Saudi Cities Report 2018





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A distinctive trend in Saudi urbanization is its urban primacy with the concentration of population in large urban agglomerations such as Riyadh, Jeddah, Makkah, Madinah and Dammam.

These cities account for

55% of the urban population
and 46 per cent of the national population



Foreword

The Kingdom of Saudi Arabia is one of the most urbanized countries in the world with eight out of every ten people living in urban areas. When well-planned and managed, urbanization can serve as a transformative force that can be leveraged for the sustainable and inclusive development of cities in Saudi Arabia. Over the last three decades, rapid urbanization, infrastructure development, and the transformation of the Saudi society have brought about remarkable improvement in the quality of life of Saudi citizens. Nonetheless, urbanization in Saudi Arabia faces several challenges and has been largely dependent on oil. There are significant regional and territorial imbalances, with some cities, especially the large ones better placed to take advantage of the positive nature of urbanization.

To address these and other urban challenges, the Kingdom issued a Royal Decree (No. 28119) in 2013 that seeks to implement the Future Saudi Cities Program through the Ministry of Municipal and Rural Affairs (MoMRA) in collaboration with UN-Habitat. The Future Saudi Cities Program seeks to achieve sustainable urban development in Saudi cities through effective planning and management, including the enhancing and support of economically productive cities, and improve urban legislation and institutional framework. This Program is fully in line with the 2030 Saudi Arabia's vision and the Municipal Transformation Program of MoMRA, and it responds to the global urban development agenda that the Saudi Government has committed to implement.

This report shows with compelling evidence the current state of Saudi cities. It presents the key challenges that urban areas in Saudi Arabia contend with, as well as the opportunities they have in contributing to national and sustainable

development. Saudi cities need to be more economically diversified and productive; it is also important to strengthen the institutional and legislative frameworks of Saudi cities as a basis of implementing a reinvigorated notion urban planning that can respond to current and emerging urban challenges in the Kingdom. This report provides clear recommendations in these critical areas.

The Kingdom of Saudi Arabia is determined to make qualitative and quantitative leaps in this regard, not sparing human and financial resources. The Government understands that this requires an inclusive approach involving every facet of the society, including civil society and community-based organizations. Working collaboratively, it will be possible to advance the national and international development agenda toward sustainable development. The implementation of the New Urban Agenda and the adequate response to SDGs— Goal 11 and other urban targets— is paramount to make Saudi cities and human settlements safe, inclusive, resilient and sustainable.

This report has benefitted from the collaborative effort of researchers, economists, environmental experts, urban planners and legal experts, all of them working closely with MoMRA, Government officials and other professionals. I commend these efforts that provide a solid base from which necessary institutional, legal and programmatic changes and adaptations can be undertaken to ensure that a prosperous future of Saudi cities is reality for all.



CHAPTER 1

Emerging urban trends in Saudi Arabia



Summary

With 83 per cent of its population living in urban areas, Saudi Arabia is among the world's most urbanized countries. The high degree of urbanization is an asset given that vibrant cities constitute a transformative force, if harnessed, for improving access to services, economic and social opportunities, and a better quality of life.

The dynamics of urbanization in Saudi Arabia have favoured a few major urban agglomerations that have been the prime beneficiaries of the prosperity brought about by rapid economic growth. These cities are growing larger and faster, raising concern about the impacts of such unsustainable advance.

At least 90 per cent of the urban population lives along three corridors: the middle Dammam-Jeddah strip, the west and east coasts. Such concentration along with the increase in the size of already large cities, within the context of inadequate planning,

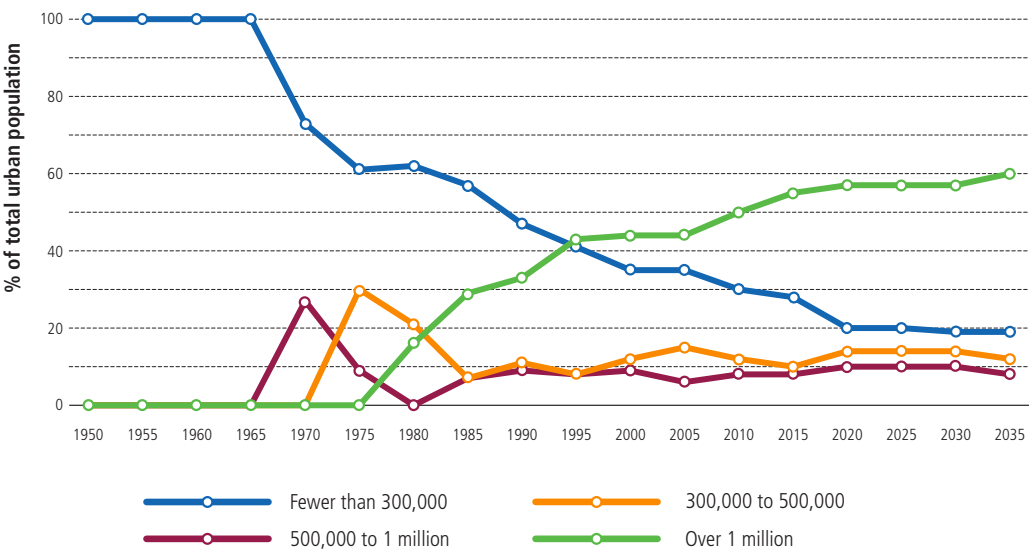
places immense pressure in on housing, water, sanitation, transport and other infrastructure necessary for the smooth functioning of cities.

A distinctive trend in Saudi urbanization is its urban primacy with the concentration of population in large urban agglomerations such as Riyadh, Jeddah, Makkah, Madinah and Dammam. These cities account for 55 per cent of the urban and 46 per cent of the national population and are growing at the expense of those that are intermediate and small.



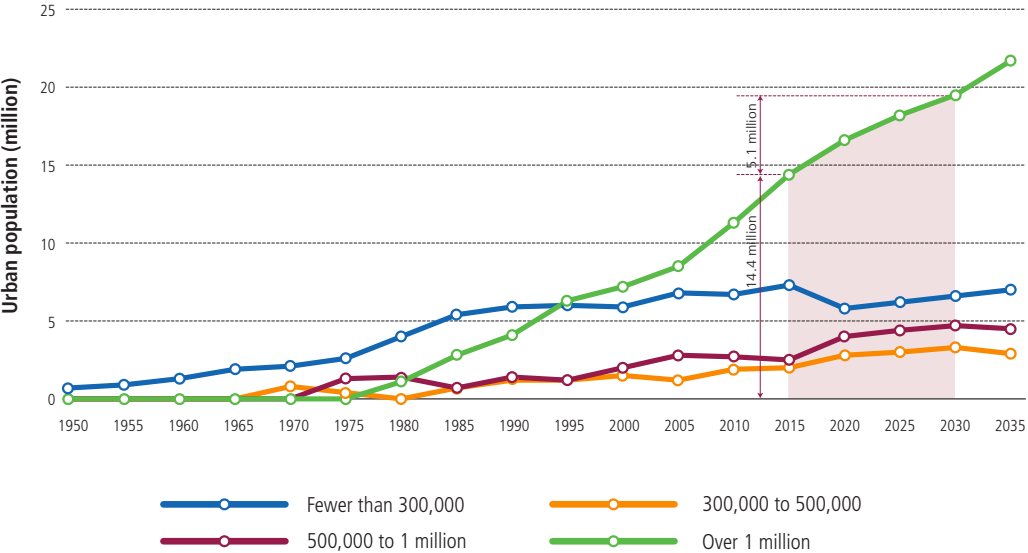
83% of Saudi Arabia's population live in urban areas making it one of the world's most urbanized countries

Figure 1: Change in urban population shares of different urban settlement size-classes in Saudi Arabia during, 1950–2035



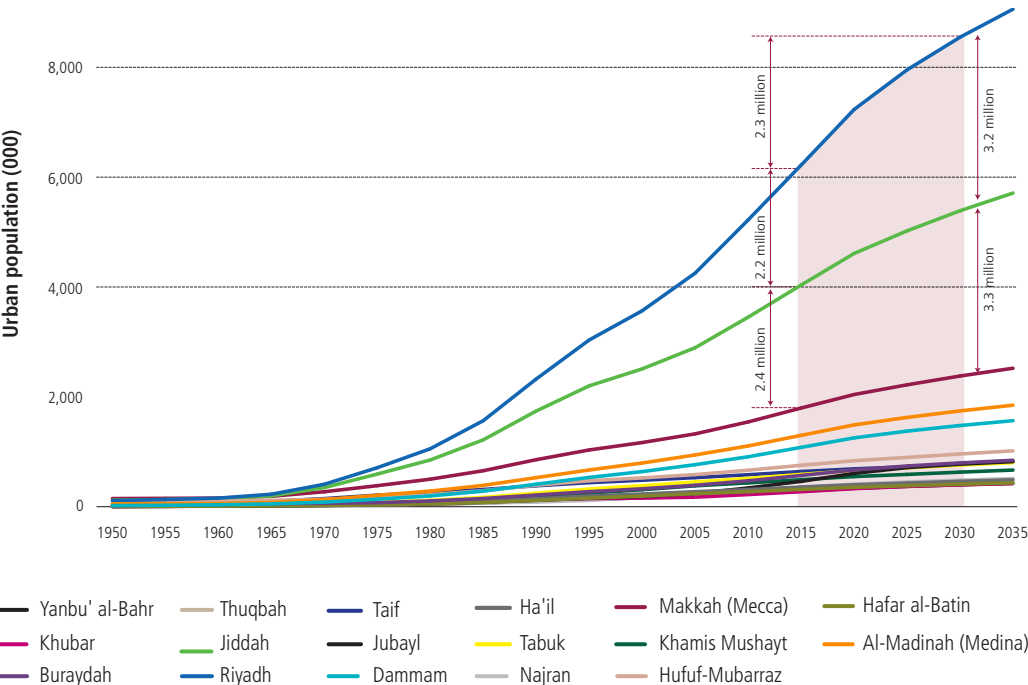
Source: United Nations (2018)

