

JAZAN City Profile





Future Saudi Cities Programme City Profiles Series: **Jazan**

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JAZAN جازان



CITY PROFILE



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INTRODUCTION



1.1 About the Future Saudi Cities Programme

The Future Saudi Cities Programme is a joint programme developed by the Saudi Ministry of Urban and Rural Affairs and UN-Habitat, implemented in close cooperation with the municipalities of 17 major Saudi cities. The cities have been selected based on their different population sizes, geographic distribution, and a range of criteria based on capacities and economic potential to create a more balanced regional development among the cities of Saudi Arabia. The chosen cities include Riyadh, Makkah, Jeddah, Taif, Madinah, Tabuk, Dammam, Qatif, Al-Ahsa, Abha, Najran, Jazan, Hael, Arar, Al Baha, Buraidah, and Skaka.

After undertaking city-level reviews in the 17 cities, five cities were chosen as a representative cross-section, for in-depth analysis. The city-level reviews considered the linkages between urban and territorial planning by examining the city within the relational context of its sub-region and exploring specific issues at the neighbourhood level. These reviews, when referenced with CPI reports and validation processes in the Rapid Planning Studio workshops, were used to extrapolate strong, evidence-based conclusions that relate to the planning system as a whole.

Applied research, with a strong focus on action-oriented conclusions, was used to collect evidence to diagnose the strengths and weaknesses of the planning system and local planning practices in each city. The methodology utilised design tests and demonstration projects as avenues to apply and analyse potential solutions, before concluding on policy recommendations.

UN-Habitat's three-pronged approach considers spatial planning in relation to legal and institutional frameworks, in addition to financial mechanisms. In this way, success criteria for the sustainable implementation of a spatial plan should include flexible but enforceable rules and regulations, in addition to a financing strategy and projections.

As a pragmatic explication of this approach, three local demonstration projects, representing essential elements of a strengthened and improved planning system, have been developed. These were elaborated to include schematic designs and feasibility studies, that can later be transformed into implementation plans. Such implementation plans are projected to be undertaken by MoMRA, in collaboration with other partners in the Kingdom.

In order to facilitate this process, a joint "FSCP Urban Lab" was created as a vehicle to strengthen endogenous capacities and to develop tailored tools, and instruments. The Lab, composed of international expertise from the planning, legal and economy branches of UN-Habitat Nairobi office, has been working with Saudi-based staff in the UN-Habitat Riyadh office (selected by MoMRA), to enhance knowledge exchange and to apply a learning-by-doing method to the programme.

As such, all 17 cities have been simultaneously engaged in a capacity-building strategy that included foundational learning, and 'on the job' training, culminating in Saudi-specific advanced training. This training was based on the planning-system conclusions and recommendations, that the FSCP produced. Thus, the Urban Lab functions as a tool to generate evidence whilst additionally strengthening capacities through a process of learning-by-doing.

1.2 Saudi Initiatives for Sustainable Urban Development

The Saudi Government, along with the respective Ministries, and in line with a larger country-wide transformation process, has made several efforts aimed at the sustainable development of its growing cities. These contributions vary from plans at the national level, like the National Spatial Strategy (NSS), to strategies and plans at the regional level, cutting across various sectors towards realising Vision 2030. The FSCP recognises these efforts as positive, supporting Vision 2030 goals to realise a sustainable urban environment for the Kingdom of Saudi Arabia. The FSCP acknowledges and builds upon the current tools, plans, and strategies as part of a comprehensive assessment and suggests variations and improvements where appropriate.

1.3 Objectives of the City Profile Report

1.3.1 Scope of the City Profile

The city-profile combines MoMRA's new strategy, with a review of existing studies, plans, and strategic documents, such as the review of the Kingdom of Saudi Arabia (KSA) National Spatial Strategy (NSS) to identify and address the root causes of problematic conditions outlined in the preliminary findings. The report acknowledged low uptake of the NSS by regions, utilities and ministries, as a key weakness. The issue of horizontal (sectors) and vertical (scales) integration is thus a key challenge that the FSCP aims to address going forward.

Policy recommendations for improving urban planning frameworks and practice shall be structured through a multiscalar lens, considering the city as a continuum in the urban fabric, that should grow from the neighbourhood to the wider city-region, whilst influenced by dynamics and regulations at the national and supranational levels. This ensures that policy recommendations for these cities do not operate in isolation from the city's envisioned role in the administrative region and the national system of cities.

1.3.2 Objectives of the City Profile

The City Profile Report brings together diagnostic urban analysis and aligns that analysis with the UN-Habitat sustainable development framework and the Saudi Vision



2030. It performs as a thinking tool that constitutes together an assessment tool and guidance for the current and future planning of the city, whilst defining a clear strategy for sustainable development.

The definition of an ad-hoc strategy is rooted in an evidencebased approach to the issues, building upon both primary and secondary data collection and analysis. The profile, as well as the programme as a whole, uses the data collected by the City Prosperity Initiative (CPI), to identify significant trends and challenges at the city level. This evidence is then combined with reviews of existing planning documents, and crossreferenced with multi-scalar GIS spatial analysis, to define the above-mentioned ad-hoc strategy.

1.4 City Profile Methodology

1.4.1 Evidence-based input approach

The evidence-based planning approach creates a deeper understanding of the spatial dynamics of the urban area, by combining and comparing urban datasets such as demographics, density, land use, natural features, and accessibility analysis. The evidence (data) is reflected in the form of indicators that can be compared with best practice standards and benchmarks for sustainable urban development. Not only does this provide a clear perspective on the main developmental issues, but it also quantifies the projected effect of future development proposals on the indicators applied in the analysis.

The programme recognises that the methodology, on which policy recommendations guiding improvements and adjustments in the planning system are based, needs to be evidence-based. For this purpose, different methods were integrated to first provide the necessary body of evidence on which to build an understanding, and full assessment of issues before making recommendations for the respective cities.

The elements constituting the evidence-based approach are primarily constituted of the following:

- Reviews of existing policy documents and plans;
- CPI reports;
- GIS spatial analysis.

All of these elements are utilised in a cross-scalar diagnostic methodology that incorporates quantitative and qualitative evidence. The method used to generate evidence-based policy recommendations, which develops capacities and engages



Satellite picture of south- west Saudi Arabia at night

stakeholders in all 17 cities, provides conclusions derived from both top-down and bottom-up approaches, cross-cutting all scales of planning.

By analysing how the structures of spatial, socio-environmental and economic issues interact at different scales of influence, the diagnostic methodology moves from the national to the neighbourhood scale, tracking the interdependencies within the city's physical development patterns, and seeking to decrypt the reasons behind them.

1.4.2 The reviews

Several reviews of existing policy documents and plans were undertaken with the purpose of a) extracting information useful to the understanding of the context, and the city itself, and b) assessing their contents based on three criteria: content relevance, process integration, and effectiveness. The reviews focused on assessing the:

- National Spatial Strategy;
- Jazan Regional Plan;
- Jazan Structural Plan;
- Directive Plan for Jazan;
- Jazan Local Plan.

1.4.3 The City Prosperity Index assessment report

The City Prosperity Index is made up of six dimensions that serve to define targets and goals that can support the formulation of evidence-based policies. These include the definition of city-visions and long-term plans that are both ambitious and measurable. The six dimensions are:

- Productivity;
- Infrastructure;
- Quality of life;
- Equity and inclusion;
- Environmental sustainability;
- Governance and legislation.

These dimensions have been assumed as guiding principles in the spatial assessment of Jazan. There are ten detailed spatial indicators at the FSCP city profile level that link into the 72 flexible indicators of the CPI assessment.

1.4.4 The GIS spatial analysis

The spatial reflection of the above indicators highlights detailed patterns of development and the interactions and dynamics associated with movement, densities, and land use within the urban system.

This process enables a dynamic understanding of the physical expressions of weaknesses and strengths in the urban system and the main issues to be addressed. The effect of proposals for future development can also be assessed by use of the same indicators.







2.1 The Region's Role in the KSA

2.1.1 Historical background

Jazan, formerly known as Al Tihamah, is a port town in the Southwestern extremity of the Kingdom of Saudi Arabia, approximately 60 kilometres North of the Yemen border. The city is the principal centre in the Tihamah Coastal Plain and capital of the Jazan Region. It is a major export and shipping hub for the region, serving the Kingdom's Southern territories and connecting it to Yemen. Jazan is home to several archeological sites from various cultural periods.

2.1.2 Geography and location

The Jazan Region is located on the coast of the Red Sea, in the Southwestern territory of the Kingdom of Saudi Arabia. Jazan City is the regional headquarters for the Jazan Region. The city lies approximately 200 kilometres South of Abha, 60 kilometres North of the Yemen border and approximately 950 kilometres Southwest of Riyadh, the Kingdom's capital.

The Jazan Region is biodiverse, boasting breathtaking scenery of the green, flora covered Faifa Mountains. The Beesh Beach, with gentle waves breaking at the shoreline and the beautiful beaches and exquisitely blended coral reefs of the Farasan Islands has made the area a top tourist destination.