Figure 2: Change in population of different settlement size-classes, 1950–2035



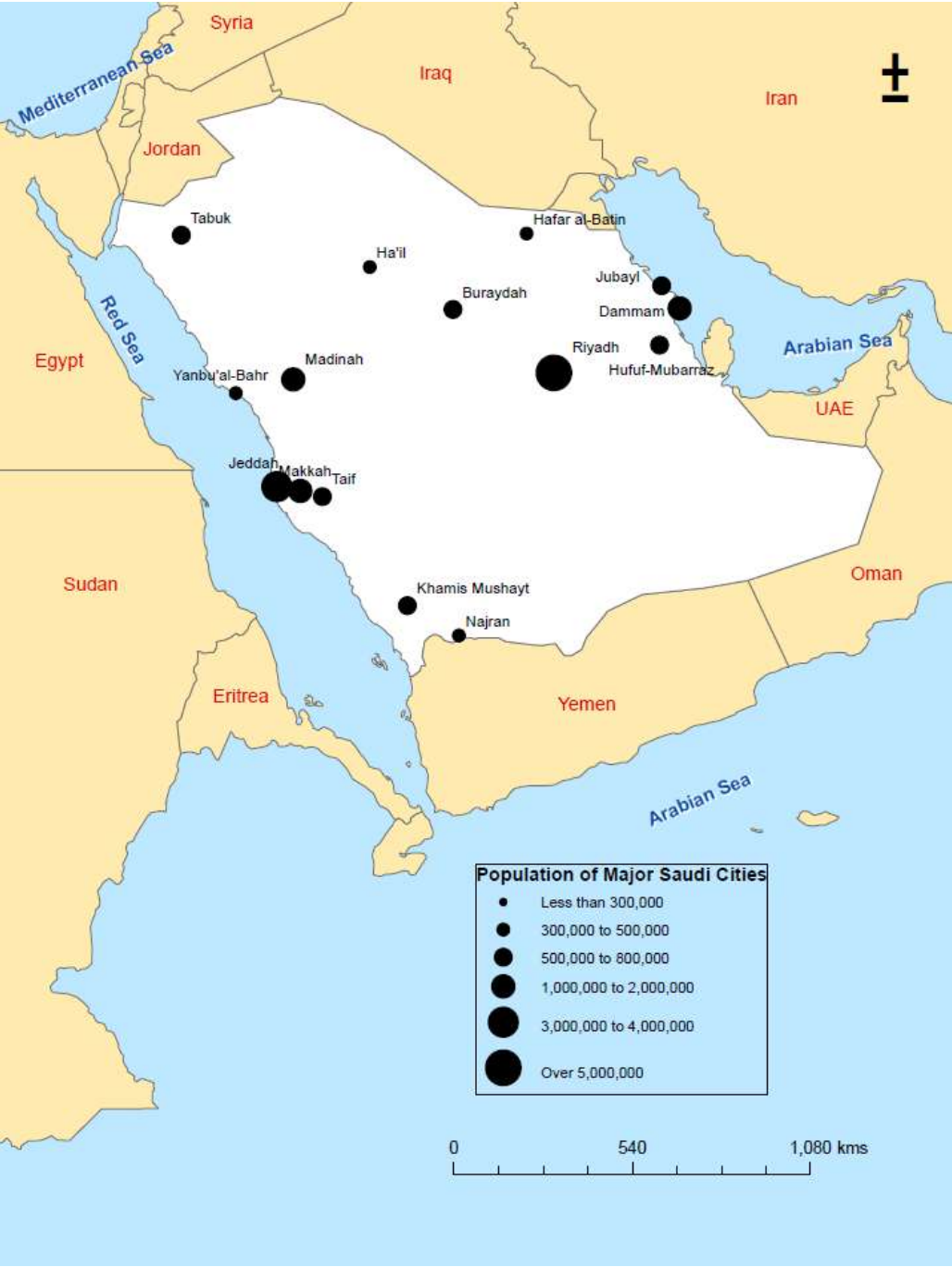
Source: United Nations (2018)

Figure 3: Change in population of Saudi cities of over 300,000 inhabitants, 1950–2035



Source: United Nations (2018)

Figure 4: Saudi Arabia: Major urban agglomerations, 2017



Source: United Nations (2018)

Table 1: Saudi Arabia urbanization trends 2015–2035

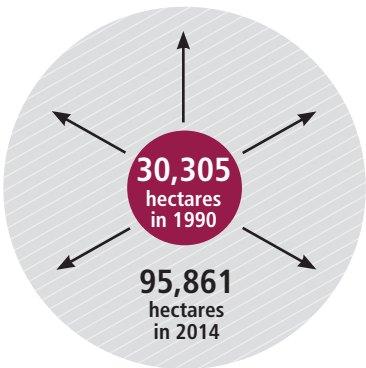
	2015	2020	2025	2030	2035
Total population (000)	31 557	34 710	37 290	39 480	41 317
Urban population (000)	26 249	29 256	31 843	34 143	36 170
Level of urbanization (%)	83.2	84.3	85.4	86.5	87.5
Five largest urban Agglomerations					
Riyadh	6 218	7 231	7 953	8 547	9 058
Jeddah	4 035	4 610	5 022	5 388	5 710
Makkah	1 796	2 042	2 219	2 379	2 521
Al-Madinah	1 299	1 489	1 625	1 744	1 848
Dammam	1 080	1 253	1 376	1 478	1 566
Total population of the five largest agglomerations	14 428	16 625	18 195	19 536	20 703
Five largest agglomerations as % of urban population	54.97	56.82	57.14	57.22	57.24
Five largest agglomerations as % of total population	45.72	47.90	48.79	49.48	50.12

Source: United Nations (2018)

Although urban primacy in Saudi Arabia offers a large range of positive externalities, it is an indication of lopsided development and has led to the neglect of its frontier regions. Urban primacy in Saudi Arabia further marginalizes intermediate and small cities, perpetuates inequality and weakens the stability of national urban systems.

While urbanization in Saudi Arabia has brought major benefits, the process is unsustainable in many respects and presents several challenges. Excessive sprawling is one of the most pervasive

challenges of Saudi cities. The physical area of these cities is expanding faster than their population. For instance, between 1990 and 2014 the built-up area of Riyadh grew at an average annual rate of 9.4 per cent, from 30,305 to 95,861 hectares. Riyadh's expansion, as in the case of most Saudi cities, has occurred mainly through extension rather than infill or densification. Excessive sprawling and low-density development in Saudi Arabia are the outcome of ineffective urban planning, affluence, and an urbanization process largely driven by private car ownership.

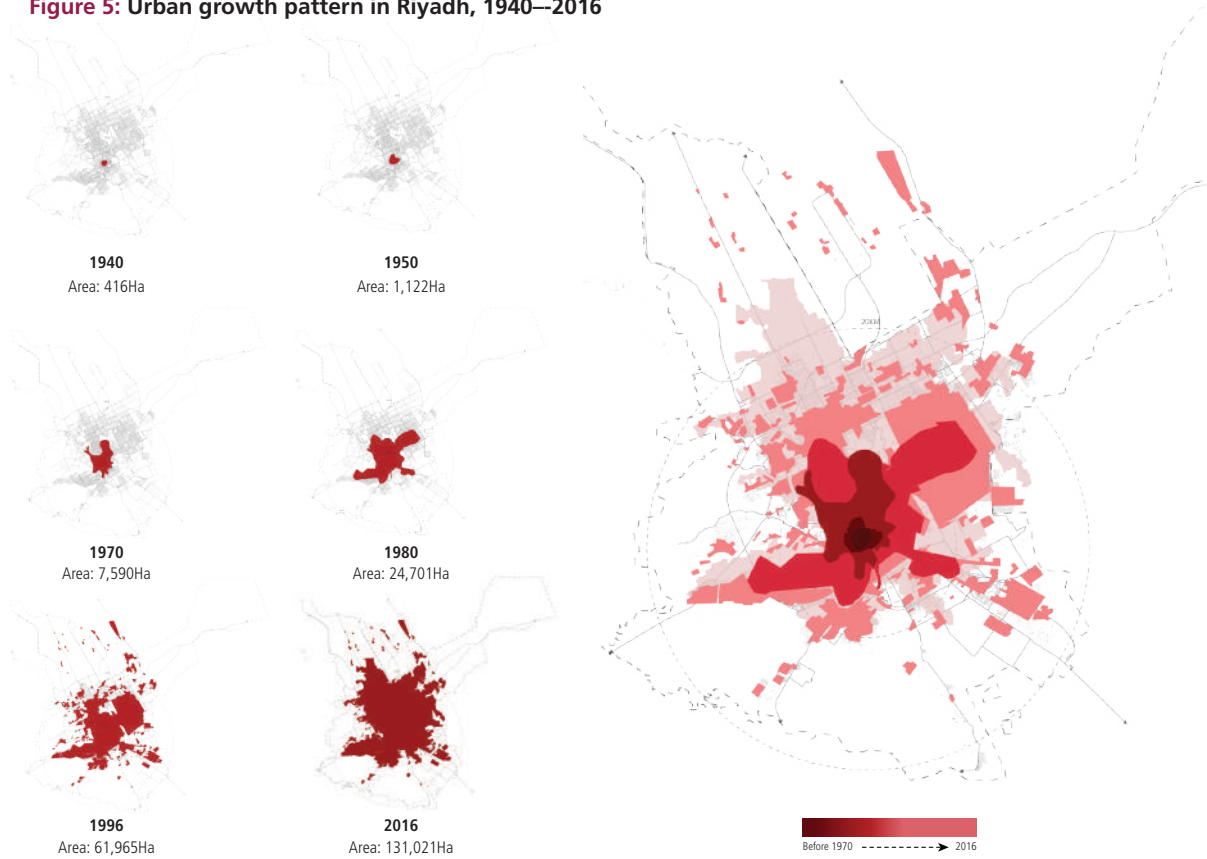


Excessive sprawling is one of the most pervasive challenges of Saudi cities. The physical area of these cities is expanding faster than their population.

Riyadh's built-up area grew at an average annual rate of

9.4%

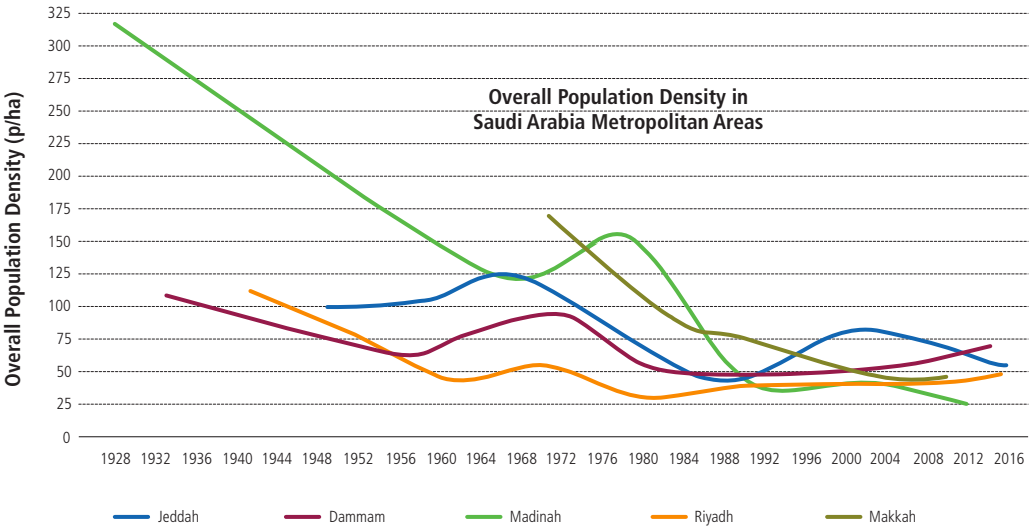
Figure 5: Urban growth pattern in Riyadh, 1940–2016



Source: City Profiles, Future Saudi Cities Program



Figure 6: Urban sprawl and declining overall population density in Saudi metropolitans



Note: Urban areas are calculated based on city plans provided from the urban planning directorates.

Other challenges include managing urban growth, poor urban governance, unsustainable consumption levels of water and energy, and increasing levels of greenhouse gas emissions. Carbon dioxide emissions per capita in Saudi Arabia increased from 0.7 tons in 1960 to about 19 tons in 2015, representing an increase of 2,786 per cent.

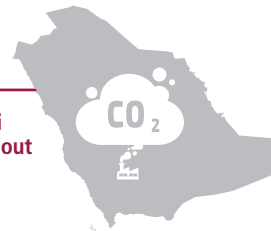
Many Saudi cities face a shortage of affordable housing. While there is a surplus of high-rental housing in most cities, there is a persistent shortage of affordable housing units for lower-

and middle-income households. Affordable housing is needed, urgently. Such housing should be in consonance with the socioeconomic characteristics of Saudis and in line with Vision 2030 that aims to increase homeownership from 47 per cent in 2016 to 52 per cent by 2020.

Moreover, people under 25 years old account for 50.8 per cent of the Saudi population and face distinct challenges. For example, entry-level housing is scarce as are employment opportunities. Cities must cater to the needs and rights of urban youth.