2.1.3 Demographic background

According to the estimated figures of the General Authority for Statistics, the total population of the Region was approximately 1,560,000 in 2017, representing an estimated 4.8% of the Kingdom's total population (32,550,000). Of this figure, 1,210,000 are Saudi nationals, and 360,000 are non-Saudis. A breakdown of the regional population places the Sabia' governorate as the largest population catchment, with 16.8% of the regional total, followed by the Samtah Governorate with 14.8%, the Abu Arish Governorate with 14.4%, the Jazan Governorate with 11.6%, the Ahad Al Masareha Governorate with 8.1%, the Bisch Governorate with 5.7%, the Al Aredah Governorate with 5.6%, the Damdh Governorate with 5.3%, the Al Darb Governorate with 5.1%, and finally the Al Edabi Governorate with 4.4%.¹ In 2010 the city of Jazan in had an estimated population of 136,007 people.

2.1.4 Socio-economic background

The Jazan Region is rich in archeological sites, and has a beautiful coastline and mountainous vistas. During the early 20th century, the city of Jazan and the surrounding areas were major sites for pearl fishing which fostered trade until the outbreak of World War I, during which time trade in Jazan decreased noticeably and shifted to Al Hudaydah, in Yemen.



Fig. 1. Population distribution, growth rate and urban areas within the Kingdom of Saudi Arabia

International Airport (Passengers 9,567,000);

Jeddah: King Abdulaziz

(Passengers 30,000,000);

International Airport

Riyadh: King Khalid

International Airport (Passengers 22,300,000):

Madinah: Prince

International Airport

(Passengers 6,500,000);

Buraidah: Prince Navef

(Capacity 550,000).

Airport

Bin Abdulaziz International

Qassim-Majma'a -Riyadh Makkah-Jeddah-Madinah

King Abdul Aziz Port, Dammam

King Fahad Industrial Port Jubail

Jubail Commercial Port

Yanbu Commercial Port Ras Al Khair Port Ras Tanura Port

Ras Al Khair Port

Ras Tanura Port

Red Sea Ports: Jeddah Islamic Port King Fahd Industrial Port

Mohammad Bin Abdulaziz



Fig. 2. Regional Gross Domestic Product and economic sector contribution



Fig. 3. Transport connectivity between Saudi cities

The location of Jazan is considered the most important factor for economic growth and development in the Kingdom. Given its proximity to Yemen, most of the trade movement between the Kingdom and Yemen takes place here. The Jazan Port, is the third most active sea port in the Kingdom as a result of its strategic location. The region hosts the Jazan Economic City (recently renamed as Jazan City for Primary and Downstream Investments), located 60 kilometres North of the Jazan City. This is an important mega project for the Kingdom, intended to concentrate the region's industrial and economic activities in a specifically designated centre. This region's importance is expected to rise when the proposed Jazan Economic City has completed implementation of the proposed industrial facilities, with the addition of a new airport and a new port. The region's beach, marine life and mountainous terrain have further potential to influence a more developed tourism strategy.

GDP

The Gross Domestic Product of the Jazan Region reached approximately 23.3 billion Riyals in 2012, which amounted to an estimated 0.9% of total GDP of the Kingdom. This represents 1.6% of the total Kingdom GDP excluding crude oil and gas. Between the year 2009 and 2012 the region experienced an average annual GDP growth rate of approximately 15%. The region's bulk produce is largely agricultural, which is consumed within Jazan and the neighboring regions. This means that Jazan's production does not significantly contribute to national exports moving through its ports. Jazan's exports contribute approximately 0.02% of total Kingdom exports and include cement, fish and shrimp.

2.1.5 National connectivity

Road Network

The main regional trunk road connects the Jazan Region to those neighbouring including the Asir Region via Al Darb to Abha and Khamis Musait, and the Najran Region via Al Daer to Najran City. The Highway 55 crossing the region on North-South axis, functions as the transnational transport and trade route to Yemen.

Air Transport

Jazan hosts the King Abdullah International Airport, which serves the region and connects it to the Kingdom. There are daily direct flights to and from Riyadh and Jeddah. There are plans to construct an international airport with modern aviation facilities, which will be located approximately 30 kilometres away from the Economic City, with a projected annual capacity of 3 million passengers. The new airport will occupy an area of 103 square kilometres with a coastline of approximately 12 kilometres. The regional economic report for Jazan notes that air transport is a fundamental pillar upon which the present and future economic development of the region relies. The effects of these developments will be felt at the national scale, as the presence of a strong and functioning air transport system will strengthen intra- and inter-regional connectivity. Statistics from this report show that the current Jazan Airport recorded approximately 968,000 passengers in 2012, an increase of approximately 21% from the previous year, accounting for approximately 2.51% of total air traffic in the Kingdom during that year.



Waterfront of the city





Fig. 4. Population in the region



Fig. 5. Economic and tourism sectors in the region



Sea Transport

The Jazan Port on the Red Sea is considered one of the most important ports in the Kingdom. The port is strategically located to serve all the Southern regions in the Kingdom. The regional economic report for Jazan indicates that the port contribution to the total shipping goods in 2013, both loaded and unloaded, was 3.72 million tons, representing 1.9% of the total goods handled cross the Kingdom's ports. The port is ranked second in the Kingdom in terms of passenger transit. It is estimated that close to 31% of the total passenger movements in the Kingdom by maritime transport passed through this port in 2013. The Farasan Islands, a group of 80 islands, located 40 kilometres offshore from Jazan City are also connected to the mainland by ferry.

2.2 Regional Development Patterns and Dynamics

2.2.1 Regional organisation

Administrative Boundaries

The Jazan Region occupies the extreme South-west of Kingdom of Saudi Arabia, bordering Asir to the North and East, Yemen in the South, with a stretch of approximately 300 kilometres of Red Sea coastline in the West. The region includes more than 80 Red Sea islands, the most prominent of which are the Farasan Islands. The Jazan Region occupies 16,000 square kilometres accounting for approximately 0.7% of the total area of the Kingdom. Administratively, the region is divided into the Principality of the Jazan and 13 governorates: Sabya, Abu Arish, Samtah, Al Harth, Damdh, Al Rith, Bisch, Farasan, Beni Malik, Ahad Al Masareha, Al Edabi, Al Aredah, and Al Darb.

Development Corridors

The regional plan for Jazan identifies three types of development corridors categorised by their area of influence. The first category makes reference to the main existing development corridor connects the three main cities of Jazan, Abu Arish and Sabia and forming a triangular urban core with extensions to Southern cities such as Samtah, Tuwal and Ahad Al Masareha. There are also planned extension routes emanating from these three main cities that make connections to the smaller cities in the East. The second category pertains to, the critical proposition to connectthe Port of Jazan and the Farasan Islands. The third category concerns the corridor connections which run Northwards from the regional urban core to Al Darb and Shaqiq.

2.2.2 Regional structure and resources

Movement Infrastructure

Road transport is the most important means of accessibility in the Jazan Region. The road network is fairly well established across the region with exception of the rugged mountainous Eastern section of the region that covers roughly a quarter of its land mass. The main regional trunk road connects Jazan City to the Northern and Southern cities in the region and









Fig. 8. Development corridors



Fig. 9. Population distribution in the governorates and regions according to 2010 census

functions as the transnational transport and trade route to Yemen. The recently constructed coastal highway, which runs from Al Shuqaiq in the North via Jazan Economic City and Southwards to Al Tuwal, is designed to link the economic city with further regions and to support the existing North-South transport corridor. This regional expressway forms an additional axis linking the Jazan Economic City to the governorate capitals, as it joins the major roads connecting the cities in the region.

The major cities of the Jazan Region, such as Sabia, Abu Arish, Samtah, Ahad Al Masareha, Al Darb, and Jazan are well connected by highways. By the end of 2012, the length of all paved roads in the region was approximately 3,022 kilometres, accounting for an estimated 3.3% of the 91,000 kilometres of total roads under management of MoMRA in the Kingdom. The lengths of expressways, two-way and one-way roads in the region that fall under the supervision of the Ministry of Transport, amounted to approximately 1,335 kilometres. This represents an estimated 8.4% of the total roads under the management of the Ministry of Transport, the total of which was recorded at approximately 16,000 kilometres by the end of 2012. The total length of agricultural and earth roads in the region amounted to approximately 4,932 kilometres by the end of 2012. Public transit facilities in the region include a SAPTCO bus, serving Jazan City and connecting it to Ad Darb

and Abha in the Asir Region.

An accessibility analysis performed to assess connectivity between major cities, with particular reference to the governorate capitals, shows that approximately 67% of the population in Jazan Region have access to capital cities within 15-minute drive time. It demonstrates that 91.6% can access these cities within a 30-minute drive time. There are a small number of cases in which access to capitals requires more than 2-hour drive time which is classified as poor access to essential goods and services. This condition is largely limited to communities residing in the difficult terrains of the mountainous areas. There is, therefore, the need to strengthen road connectivity or provide alternative means for service delivery to these marginalised populations.

Environmental and Topographic Elements

The Jazan Region has four distinct divisions based on climatic characteristics and topography. Those are the coastal strip, the agricultural lowlands, the islands and the highlands. The coastal areas are used primarily for industrial production, transport and fishing activities.

The relatively flat and gently sloping lands adjacent to the mountain range are popular for their fertile land, and support both cultivation and livestock farming. This area is known for the production of coffee, fruit, wheat, sesame, millets, and green fodder. The temperatures in these plains are the hottest



Typical streetscape in Jazan city

in the Kingdom, yet among the most productive, agriculturally. This is also where most of major towns in the region such as Bish, Sabya, Abu Arish, Samtah and Ahad Masarehah are located and where the majority of the population resides.