Carbon dioxide emissions per capita in Saudi Arabia increased from 0.7 tons in 1960 to about 19 tons in 2015, representing an increase of

2,786%



Recommendations

Some of the recommendations for overcoming these challenges can be highlighted at three levels:

At the national level: It is important to correct the imbalances in the regional distribution of total and urban population; to increase development reach and support the rural economy; and to plan for the expected increase in urban population, especially in the large urban agglomerations. It is recommended that future development plans direct and spread growth activities, mainly mining and tourism, to rural and frontier regions of high potential for progress.

It is along these lines that the kingdom announced, in 2017, several megaprojects for a more balanced and integrated economic and regional development. These include the NEOM, Red Sea, Al-Gidya, Al Faisaliyah, and New Taif projects; developments in Al-Ula, Diriyah, and Jeddah Downtown. These schemes are expected to diversify the economy by attracting

investments in tourism and industry, and redirect population and migration away from the large metropolitan areas.

At the regional level: It is important to reduce the concentration of population within regions, and to minimize urban primacy through investment in intermediate cities, small towns and village clusters as articulated in the National Spatial Strategy 2030. Intermediate and small cities in Saudi Arabia could be made more attractive by improving transport, communication and other infrastructure, as well as improving municipal governance, including decentralization and strengthening of local democracy and civil society. Strengthening the economic base of rural settlements is crucial in making them more attractive and enhancing their linkages with urban areas.



At the local level: For large agglomerations, future population increase should be accommodated within the spatial extent of these cities by means of densification and planned city infills, with no further expansion of urban area. For the next 20-30 years, urban densification should be the most appropriate urban growth management approach for large agglomerations. This would allow for the efficient utilization of existing infrastructure and services. For intermediate and small cities, their anticipated population increase could be accommodated through densification or planned city infills and planned city expansion programmes.

In terms of curbing current consumption patterns, Saudi Arabia should adopt a sustainable urban development policy. Feasible use of urban land, including the control of urban sprawl through

densification and compact development, water governance, and renewal energy are crucial for the sustainable development of Saudi cities.

To meet the challenge of providing affordable housing in urban areas, building regulations should conform with the socioeconomic characteristics of the Saudi population; sustainability principles; and Saudi Vision 2030, which aims to increase homeownership.

The challenge of urban governance could in part be dealt with by increasing community participation, accountability and transparency, and enhancing the institutional capacity of Saudi cities. This would have to be done inclusively, with the participation of women, youth and people of diverse socioeconomic backgrounds.





An aerial photograph of a city, likely in the Middle East, showing a multi-lane highway with traffic, several high-rise buildings, and a large parking lot. The city is built on a hillside, with a large, light-colored building complex in the background. The foreground shows a sandy area and a small soccer field.

CHAPTER 2

Toward sustainable urban transport and mobility

Summary

The high level of urbanization in Saudi Arabia places huge demands on its transport system. Increasingly, Saudi's cities face enormous pressures as they seek to meet the increasing demand for mobility and investment in passenger and freight transport. In Riyadh, as with other Saudi cities, the absence of a viable mass transit system implies that the existing road networks and infrastructure cannot sufficiently absorb the increase portended by the rapid pace of urbanization.

While the current level of transport interconnectivity reflects the investment in transport infrastructure over several decades, and the importance and role of Riyadh and Jeddah as economic powerhouses; Makkah and Madinah as holy cities; the existing level of infrastructure is not commensurate with the demands of a rapidly urbanizing country.

In recent years, cities such as Jeddah and Riyadh have introduced various forms of mass transit due to increasing car ownership and traffic

congestion, especially after the law banning women from driving was repealed in June 2018. Thus, meeting the present and future transport needs of the growing urban population is a key requirement for many Saudi cities. High mobility coupled with continued increase in private car ownership presents a key challenge as more land is used to support transport systems. In Riyadh, roads account for 40 per cent of the city's construction costs. Road transport alone accounts for about 90 per cent of energy consumption within the transport sector. Inhabitants of major Saudi cities heavily rely on private transportation to move around their city,

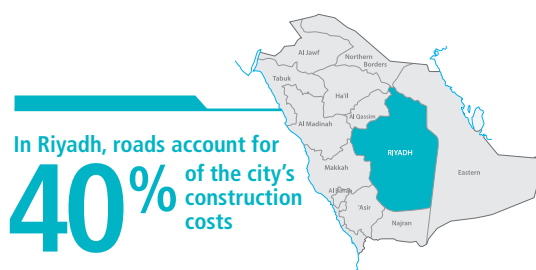
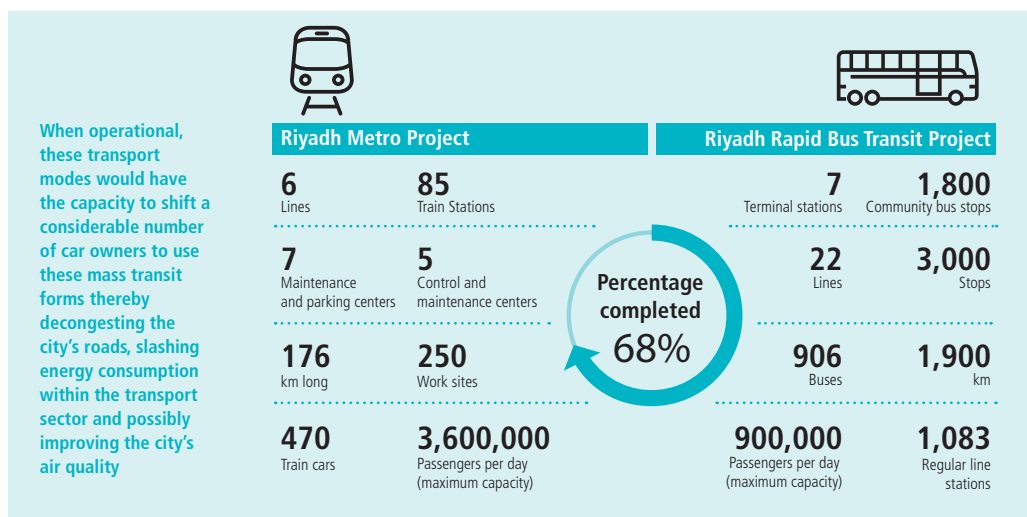


Figure 7: Intercity connectivity in Saudi Arabia



Source: City Profiles, Future Saudi Cities Program

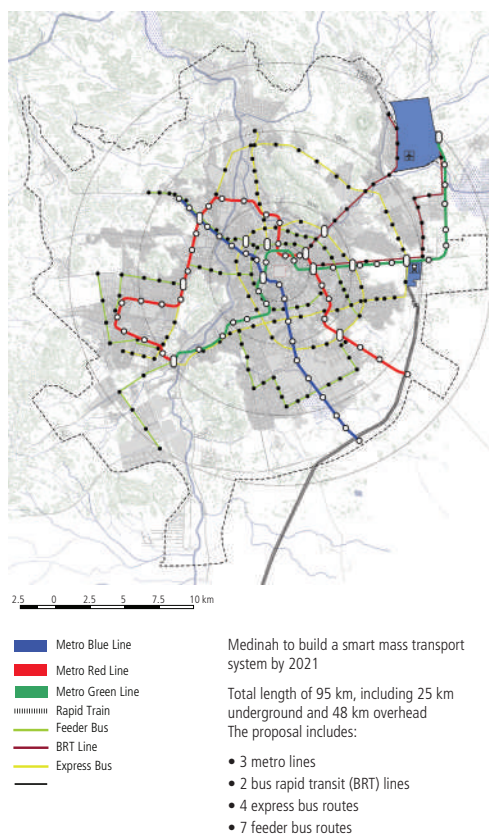
Figure 8: The King Abdulaziz Project for Public Transport in Riyadh



with many households owning more than one car. In Jeddah, 86 per cent of all trips are taken by car, 10 per cent by taxi and less than 2 per cent by bus. This reliance on cars places women and youth at a disadvantage in society, as global trends show that they are more dependent on public than private transport.

Saudi Arabia is keen on upgrading its infrastructure and transport system, with over US\$14.4 billion (SAR 54 billion) allocated for this purpose in 2018. Over the past decade, more than US\$106 billion (SAR 400 billion) have been spent on transport infrastructure, resulting in the construction of a robust transport network covering all parts of the country.

Figure 9: Proposed transport network for Medinah



In 2018, Saudi Arabia allocated

US\$14.4 billion
for upgrading its infrastructure and transport system

Source: City Profiles, Future Saudi Cities Program

Figure 10: Proposed transport network for Riyadh



LEGEND

- Metro Lines
- Metro Stations
- BRT Routes
- Bus Routes
- Proposed Ring Road

Public transit is currently under rapid expansion across the city. There are **six metro lines** currently under construction, simultaneously.

A Bus Rapid Transit (BRT) network with three lines as well as a revamped and organized bus network.

Source: City Profiles, Future Saudi Cities Program



The transport sector is a major consumer of energy in the region and contributes to **23%** of total carbon dioxide emissions

More recently the development of intercity rail links has been prioritized, including a 946-km cross-country line linking Jeddah, Riyadh and Dammam; a Medina-Jeddah-Mecca high-capacity link that would facilitate the movement of pilgrims during the Hajj; and an Eastern Region link between Dammam and Jubail Industrial City.

The dominance of motorization as a mode of transport in the country is demonstrated by the 12 million cars on its roads, which partly explains increased greenhouse emissions in Saudi cities. Several factors such as policies that maintain fuel subsidies and low car registration fees, as well as planning practices that encourage low-density development, all drive increasing motorization.

The transport sector represents a major consumer of energy in the region and a primary contributor to carbon dioxide discharge, accounting for 23 per cent of emissions of which 85 per cent is attributed to inland transport.

Saudi Arabia is among the world's top 10 countries with the highest traffic fatality rates, with road crashes costing up to 6 per cent of the country's gross domestic product. Road traffic accident is the single largest cause of mortality and long-term disability among Saudi's aged 16-30 years.

Recommendations

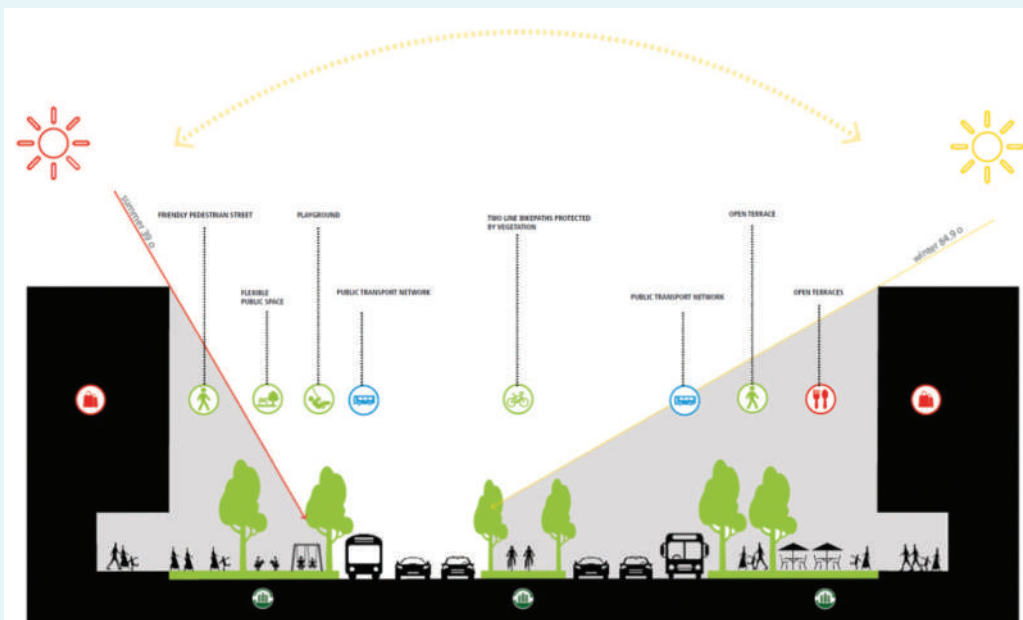
Given their potential to reconfigure trade corridors and dramatically improve public transport, rail and metro projects should represent a key priority for Saudi Arabia, especially as it seeks to diversify its economy. A well-integrated public transport system could also boost economic efficiency, provide employment and bring business to underserved areas.

Effective transport networks that incorporate public transit have been recommended for all cities. Their implementation would reduce the carbon footprint of cities, make them more livable by easing commute and transport needs, and increase urban accessibility. With high levels of urbanization and a high auto-dependency culture, high-capacity public transport systems that focus on mass transit would be crucial in achieving sustainable urban mobility. However, the mere

presence of public transport—the number of formal buses and rail—fails to paint a complete picture. A well-designed integrated transport network should be accessible, affordable, equitable, safe, reliable, low carbon, comfortable, efficient and convenient for all users—especially for women, youth, persons with disabilities and other minority groups.

Increasingly, there are indications that the establishment of rail and bus rapid transit solutions in major Saudi cities are bound to generate significant land use changes, rapid growth and rising incomes. This presupposes there is supportive planning and zoning, public-sector leveraging and risk sharing, a commitment to travel-demand management to remove any built-in incentives to car use, and the capacity to manage the land-use shifts that are put into

Figure 11: An example of the “complete street” typical section elaborated for Dammam City Profile



Source: City Profiles, Future Saudi Cities Program

motion by transport infrastructure investments. Saudi planners should consider how people and goods are moved between transport hubs and their final destinations, which is termed as the “first and last mile” of any trip.

To make public transport sustainable, a new business model for funding should be developed. The Saudi Arabian Public Transport Company is exploring new sources of long-term financing at significantly lower costs for ongoing and proposed urban transport projects. Notably, however, alternative and sustainable funding options should include cost-cutting through reprioritizing

networks, optimizing the choice of transport mode for corridors, and improving the operational speed of vehicles in service. To increase revenue, the company is promoting a public transport culture through media and community awareness campaigns, whereby people are informed of its benefits. Other innovative financing mechanisms for sustainable transport infrastructure and operations that could be adopted include parking levies, fuel pricing and road user charges.

Well-functioning institutions and high levels of political support are indispensable for establishing and maintaining quality infrastructure and services



for urban mobility in Saudi Arabia. However, decision-making in the transport sector is fragmented between the ministries of Interior, of Municipal and Rural Affairs, of Transport, and of Commerce and Industry; this is due to overlapping institutional responsibilities. To attend to these institutional, regulatory and governance concerns and ensure coordinated action, the identification of a lead authority to provide strategic direction in decision-making is paramount.

Given the high rates of traffic accidents in Saudi cities, road safety must be continuously improved and more funds allocated. Under the

National Transformation Program (NTP) 2020, the government allocated US\$800,000 for road safety improvement. A significant part of this amount is for sophisticated traffic management and intelligent transport system technologies to improve traffic flow and security for travelers. The responsibility for traffic safety is jointly shared by the Ministry of Interior, which oversees and regulates the vehicle fleet and traffic regulations; the ministries of Transport, and of Municipal and Rural Affairs, which build and maintain the road infrastructure with all its traffic engineering elements, such as road signage.





CHAPTER 3

Environmental sustainability and green city development in Saudi Arabia



Summary

Environmental concerns are taking centre stage in Saudi Arabia. The kingdom has made remarkable progress in strengthening sustainability in pursuit of Vision 2030 and targets in the NTP 2020. However, the environmental challenges remain persistent due to institutional policies which for decades have encouraged increased domestic consumption across sectors such as oil. The prevailing development patterns, characterized by the undermining of sustainability, have driven society towards excessive increase in production and consumption, causing the depletion of natural resources and devastating the socioeconomic environment.

Widespread overconsumption calls for a paradigm shift, which strikes a balance between preserving natural resources, reducing environmental degradation, and enhancing economic growth. Chapter 3 illustrates the symbiotic relationship between urbanization and environment in Saudi Arabia, alongside offering solutions to challenges.



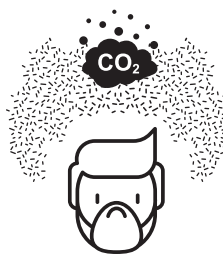
Water

Water scarcity presents an immense challenge for the kingdom. Groundwater levels are rapidly declining in the country and over 50 per cent of the water supplied comes from non-renewable sedimentary and deep rock aquifers. A multifaceted approach is required to provide water and encourage its prudent use. In this respect, implementation of the planned Integrated Water Resources Management will be vital.



Waste

Like many countries, Saudi Arabia is groaning under the weight of its household and industrial waste. On average, each Saudi generates 1.5kg to 1.8kg of waste daily. With a population of approximately 33 million, Saudi's cities produce 15 million tons per year of municipal solid waste, most of which ends up in landfills. Several initiatives are under way as part of the NTP, tackling the importance of the recycling issue; the integrated strategy for waste management in Riyadh city; the initiative to recycle food waste in the Eastern Region; and the initiative for waste management in Jubail Industrial City. The challenge is to scale up these initiatives to increase the current national recycling rate accounted to be 10–15 per cent.



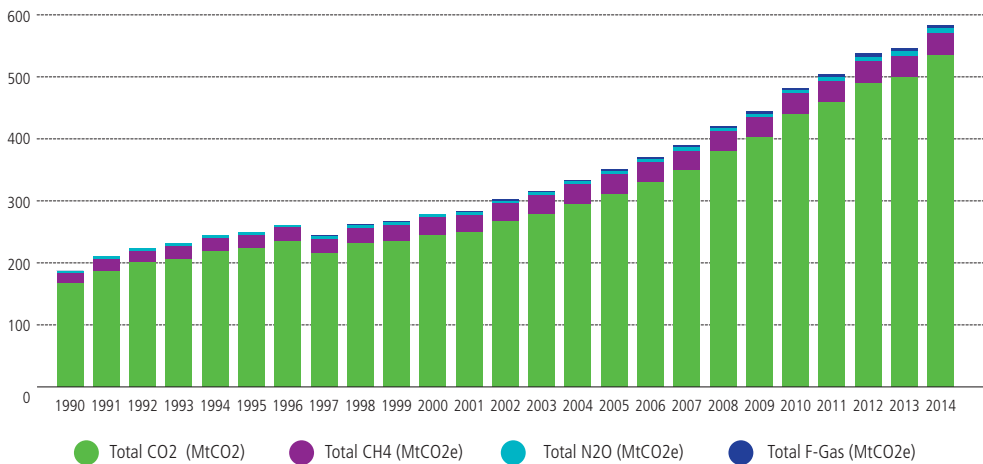
Air Pollution

Air pollution is a global problem, the damaging impacts of which also affect Saudi Arabia. Some of the kingdom's cities are characterized by declining air quality and its associated impacts. Riyadh and Al Jubail, for instance, are ranked amongst the world's heavily polluted cities. Weak coordination between ministries and poor implementation of comprehensive plans related to curbing air pollution is often a hindrance to eliminating the menace.



Oil refinery by frontier with Saudi Arabia, Aqaba, Jordan

Figure 12: Total greenhouse gas (GHG) emissions, Saudi Arabia



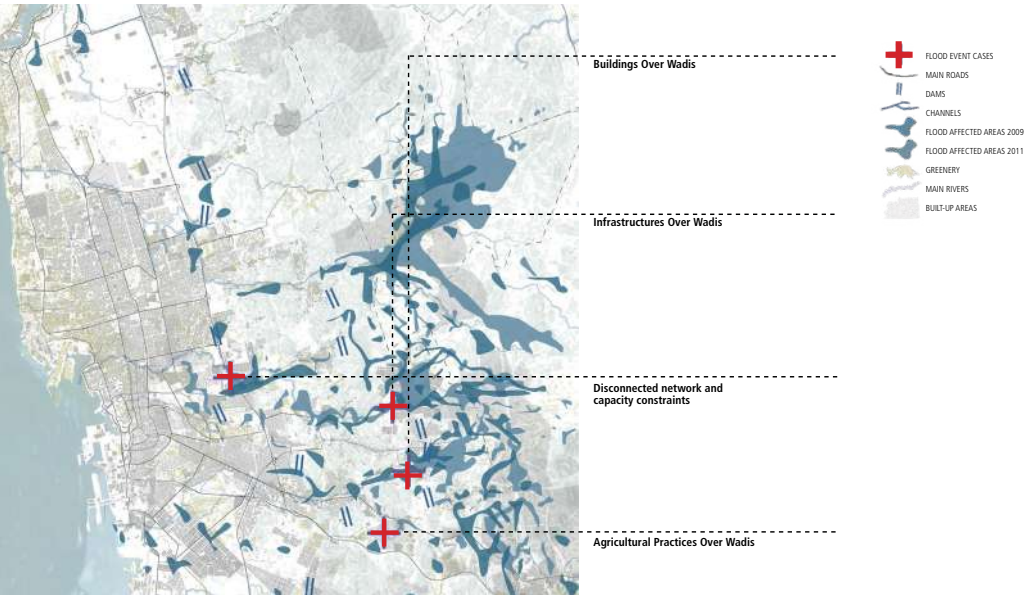
Source: World Resources Institute, CAIT Climate Data Explorer, 2017

Climate Change

Closely related to air pollution is climate change. This phenomenon and environmental degradation affect the quality of life, and threatens economic and social stability. Some Saudi cities are experiencing environmental degradation induced by climate change. Besides the increasing

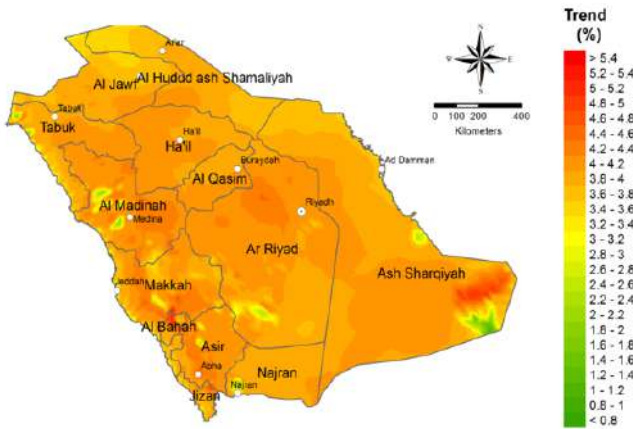
frequency and severity of heatwaves observed across the country, some Saudi cities have been susceptible to severe or unprecedented flooding —particularly coastal cities such as Dammam, Jubail and Jeddah. In 2009 and 2011, for instance, Jeddah registered flash floods that were regarded as the kingdom’s worst in 30 years.