The steeper slopes of the mountainous Eastern portion of the region, which occupies approximately one third of the regional land mass, is a popular destination for tourism. The Al Sarawat Mountains, which rise to approximately 3000 metres above sea level, run North to South, approximately 60 kilometres inland. This area is slightly cooler than the rest of the region due to its high altitude. The Alhazoun Forest district is aptly names after its forest cover, with intermittent areas of rich pasture. There is a proposal to create a protected reserve in Wadi Goh, to the West of Aredha covering 131 square kilometres.2

The Farasan Islands, located 40 kilometres offshore from Jazan, collectively constitute the first protected wildlife area in Saudi Arabia. They are inhabited by the endangered Arabian gazelle and migratory birds from Europe during winter. The islands also supports fishing activities.

Economic Resources

Agriculture

Agriculture is one of the most important economic sectors in the Jazan Region. The coastal plains, named Tihamah, form the principal agricultural zone. The region is rich in arable soils and climatic conditions favor the cultivation of many crops. The area is well cultivated and due to irrigation projects undertaken by the government, have become one of the core agricultural regions in the Kingdom. Crops produced in the region include sorghum, millet, sesame, green fodder, vegetables, and tropical fruits such as mangoes, figs and papaya.

In the recent years, Saudi Arabia has ranked among the largest consumers of coffee in the world. The average consumption of coffee by a singular adult has reached three kilograms annually. The region has been encouraging the production of this key agricultural commodity. Jazan has more than 70,000 coffee plants cultivated by 600 small scale farmers who produce nearly 500 tons of coffee per year.

Crop production has seen an increase since 2011, at which time the total area under cultivation reached 63,000 hectares, which represented 8% of the kingdom's total crop area. Fish and shrimp farming thrives in the region, accounting for approximately 40% of national production. The fertile hinterlands are linked to the port and airport facilitates by road which assists transport for perishable agricultural produce to other regions in the Kingdom.

Mining and quarrying

The mining sector in Jazan has potential to develop and capitalise on the available mineral resources. The size and industrial feasibility of this mineral base is large enough to support exploration and development of manufacturing and processing industries. The region is rich enough to attract both local and international investments to explore the existing materials. The location of



Fig. 10. Accessibility in the region



The Jazan Ottoman castle under renovation

the region, with its long coastline and port facilities, ensures access to bulk cargo transport. Minerals available in the region include silica, clay, marble gypsum, limestone, sand and soda ash.

Jazan City for Primary and Downstream Investments (Jazan Economic City)

In a quest to diversify its economy, attract foreign investment and tackle unemployment, the Kingdom of Saudi Arabia proposed development of four economic cities under the principle of smart city planning. These cities are managed by the Saudi Arabia General Investment Authority (SAGIA) of 2000, which was established to act as a gateway to investment in the Kingdom. Jazan Economic City is one of the four such smart cities located close to Saudi border with Yemen, approximately 60 kilometres Northwest of Jazan City. Jazan Economic City (JEC) is an important economic initiative for which work has been initiated under the management of Saudi ARAMCO. This initial work includes a pioneer port, refinery, and mineral processing facility with roads and supporting infrastructure. In 2015, a Royal Decree assigned the Royal Commission for Jubail and Yanbu a mandate to manage and operate JEC, making it the fourth industrial and economic city to be managed by the Royal Commission. The city occupies 103 square kilometres of coastal land. It focuses primarily on heavy and secondary industries, investing in human capital and providing strong livelihoods. By the end of 2017 the city had created more than 72,000 new jobs, absorbing approximately 60,000 construction and industrial laborers.

The strategic location of JEC near the strait of Bab Al-Mandab, and its sea port's capacity, contribute to the city's position as a major maritime node in the Red Sea. Approximtely two thirds is designated to a modern industrial zone boasting specialist industrial technology. Other important sectors of the city include logistical services, cultural facilities, health services, business and education centres all of which generate working opportunities.

2.3 City-Region Structure and Dynamics

2.3.1 Structural elements

Jazan City is the biggest and the most important functional node in the region and is connected to the neighboring and relatively smaller cities by a busy and modern road network. The two key cities closest to Jazan are Sabya and Abu Arish in the Northeast and East respectively. These three cities, Jazan, Sabya and Abu Arish, are located approximately 30 kilometres from each other, forming a city-region of almost equidistant triangular sides, with a strong road transport system enriched by smaller nodal towns along the roads such as Al Karbus, Al Dhabiya, Khatirah and Al Malabooj.

The Jazan City-region has its central core in Jazan City where approximately 11.6% of the total regional population resides. The two other cities, Abu Arish and Sabya, house approximately 14.4% and 16.8% of the total regional population respectively. Together the city-region holds approximately 43% of the population in the region, making it a key functional hub,



Agriculture fields in the Jazan region



supporting the rest of the region in agricultural, commercial, industrial and service provision. The major means of transport in this area is by road and is strengthened by a public transit bus operated by SAPTCO, which runs from the coastal urban core, via Abu Arish and Sabya, to the Northern cities and a number of neighbouring regions. The well-established road network ensures easy access to the main city-region towns, which provide markets for agricultural produce, educational services such as universities and administrative functions, among others.