Figure 13: Massive flood events in Jeddah, 2009 and 2011



Source: City Profiles, Future Saudi Cities Program

Figure 14: Mean annual temperature trend (2030–2080)



Source: UNFCCC (2016)

Renewable Energy

Alongside increased urban growth, the demand for electricity in the Saudi Arabia is swelling. Estimates show that the country's energy needs are growing by about 8 per cent annually and are expected to reach 120 gigawatts (GW) per year. Presently, energy is primarily drawn from

crude oil. Under the NTP, the kingdom has set a target to produce 3.45 GW of renewable energy by 2020, thus raising its share to 4 per cent of total energy generated. In the same vein, Vision 2030 targets the production of 9.5 GW of renewable energy by 2030, equivalent to 10 per cent of the total energy produced in the country.

Recommendations

Water Scarcity: There is an urgent need for more effective sustainable water management coupled with increasing the water supply from renewable sources. In this regard, the nation needs to conserve, recycle and reuse all available freshwater, harvest rain, reduce underground leakage, and improve policies on water consumption to prevent its unsustainable use.

Waste Management: Given that landfills generate methane, which is more hazardous to the environment and populations than carbon dioxide, there is a need to invest in strategies which minimize waste as the nation strives to reduce it to zero level. These strategies would include improved waste collection approaches; a drive toward behavioural change; increased recycling projects to deter the creation of more landfill sites; and implementation of strict laws regarding waste management. Furthermore, municipal waste could be used to generate energy.

In pursuit of Vision 2030, Saudi Arabia's efforts to monitor air quality are intensifying, as exemplified by plans to develop and enforce environmental standards and regulations. Examples include General Authority for Meteorology and Environment imposing legally binding limits on air quality on various industries, and the alignment of pollution levels with international benchmarks. To reduce air pollution in cities, authorities need to expand air quality monitoring stations at the national level, monitor emission sources, as well as integrate air quality and source emission data with the central database system, and regularly conduct ambient air quality surveys.

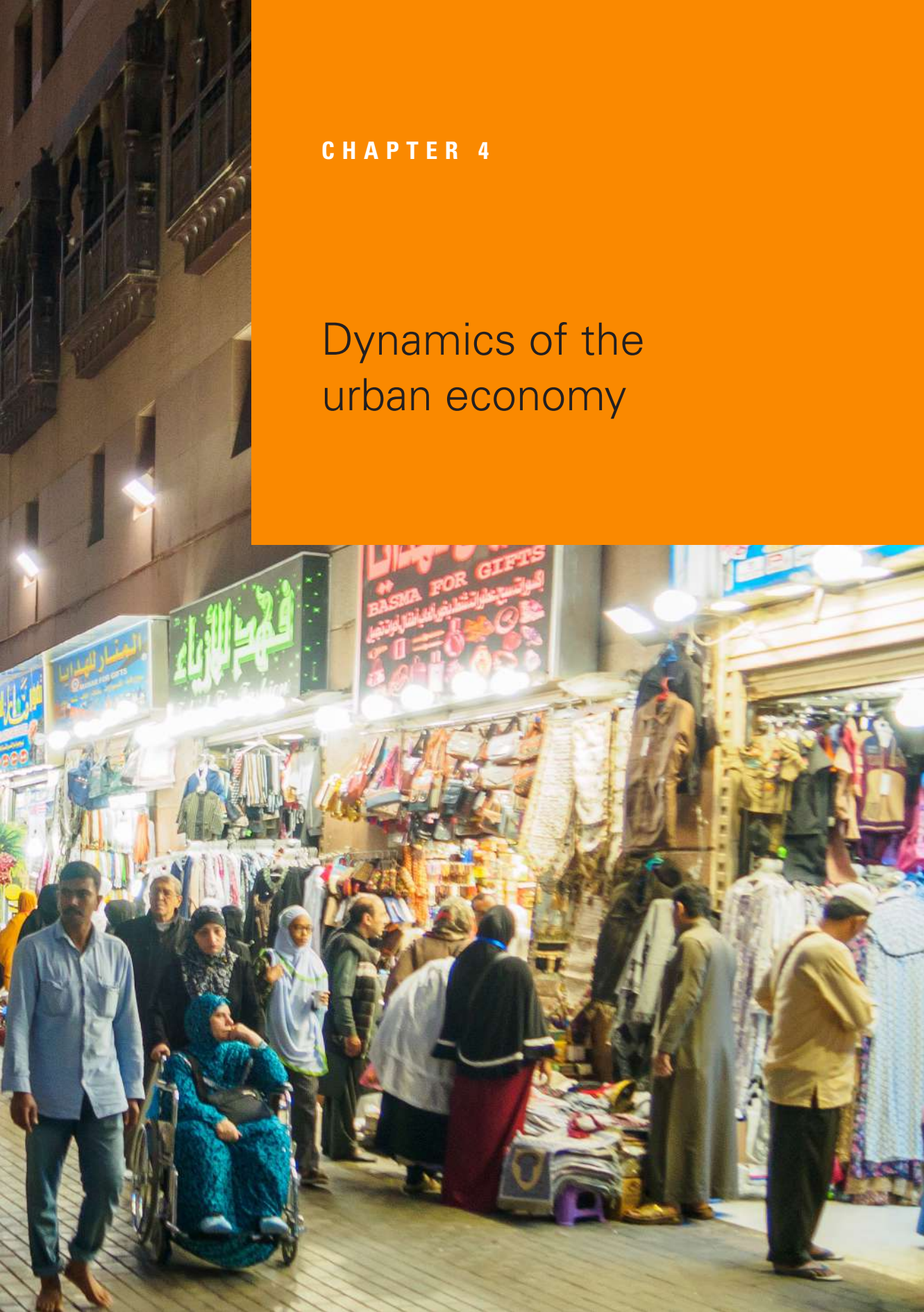
Given the increased vulnerability of the nation's cities due to climatic changes, Saudi Arabia ratified the Kyoto Protocol at the United Nations Framework Convention on Climate Change in 2016. Included in the kingdom's Intended Nationally Determined Contribution under the Convention, for reductions in greenhouse gas emissions, are set measures to develop and implement Integrated Coastal Zone Management plans that would protect coastal roads, residential areas, industrial complexes, desalination plants and seaports, among other infrastructure. The nation should further focus on the restoration of water bodies through marine ecological risk assessments, strengthening of urban resilience in line with the Sendai Framework, and integrating sector-based climate change adaptation into urban environments—particularly with respect to health, infrastructure, transport and energy.

To meet energy requirements without the use of crude oil, Saudi Arabia should harness its enormous renewable energy potential, especially in solar and wind. Moreover, it should establish smart cities through investments in renewable energy, carbon-saving technology and advanced green building techniques.



CHAPTER 4

Dynamics of the urban economy

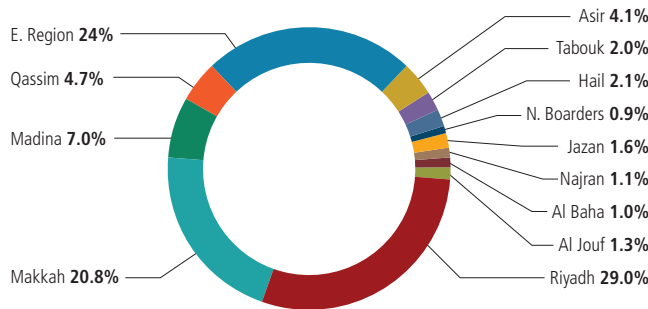


Summary

The urban economy in Saudi Arabia is dominated by four major urban agglomerations: Riyadh, Jeddah, Makkah, and Dammam. The three regions where these cities are located account for nearly three quarters of the country's GDP: Riyadh Region (29 per cent), Eastern Region (24 per cent) and Makkah Region (20.8 per cent). The four cities, together, account for over half of national employment: Riyadh (34.9 per cent), Jeddah (16.9 per cent), Dammam (14.8 per cent).

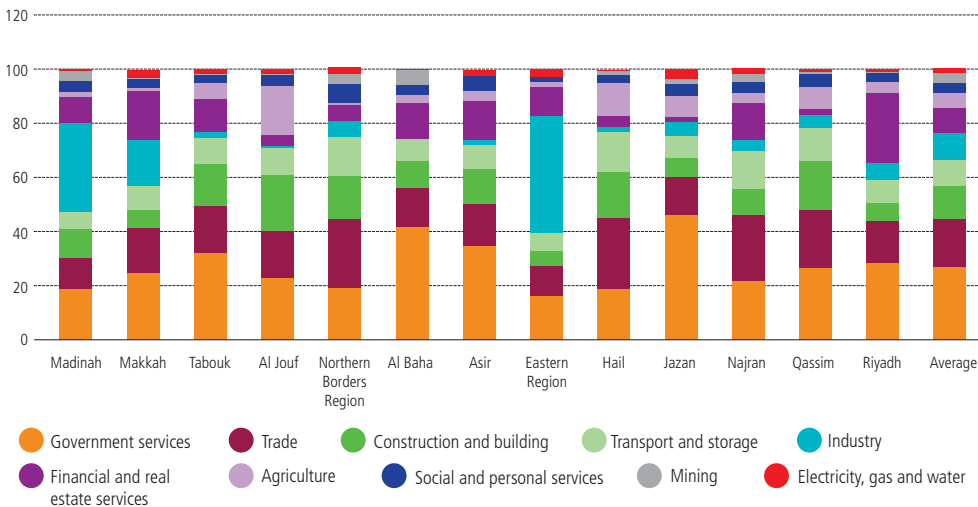
In an urban landscape comprising 17 cities, three quarters of government funding for productive industries have gone to Riyadh (36 per cent), Jeddah (29 per cent) and Dammam (21 per cent). Riyadh, for instance, is home to nearly half (46 per cent) of the productive industries in the urban city system and about one third (34 per cent) of the productive industry in the country, which represents 42 per cent of jobs in productive industry in the urban city system and 30 per cent in the kingdom. (see Figure 17).

Figure 15: GDP contribution of the regions to the overall GDP of the kingdom (without crude oil and gas), 2012



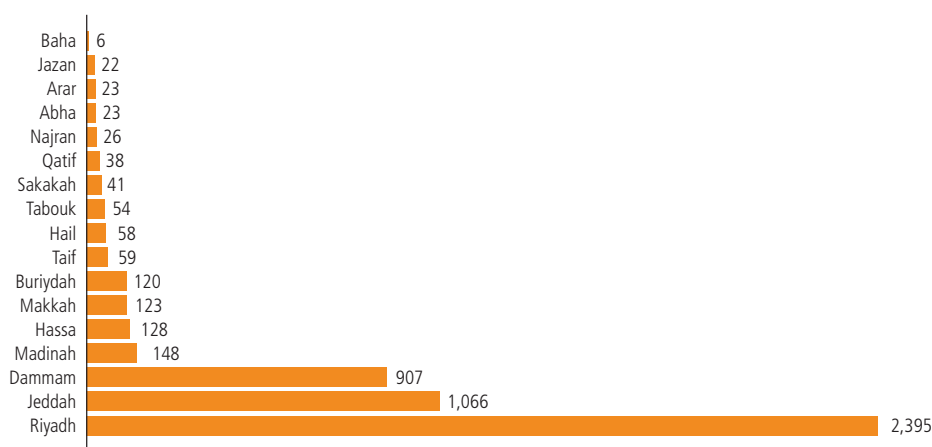
Source: City Profiles, Future Saudi Cities Program

Figure 16: Economic contribution to GDP in regions (without crude oil and gas), 2012



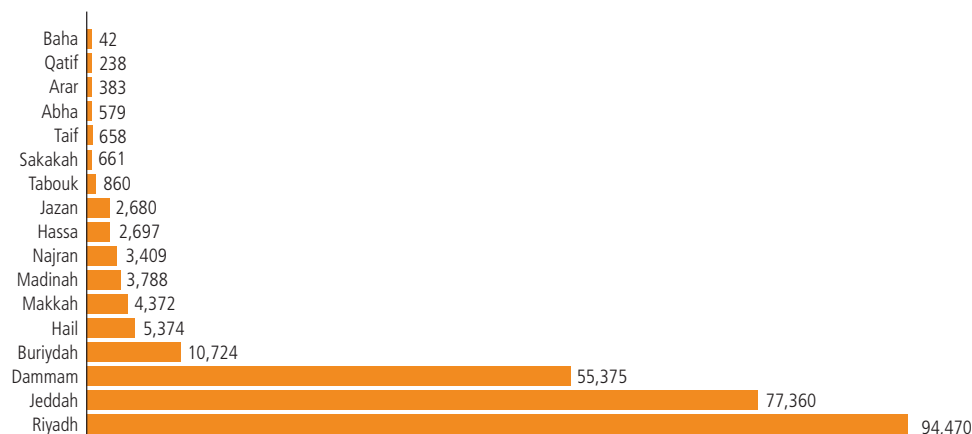
Source: City Profiles, Future Saudi Cities Program

Figure 17: Number of productive industries in 17 Saudi cities



Source: Saudi Industrial Development Fund, 2016

Figure 18: Government funding in productive industries in 17 Saudi cities, 2015 (million SAR)



Source: Saudi Industrial Development Fund, 2016.

Currently, the country is characterized by a low labour force participation rate (only 56 per cent of the working age population is economically active), a relatively higher unemployment rate among Saudi nationals (12 per cent), and a higher youth unemployment rate (24 per cent). The current share of Saudi women in the total work force is 17 per cent, which under the NTP is targeted to reach 24 per cent by 2020. Despite representing half of

the total population, youth account for only 17 per cent of the workforce, which indicates a clear opportunity for improving productivity. Additionally, there is a huge disparity between average earnings in the public and the private sectors in all cities. Public sector workers on average earn nearly six times more than those in the private sector. Moreover, the stability that comes with public sector jobs makes them the preferred option for the urban youth.

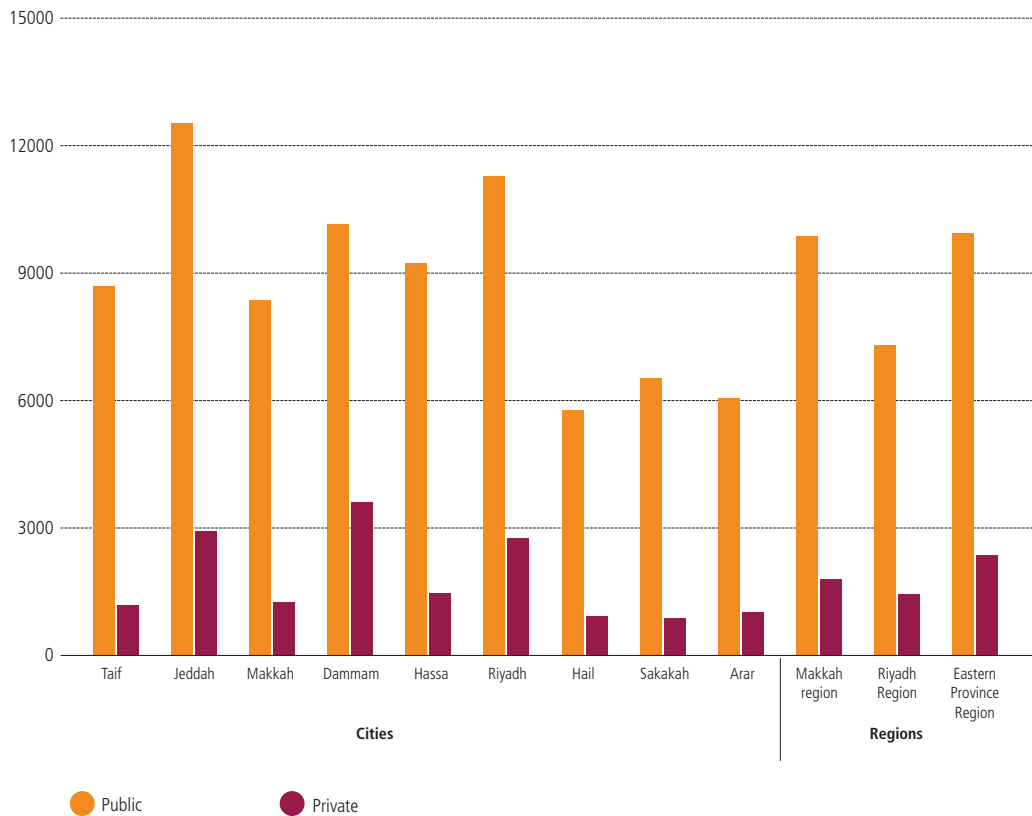
Box 1: Increasing women's participation in the economy

Vision 2030 aims to raise women's stature as an effective player at all levels. It sets a separate strategic objective to increase women's participation in the labour market. Several women have been appointed to top-level positions in the private sector. One noteworthy progress has been the steady rise in women's participation in the labour market from 12 per cent in 2009. This share is expected to grow to 25 per cent by 2020. Saudi Arabia is also inching closer to achieve its goal of gender parity of wages. Other notable achievements and targets include:

- Allowing women to pursue business without consent of guardian
- Ensuring that women account for 20 per cent of private sector's investments in 2017
- 127,000 new commercial registrations issued for women in 2017
- Creation of 450,000 jobs for women

Source: Kingdom of Saudi Arabia (2018) *Towards Saudi Arabia's Sustainable Tomorrow: First Voluntary National Review 2018 - 1439*

Figure 19: Average salaries in selected cities and regions, 2016



Source: General Organization for Social Insurance (GOSI), 2016

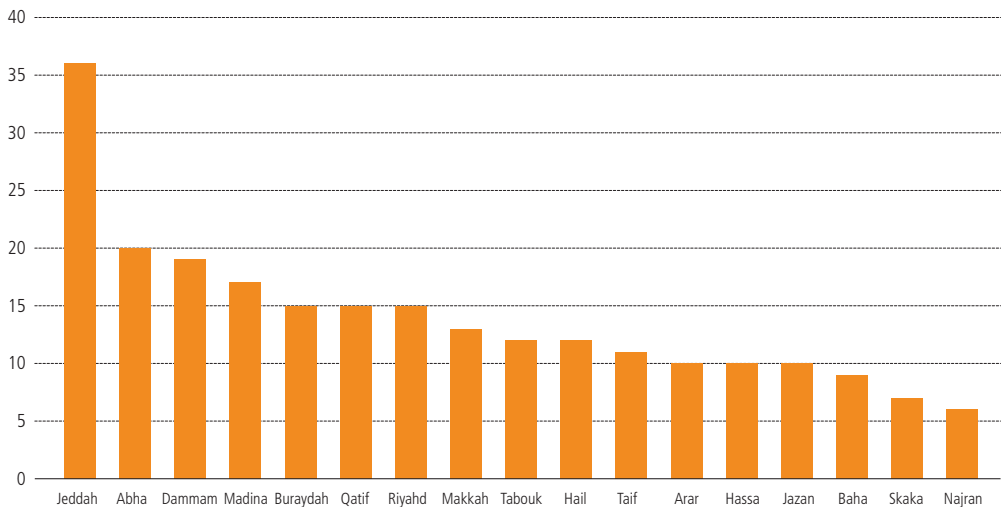
Saudi Arabia depends on expatriate labour in certain domains because of the severe skills shortage among nationals in these occupations. Moreover, many private sector employers prefer to hire migrant workers who cost less than Saudi nationals. Migrants comprise over three-quarters of the labour force. Cities that have reported the largest concentration of expatriates include Jeddah (52 per cent of the population), Makkah (47 per cent), Riyadh (42 per cent) and Dammam (41 per cent). The dependency on migrant workers is likely to persist in most cities, especially with the current ambitious plans envisaged in Vision 2030.

Financing urban development continues to be a major challenge as cities are still largely dependent on transfers from the central government. The current financial system reflects the high level of centralization prevalent in the country's overall governance system, which is discussed in the next

section. On average, the transfers from the central government account for more than three quarters of local government budgets. The ratio of own-source revenue to budget has been highest in the port city of Jeddah (36 per cent) and lowest in Najran (6 per cent); see Figure 20.

The high rate of Saudi family formation, the growing number of expatriate workers, the existence of undeveloped “white lands”, as well as the rate of growth of private sector activities in cities have somewhat outpaced the provision of housing, thereby contributing to shortages in affordable housing in urban areas. The dynamics of the housing market in urban areas has also resulted in an imbalance. This is illustrated by the segmentation of Saudi housing market, which has shortage of housing for lower- and middle-income households, and a concurrent surplus of luxury housing.

Figure 20: Direct revenue as a share of total budgets of Amanahs (municipalities)



Source: Ministry of Finance, 2015/2016

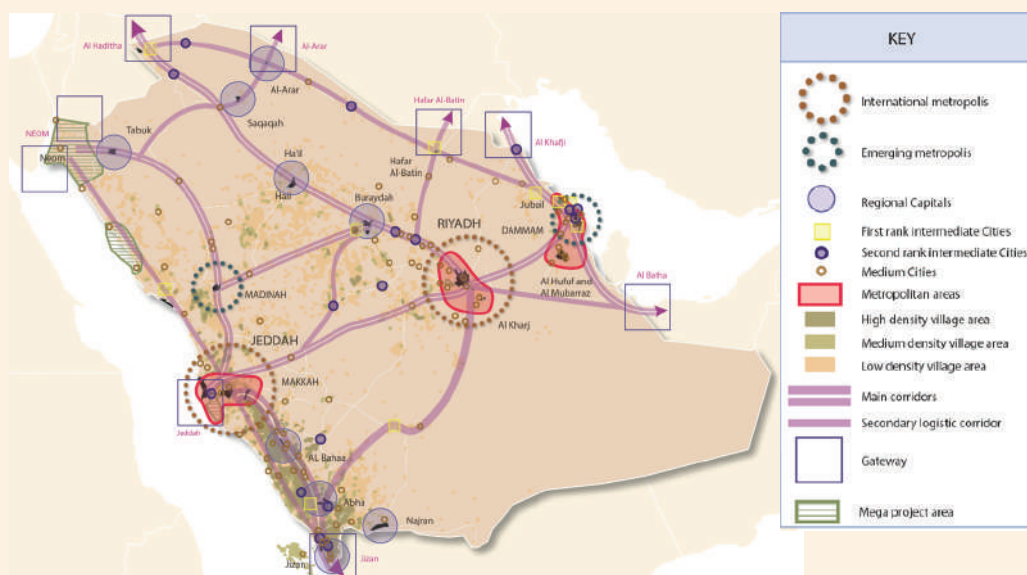
Recommendations

Productive capacities: Meeting the ambitious targets of Saudi Vision 2030 and the NTP 2020 depend on reinforcing and expanding non-oil urban economic activities and on enhancing the economic role of secondary and tertiary cities. Whilst there should be a targeted focus on the functional efficiency of its major cities, it is equally important for the nation to enhance productive capacities across the urban system by providing incentives for private investment outside the leading regions. Indeed, future urban migrations will predominantly continue to these leading cities unless a major effort is made to improve the economic competitiveness of secondary cities or divert newly created employment to new growth poles. Redressing economic imbalances will, therefore, require a re-examination of national public investment priorities to improve the economic competitiveness of secondary cities. This calls for the alignment of economic and other strategic

infrastructure across cities within the kingdom to ensure improved productivity, investment flows and employment creation.