The domestic airport in Jazan serves the regional extent and the Kingdom at large. Its function includes both passenger and goods, providing an additional distribution centre for the region's abundant agricultural produce. There are also plans to construct an international airport close to Jazan Economic City, which will open the Economic City to the national and supranational regions. The port of Jazan is an additionally important entry and exit point to other regions and countries. Approximately 40 kilometres offshore from this port are the Farasan Islands, which are connected to the main island by ferry.

2.3.2 Functional connectivity

The city-region, which is collectively composed of Jazan, Sabia and Abu Arish, has seen tremendous growth over the last decade that has doubled the size of the urban extents. In the year 2004 the urban footprint of the core centre, Jazan City, was approximately 1,200 hectares. This area had grown to approximately 4,900 hectares in 2017. This expansion has included the appearance of satellite towns such as Mahleiah, Al Kharbus and Al Dabi in the triangular city-region, which enjoy the economic advantages offered by proximity to the three major cities.

Agriculture is the main economic activity supporting the livelihood of residents in Abu Arish and Sabia. However, Sabia also contributes to cultural tourism that is attracted by its historic palaces and heritage villages. Jazan City has a mixed economic function distributed through the port, regional administrative roles, and industries. This city provides the city-region with logistical services, employment opportunities and educational facilities, which are widely enjoyed beyond the city-region extents. The Jazan Economic City, which is intended to create employment through industrial activities, will greatly boost the city-region economy.



Fig. 11. Metropolitan vision of the Jazan region

3 GOVERNANCE AND FINANCIAL FRAMEWORK



3.1 Legal, Spatial and Institutional Framework

3.1.1 Legal and institutional context

Jazan's planning legal framework is shaped by the Kingdom's legislative environment which is based on Islamic Sharia Law. The law-making authority is vested in four entities; the King, the Shura Council, the Council of Ministers and the Ministerial departments. Consequently, there are five legislative instruments (Royal Order, Royal Decree, Supreme Order, Council of Ministers Resolution and Ministerial Decree) that function in a hierarchical order, underpinning their authority and validity. This non-centralised law-making process has given rise to over 500 existing urban planning related instruments pertaining to the city of Jazan.



Fig. 12. Number of urban laws in KSA based on the Main Themes of Urban Planning Legislation (UN-Habitat)

However, most of these are promulgated at the lowest administrative level (Circulars)² and therefore, lack authoritative legal force.

The Ministry of Municipal and Rural Affairs (MoMRA) is legally entrusted with the task of urban planning and provision of all construction permits in the Kingdom's cities. MoMRA therefore plays a significant role in Jazan's growth and development patterns. The Municipality of the Jazan Region (Amanah), as the local level actor for Jazan, acts as an implementing arm for MoMRA. The institutional budgetary system is also centralised, meaning that Jazan's development is reliant on funding allocation from MoMRA, through the sole fiscal resource of an annual line item budgeting.

The Kingdom's planning system that Jazan is subject to, follows a spatial hierarchy and is predominantly top-down. The National Spatial Strategy (NSS) of 2001 is the guiding plan for the Kingdom. Three plans, except the Local Plan, have been approved and implemented for Jazan. These are: a) the Regional Plan for the Jazan Region 2007; b) the Directive Plan for Jazan City 2010; and c) the Structural Plan 2007. The three phases of the Urban Growth Boundary (2014/1435, 2019/1440 and 2030/1450) aim to prevent urban sprawl in

the outskirts of cities in areas lacking access to adequate urban infrastructure and the Land Subdivision Plans are the basic building blocks that guide Jazan's development.

The NSS is the only plan that is enshrined in law, the remaining planning instruments are defined only by procedural manuals (issued by MoMRA), which compromises their legitimacy. By nature, these instruments cannot construct a system of legal accountability and transparency among the relevant actors. There is evidence to suggest that land use and building control regulations have facilitated urban sprawl in Jazan, despite calls from residents, specialists and the private sector to regularise high density residential housing within the city. This can be demonstrated by examining the total number of buildings (62170) and residential districts (51) within the city and extrapolating typologies. In 26 residential districts, more than of 45% of buildings have at most two floors, in 17 residential districts, 35% of buildings have three to four storeys. In 8 residential districts, buildings with more than four floors constitute 20%.3

In terms of reform, Jazan would benefit from both fiscal and jurisdictional decentralisation to facilitate independent and innovative solutions to urban social problems at the Amanah level. This should entail:

- The transfer of local planning power, authority and function from MoMRA to the Amanah, with provision for independent action without recourse to effectively address community needs. This is supported by the New Urban Agenda, which specifies that territorial urban design and planning processes should be led by sub-national and local governments, though their implementation will require coordination with all spheres of governments, with participation from civil society, the public sector and other relevant stakeholders.
- The Jazan Amanah could be strengthened through enhanced human resources capacity to improve the enforcement of development control and by forming an executive and administrative body within the Amanah, to streamline its vertical and horizontal coordination with other planning authorities. This would improve the quality of project implementation.
- Fiscal decentralisation, which gives autonomy to the Amanah to source funds to finance development activities. Revenue generation activities in cities may also include taxes and levies. Urban areas should be allowed to collect some form of property taxes to fund development activities. The recent White Lands Act that imposes fees on undeveloped plots in urban areas to tackle land speculation, housing shortage and indiscriminate land development, shows that regulatory mechanisms can be



Workshop discussion in Jazan with stakeholders and ministers

leveraged to generate revenue while fostering an efficient development framework.

• Opening of avenues for actors, including the private and voluntary sector and the general community, to participate in decisions regarding projects that affect them.

There is a need for a functionally effective urban planning law that, inter alia:

- Is sensitive to participatory city-wide slum upgrading and contains sound fiscal mechanisms to finance this policy initiative;
- Introduces incentives/requirements that will enable more compact city growth;
- Defines clear institutional roles and responsibilities at each level;
- Enforces linkage between all levels of plans (national-regional-local);
- Provides effective coordination and monitoring mechanisms;
- Increases meaningful public participation and engagement in planning

The city of Jazan could benefit from detailed plans for several key areas of the city such as the seafront and tourist areas, which should be informed by sound urban design guidelines, to integrate these areas with the rest of the city.

Revising the Urban Growth Boundary Law to include clear criteria for its definition would enhance technical and vertical accountability. The Law also needs to place more emphasis on establishing the Development Protection Boundary as a no-development zone, not only to prevent haphazard development but also, to discourage the advantage taken by private interests from laxity in the legal text.

These initiatives will strengthen policy formulation designed to move the city towards a more sustainable, compact and densely populated future. Primarily, a post-legislative scrutiny of the urban growth boundary law should be undertaken to assess whether it has met its policy objectives. This could, in turn, inform the legal reform process and planning policy options.

3.2 Planning Instruments and Procedures

3.2.1 Hierarchy of plans- Jazan

The planning system for Jazan is derived from the de facto planning hierarchy of the Kingdom. Within this framework, there are four different levels of spatial plans: national, regional, local and district. However, there is no clear structure for approval and implementation of the plans. Figure 13 highlights the planning instruments in force in Jazan.

3.2.2 Regional Plan for the Jazan region

Regional planning represents the second-tier of spatial planning in KSA, which aims to address the natural, urban, social and economic aspects of regional development. For the Jazan Region, a regional plan was approved in 2007 by MoMRA.

The regional plan aims to: a) develop a comprehensive vision for development, in a manner that maximises the use of available resources, b) establish a strong and diversified economic base for the region, c) provide new job opportunities; and d) meet the population's needs for services and infrastructure.

The regional plan is designed to concentrate urban development in select urban clusters in the region, which, in turn, will serve the remaining urban clusters. The proposed clusters are divided into several categories according to the functional role they will play, considering their diversity and integration (especially in terms of activities and jobs).

The Regional Plan for Jazan contains Special and General Goals. The former illustrates the mechanisms that will be applied to achieve the latter. The General goals are outlined below:

1. Assessing Regional Resources and Capacities:

- Monitoring and analysing the natural, human and economic resources of the region and governorates; and
- Recommending future development projects for the region within the scope of the results of the economic studies.

2. Preparing a Regional Plan and Sub-Regional Plans for the Region:

The regional plan for the region and the sub-regional plans for the governorates (approved in 2007 by MoMRA) aim to achieve the following:

- Prescribe land uses within the target year for the region and the governorates;
- Hierarchical classification of conurbations so as to effectively identify the national, regional, local and district level centres;
- Improve the capacity of the services and infrastructure facilities in the region and the governorates; and
- Update and prepare structural plans for the current and development centres.

3. Addressing Regional Challenges:

- Curb the unsystematic and unplanned urban expansion occurring in the cities of the region;
- Upgrade archaeological and historical sites to boost regional tourism;



The salt plateau in Jazan




- Conserve the environment and wildlife; and
- Re-define the roles of the conurbations based on their functions;

4. Implementation Mechanisms for the Recommended Development Plans:

- Establish municipal offices in the development centres in each level, based on their size and function;
- Direct urban development in populous cities to less developed agglomerations, in order to ease the pressure on public services and facilities;
- Steer urban development towards the main rural areas that have a lower population density in a way that maximizes available resources; and
- Supporti the diverse economic base and the participation of rural sectors in the regional economy through optimal utilisation of local resources.

3.2.3 The Jazan Plan

The Jazan Plan is a planning tool composed of a strategic component (the Structural Plan), supported by a regulatory document (the Local Plan). The scope of these plans includes:

- Long term strategy for the city;
- Identification of relevant development areas;
- Identification of urban/non-urban land;
- Main mobility system;
- Environmental protection;
- Infrastructure provision;
- Detailed land use;
- Urban regulations; and
- Detailed proposals for selected areas

Structural Plan of Jazan

The Structural Plan aims to identify key spatial structures as those provided for in the Regional Spatial Strategy. The Jazan Structural Plan (2007-2030) was prepared by the Amanah and approved by MoMRA. This plan, in line with the Regional Plan, highlights several objectives for the different cities that are located within the metropolitan area. For example, the city of Jazan remains the administrative and service centre for the region. The Structural Plan for Jazan City was prepared based on a number of policies that were specified by the National Urban Development Strategy and the Jazan Development Strategy. These policies also grounded Jazan as the capital of the Regional Emirate and a national development centre. These policies can be summarised as follows:

- Urban regeneration through project-based initiatives;
- Addressing congestion in the city centre, improving the urban fabric and protecting the urban character of residential areas;
- Improving the current land use integration within the urban environment and prohibiting change of land use for agricultural lands;
- Allocating lands along the regional road networks to

enhance the establishment of regional services therein;

- Choosing suitable locations for public and government services within the city and reserving non-urban lands for future development;
- Achieving balance in the distribution of commercial services and urban centres, facilitating the transformation of privately-owned land to public facilities and services, and increasing mix-use development;
- Encouraging the expansion of industrial zones, linking them to highways and integrating them with urban facilities;
- Expanding the economic base of the city in areas such as the mining, agricultural and fishing sectors;
- Upgrading the coastal areas by facilitating access and providing adequate services, furnishing the region with a competitive advantage;
- Managing waste disposal and pollution in commercial and residential areas; and
- Improving open public spaces, increasing their availability in the city and respecting the cultural and local surroundings.

The structural plan identifies strategic land uses and infrastructure networks within the metropolitan area of the 2030/1450 Urban Growth Boundary. Within this growth boundary, 43% of the urban footprint is reserved for residential use and 23% is preserved for government use. The area allocated for residential purposes is extremely large and according to FSCP projections, can house double the projected population. However, the plan promotes a very low-density residential typology.

This plan encourages a monofunctional land use. Mixed land uses and commercial uses (2.4% mixed-use, 4.4% commercial use) are proposed only along the major corridors and secondary roads. Other uses such as entertainment, have a land allocation of 11% and 7% of the city's urban area is reserved for educational use.

The Local Plan

The Local Plan represents the third level of the urban planning system in KSA and is largely focused on those areas of a municipality which are contained within the urban growth boundary, with a special focus on housing.

The Local Plan contains the Urban Atlas which details the permitted land uses for every part of the city. It is complemented by a regulations report, which contains specifications on the permissible development rights such as floor area ratio, street dynamics, building heights, areas of special building regulations, etc.

The aim of the local plan is to a) apply controls to urban land use and building regulations; b) to provide public services and infrastructure in a cost effective and integrated manner; c) set basic requirements for proposed road networks; and d) help facilitate the development of public and private sector housing. The local plan is prepared by various consultants following the "Booklet of the Terms of Reference for the Preparation of the Local Plan" which is formulated by MoMRA. This Booklet was updated in 2015 and one key technical change is the requirement that the lifespan of new plans should be 14 years (2015-2029). However, this booklet has no legal standing. Additionally, there is no accompanying legal framework to support the enforcement of the local plans.

The development of the Local Plan is complicated by the existence of parallel structures applied by MoMRA and the Ministry of the Interior. Whilst the legal mandate for planning clearly lies in the Municipalities (under MoMRA), there are jurisdictional overlaps with the Mohafezat (Governates – Sub-regional) and Markaz (Districts), which fall under the Ministry of Interior. More precisely, the Ministry of Interior remains the oversight entity for regional project implementation⁴ with MoMRA designated as the central spatial planning institution. However, there lacks a clear mechanism for coordination. This frequently leads to an impasse in decision-making which affects the delivery of technical standards within municipalities such as Jazan.

The Jazan Local Plan is yet to be finalised and approved, though MoMRA, in coordination with the Amanah, initiated the process in 2014.

3.2.4 The Directive Plan for Jazan

The Directive plan for Jazan City was prepared in 2010 by the Al Shati' Office for Engineering Consultancy in cooperation with the Amanah and in coordination with MoMRA. This plan's main objective was to update the systems and controls for construction in Jazan City, i.e. the requirements and regulations of the building codes. Its goals therefore include: The 2