Even as the nation continues to restructure the economic cities as well as create special zones, the success of its current economic diversification strategy would depend on its ability to increase the productivity of the non-oil sectors and of its cities as drivers of the economy. A higher labour participation is essential. This would reduce fiscal pressures associated with welfare support, mitigate against the consequences of long-term unemployment (such as psychosocial well-being, poor health outcomes), and improve social inclusion and equity. Likewise, in its pursuit for “Saudization”, the kingdom needs to correct the existing mismatches between the skills and expectations, especially of the large cohort of young Saudis entering the job market and the needs of private sector employers.

Figure 21: Proposed corridors in the national spatial structure



Source: Kingdom of Saudi Arabia (2018a) *Moving Forward: National Spatial Strategy 2030 — Green Paper*. Riyadh

Box 2: Enhancing Saudi Arabia's competitiveness through economic cities

Economic cities are greenfield development projects being implemented as part of the Saudi Arabia vision to diversify from dependency on the oil as well as create employment and boost foreign direct investment. These cities present great opportunities for growing investments in new sectors such as emerging technologies, leisure and tourism activities that would further enhance the country's competitiveness.

The cities are being developed by the private sector with support from the government. They are planned on "smart city" and sustainable development principles, and they provide a gateway toward a green economy. Being modern, these cities are envisaged to meet the emerging socioeconomic needs in the country; for instance, growing the knowledge economy, which would enhance productivity and competitiveness in the kingdom particularly in equipping younger Saudis with professional skills required to implement the nation's economic development strategy.

King Abdullah Economic City: Located along the coast of the Red Sea, north of Jeddah. The focus of the city includes port and logistics (logistics hub), light industry, and services. It occupies 168 million square metres and the estimated investment size is US\$27 billion. It is projected to host two million people and create one million jobs.

Prince Abdulaziz bin Musaid Economic City: Located in Ha'il on the crossroads of trade and transportation routes of the Middle East. The city is a mixed-use development whose main economic focus is logistics (transport and logistics hub), agribusiness, minerals, and construction material. It occupies 156 million square metres and its investment size is US\$8 billion. It is expected to create 55,000 new jobs and host 80,000 people.

The Knowledge Economic City: Located in Madinah and will have access to Makkah and Jeddah via the Haramain High Speed Railway. It focuses on knowledge-based industries and services. It occupies 4.8 million square metres at an investment of US\$7 billion. It is expected to create 20,000 new jobs and host 200,000 people.

Jazan Economic City: Located on the Red Sea coast in the south-western region of the nation. Its economic focus includes heavy industries, agribusiness, energy and labour-intensive industries. It occupies 100 million square metres and an estimated investment of US\$27 billion. It is expected to create 500,000 new jobs and host 250,000 people.

King Abdullah Financial District: Located north of Riyadh, the development occupies 1.6 million square metres and its estimated investments size is US\$10 billion.

Al Faisaliyah City: Located in the western part of Makkah, Al Faisaliyah City is expected to provide one million jobs in different sectors including health, education, technology and services. The project covers 2,450 square kilometres.

NEOM city: Located in Tabuk, it is a futuristic city expected to occupy 26,500 square kilometres. The estimated investment is US\$500 billion. The city is expected to be a major commercial location in the Middle East.

Qiddiya Project: Located 40 km away from downtown Riyadh. It is expected to be the world's largest entertainment city that will satisfy the recreational, social, and cultural needs of the nation's current and next

generation. The project occupies 334 square kilometres.

Municipal Finance: The rapid pace of the country's urban growth calls for rapid, adaptive and innovative finance mechanisms by cities to meet the demand for public infrastructure and services. This would include introducing a range of charges, fees and taxes (such as betterment levies, congestion fees), as well as implementing special development-based mechanisms (such as floor area ratio increment fees, impact fees, and transfer of development rights). It is also essential to embrace the delivery of many urban development projects through public-private partnership. This would be an effective tool for financing public services and infrastructure.

Housing: Housing should not be seen just as a peripheral activity but a central force in sound economic development. It is necessary to link economic effects of housing investments in cities to the national macroeconomic goals and objectives. This linkage would ensure that housing provision at least keeps pace with macroeconomic policy decisions or urban private sector activities. This is important in minimizing shortages in affordable housing and infrastructure for any segment of urban society. The government should also continue implementing its policies that stimulate the real estate market such as diversifying real estate financing sources and making mortgage financing more accessible and affordable.



CHAPTER 5

Managing urban transformation in Saudi Arabia: The role of urban governance



Summary

An assessment of the governance structure in Saudi Arabia reveals certain features that may impede sustainable and inclusive urban development. These are discussed with respect to five main aspects of urban governance: institutional structures; legal framework; planning system; finance; and municipal capacity and local management. Public participation, another important component of governance, is a cross-cutting issue that is to be integrated within all the aspects.

There is excessive centralization in the framework for policy formulation and in planning and

management of development (see Figure 20 for governance structure). Such centralization tends to create unnecessary bureaucracy through long channels of communication and decision-making, thereby limiting the ability to attend promptly to development issues intended to meet public needs and aspirations. The creation of multiple government agencies to manage development activities have also been noted to result in ill-defined distributions of responsibilities between different levels of government, leading to overlaps in mandates and policies that contradict rather than complement each other. Additionally, public participation is limited as decision-making occurs within formal government institutional structures.

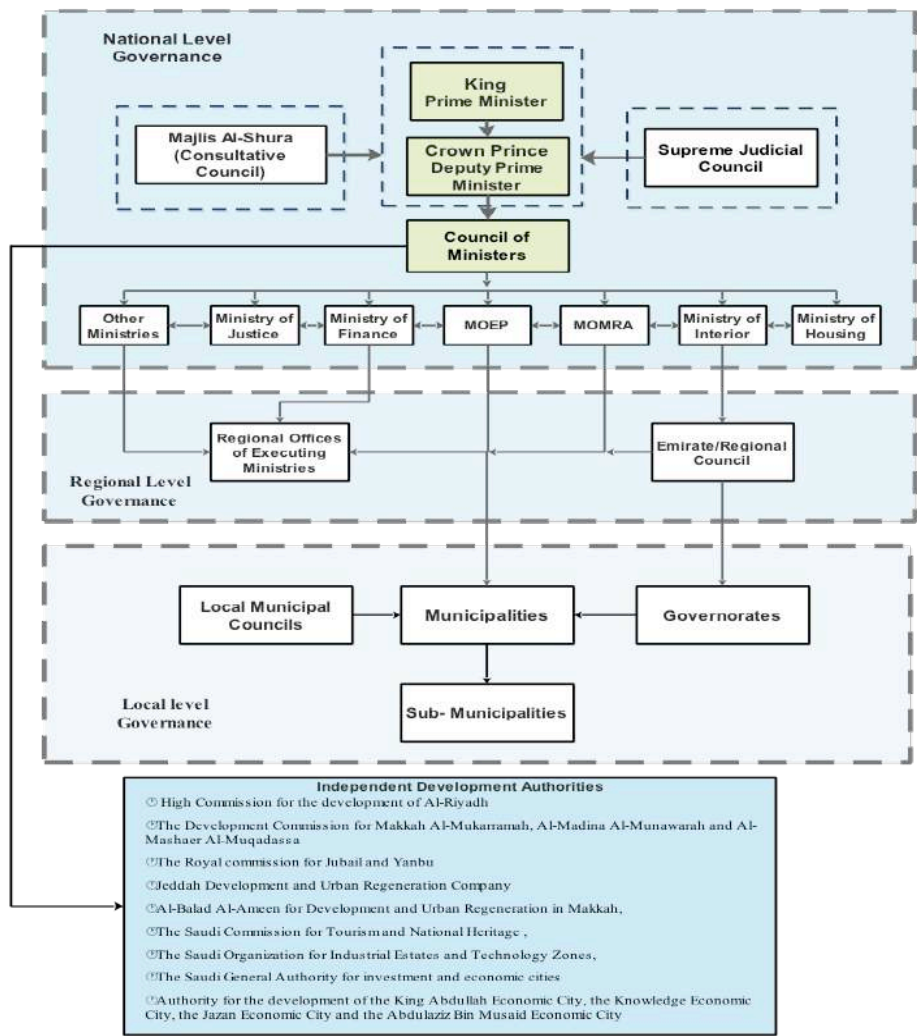
Table 2: Planning responsibilities of key ministries and independent national planning authorities

Ministry	Responsibility
Ministry of Economy & Planning (MoEP)	Prepares the 5-year development plans that guide development action
Ministry of Interior (Mol)	Oversees provinces and governorates, with a focus on security
Ministry of Municipal and Rural Affairs (MoMRA)	Planning development of all cities and towns Formulating planning regulations Formulating the National Spatial Strategy Urban services provision Land administration
Ministry of Housing (MoH)	Develops housing strategies Administers land grants Administers interest free loans
Independent National Planning Authorities ¹	Prepare and approve all plans for the regions Supervision of all sectoral plans, including the strategic projects Urban regeneration projects for inner cities and historical areas Prepare land-use regulations Review and approve land subdivisions

¹ Royal Decree No 475 of 22 May 2018, supported by the Ministry of Economy

Source: Al-Helmi (2015); Ajaj (2013)

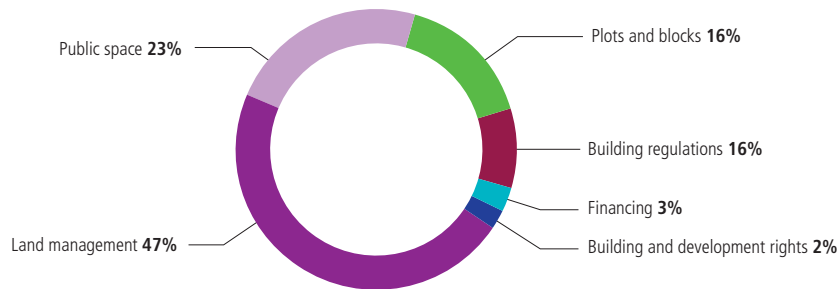
Figure 22: Structure of the governance system in Saudi Arabia



Source: Ajaj (2013); Al-Hemi (2015); UN-Habitat (2016)

Figure 23: The number of laws on the main themes of urban planning legislation

Urban laws consist of over 500 pieces of legislation with most of these being regulated at the lowest level (circulars) lacking inviolable authoritative force



Source: Future Saudi Cities Program

The assessment of the existing law-making and legal framework reveals shortcomings that require remedial action. The lack of codification of the legal system including judicial precedence has created uncertainty about the scope and content of laws. This has also led to varied application of laws within cities due to challenges related to their accessibility by various *Amanahs* (see Figures 23 and 24).

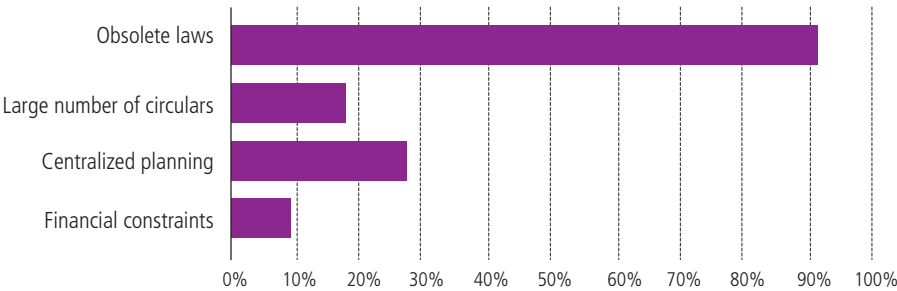
The current spatial planning governance structure is based on an orthodox linear hierarchy of plans. However, the linear hierarchy is generally ineffective because the different levels of plans are not linked through clear processes or mutual accountability. In addition, different elements of the planning hierarchy are dominated by different institutions without adequate coordination mechanisms. Further challenges exist because numerous actors have the power or the ability to cut across the hierarchy and introduce contradictory initiatives. Additionally, there are significant ambiguities in the nature, content and intended function of plans at different levels. Finally, the institutional capacity and relative responsiveness of the system

to local need are too weak to manage such an administratively complex system.

The funding system is centralized, with the national government making the allocations for management and development action to local governments through yearly line item budgeting. However, the decline in oil prices, the population increase, and rising unemployment are affecting the ability of the national government to fund its development activities. Funding is also inadequate to support the activities of municipal authorities, which have very limited ways of generating local revenue.

Saudi municipalities are dealing with rapid urban growth, which is one of the world's fastest. This has engendered urban sprawl, which increases the cost of providing public infrastructure. Moreover, there is fragmentation of responsibilities due to lack of a decisive role in local management. Municipality activities are controlled by and dependent on the Ministry of Municipal and Rural Affairs that prepares the plans for local implementation. Municipalities only have autonomy to prepare and implement action plans.

Figure 24: Key challenges of the Planning Law Framework according to Amanahs



- Cities and Regions depend on obsolete plans and legislation
- Scattered planning regulations and access to the laws
- Lack of decentralization of planning functions
- Lack of coordination among various authorities and overlapping roles between institutions
- Financial constraints
- Public participation and stakeholder engagement in the planning process is on an ad hoc basis and does not influence the plan

Source: Future Saudi Cities Program

Recommendations

Institutional Structures: There is a need for decentralization to facilitate independent and innovative solutions to urban social problems at the lower levels of government. This should entail the transfer of power, authority and functions from the central to the local government as well as fiscal decentralization to enable local governments to raise their own revenue. There should also be improvements in structures for horizontal and vertical coordination to ensure that planning and action is always concerted between the different levels and arms of government. It is equally important to open avenues for actors, including the private and voluntary sectors and the general community to participate in decisions regarding projects that affect them.

Legal Framework: There is a need to consolidate urban legislation to support development intervention, along with review, update and modernization of these laws to make them relevant to the current development situation. This should also entail rethinking the law-making process to limit the number of actors. The mere existence of the laws in Saudi Arabia would not guarantee sustainable urban development as the laws must be functionally effective, that is they must be precise in achieving their intended results, clear, consistent and simple to understand. The legal framework also needs to enshrine an acceptable mode of public participation in public decision-making to foster equality and inclusion. The Current Planning Act initiative that is currently taking place as part of the NTP is one of the major steps towards implementing this recommendation.

Planning System: There should be a revision of the governance framework through jurisdictional decentralization to focus, effectively, on community needs as supported by the New Urban Agenda. The agenda specifies that territorial urban design and planning processes should be led by subnational and local governments. It is necessary to implement participatory planning processes, and to have clear strategies that would enhance horizontal and vertical coordination in the management of development action. It is also essential to improve regional and local staffing expertise as well as introduce monitoring mechanisms, such as performance indicators, to assess the level of achievement of regional planning projects.

Finance: Fiscal decentralization is necessary to enable innovative financing mechanisms (highlighted in the previous section), improve efficiency, increase competition and stimulate economic growth.

Municipal Capacity and Local Management:

There is need for strengthening municipal institutions with power to undertake and monitor local management functions that would also imply enabling them to generate independent sources of funding. This includes public-private partnerships with the potential to engage important economic players who, in turn, create more employment opportunities and foster economic prosperity of the nation's cities.



CHAPTER 6

Implementing the New Urban Agenda in Saudi Arabia



Summary

Chapter 6 illustrates how the New Urban Agenda (NUA) and the urban components of SDGs can support the Saudi Arabia's efforts for sustainable development through a dedicated action framework that encapsulates national urban policies; a system of institutions, regulations and governance; urban and territorial planning; the urban economy and municipal finance; and local implementation in the form of planned city infill.

Saudi Arabia's first Voluntary National Review (VNR) presented during the High-Level Meeting in New York showed the country's experience and situation with the adaptation and implementation of the Sustainable Development Agenda, highlighting major achievements, challenges and lessons learned. It equally showed the country's commitments to achieving the SDGs. The early implementation of the 2030 Agenda has greatly benefitted from the launching, in early 2016, of the Saudi Vision 2030, which outlines a clear path for building a thriving society and economy. The Saudi VNR report has shown, repeatedly, a significant degree of alignment between the SDGs and Vision 2030 is already in place. Many of the SDGs and targets are incorporated into

the Saudi Vision. Hence, the SDGs amplify key priorities of the national development agenda in the three dimensions of social, economic, and environmental sustainability.

The chapter highlights aspects that are crucial to implementing the NUA including placing housing at the centre of urban policies and at the centre of urban development; ensuring environmental sustainability via green city development; and continuously "reinventing" urban planning and design to tackle emerging urban challenges. It identifies specific and concrete initiatives, which need to be undertaken to ensure the effective implementation of the NUA in Saudi Arabia (see Box 3). This includes recognizing the effective policies, strategies, practices that have facilitated success or progress towards the realization of the commitments set out in the NUA. Important considerations are placed on issues of monitoring and evaluation for evidence-based policies, and capacity development and enhancement in the implementation of the NUA. In this context, capacity development applies to giving visibility to the role of training institutions and technological innovations, in addition to the more established meaning of strengthening institutions of governance.

Box 3: Elements necessary for a successful implementation of the New Urban Agenda

Given that the NUA is a resource for all levels of government, including civil society organizations and the private sector, the coordination of the following elements is necessary, to ensure successful implementation:

- Sectoral national urban policies to promote an efficient territorial development pattern
- National and local urban legislation and regulations to promote local economic development and manage growth
- Urban planning and design interventions to achieve an efficient and socially equitable development pattern
- Participatory municipal governance to ensure the efficient and fair implementation of local regulations



Overall, the kingdom has an expanding spectrum of emerging opportunities which, coupled with the strengths of the economy, provide the country with the necessary impetus to build its capacity, competitiveness, and efficient and harmonious territorial development. Already, the country has been an active participant in global discussions on climate change mitigation solutions. At the heart of this lies an opportunity, if managed well, of forming compact, resilient, inclusive and resource-efficient cities that are environmentally sustainable and with higher prospects of a greener way to live.

Decentralization is slowly progressing with new municipal council structures. In 2005 and 2011, the government embarked on a new initiative towards decentralization in which municipal council structures were established. However, from a total of 1,212 members, only 506 of the councils were elected. Another round followed in 2015, in which Saudi women could vote and run for elective posts, winning 20 out of 2,000 local positions (see Box 4). The government is promoting women's standing in development through capacity development and harnessing, which is demonstrated by such measures as well as the rising number of Saudi women in the workforce.

Box 4: Increasing women's participation for sustainable development

Saudi Arabia is promoting women's standing in development through capacity development and harnessing. Vision 2030 dedicates important efforts for enablement of women in community and economic development, as well as in raising women's stature as effective players at all levels. Saudi Arabia has taken several measures that aim to enable women to hold leading positions in the government. Earlier on, women became members of the Shura Council (Consultative Council) with a Royal Order issued in 2013 to reserve 20 per cent of the Council's seats for female members. Women were also elected to municipal board councils and several women were appointed to top-level positions in the government and private sectors. They hold several leading positions, such as vice minister, chairperson of Councils and deputy minister, and a first-ever appointment of a woman as Dean of Student Affairs, Taif University.

Source: Kingdom of Saudi Arabia (2018) Towards Saudi Arabia's Sustainable Tomorrow: First Voluntary National Review 2018–1439

Figure 25: Connecting SDGs and the New Urban Agenda



However, as noted in previous chapters, emerging challenges, coupled with inherent weaknesses, pose obstacles on the path of the NUA's implementation in Saudi Arabia. These include, local authorities' limited political and fiscal power, lack of access to development finance, low levels of institutional capacity, absence of robust multilevel government cooperation and integration, the inability to attract or be part of strong multi-stakeholder partnerships, as well as the dynamics triggered by rapid demographic and spatial growth for which public institutions are unable to manage effectively. Additionally, despite considerable progress in recent years, complete and reliable city-level, social, economic and spatial

data is often difficult to find, except for Saudi Arabia's larger agglomerations.

Although the role of local governments has been expanded to include the preparation of subdivision plans, the establishment and enforcement of zoning regulations, and the issuance of building permits, the national government continues to retain significant control over local governments. The municipalities have very limited authority to raise revenue. This report also shows that urban planning remains largely centralized in the Ministry of Municipal and Rural Affairs.

Recommendations

Considering the above-mentioned challenges, and building up on proposals advanced in previous sections, this chapter recommends the following:

Continue the adaptation of the NUA and the Sustainable Development Goals to the realities of the country through further alignment of national programmes, plans and strategies with global development goals, targets and indicators.

It is necessary to have a clearer articulation and coding of laws and regulations to ensure that the different levels of government have the authority to discharge their responsibilities. The government already acknowledges the need to go beyond sectoral policies and consider cooperation between different spheres of government and non-state actors, fostering a balanced distribution of powers, capacities and resources including the revision of legislative, regulatory and fiscal frameworks.

Saudi Arabia's national urban governance frameworks needs, therefore, to enable effective multilevel governance through clear legal and institutional structures, based on the principles of subsidiarity and decentralization (respect for local self-government, clear sharing of powers and responsibilities) as well as an adequate intergovernmental allocation of financial resources. The allocation of resources to subnational governments also needs to be coupled with equalization mechanisms to reduce inequalities between regions, metropolitan areas and intermediary cities, with the aim of building synergies and complementarities between cities and territories.

Increased stakeholder participation would help provide political commitment and maximize long-term investments, as well as strengthen urban planning and design for the public good. To enable better inclusion, articulation of the national urban strategy should enshrine acceptable modes of public participation in the decision-making

process. In this regard, the government could combine top-down and bottom-up engagement in urban policy formulation and implementation.

Saudi cities require long-term and integrated urban and territorial planning and design to optimize the spatial dimension of cities to deliver the positive outcomes of urbanization. The cities must make the best use of the economies of agglomeration, higher residential densities, enhanced mobility demand with sustainable transport solutions, and strengthen social interactions. For this to be realized, it is crucial to build capacities related to urban planning and governance, budgeting, public asset management, digital-era governance, data gathering and engagement with stakeholders. Capacity-building actions need to go beyond conventional training and stimulate learning in the short, medium and long term.

Besides capacity development, evidence-based policies with sound monitoring mechanisms are critical for sustainable urban development. A national urban data system is, therefore, critical to reinforce and expand the use of urban indicators and for the review of the New Urban Agenda and the Sustainable Development Goals. As part of the formulation and implementation of the National Spatial Strategy, demographic, socioeconomic and environmental information should be developed at the regional scale. Additionally, open data and use of new technologies are key for meaningful citizenry engagement and improved service delivery. Led by the Ministry of Municipalities and Rural Affairs, municipalities in Saudi Arabia have, in recent years, customized the City Prosperity Initiative framework to national priorities and defined a representative sample of 17 cities to assist in creating a national baseline and data collection plan that could support urban planning and management at the national, regional and local levels (see Figure 26).

Figure 26: The City Prosperity Initiative as platform for urban data

The City Prosperity Initiative as platform for urban data, developed to formulate evidence-based monitoring for cities.

This platform answers to the 6 Dimensions of Urban Prosperity:

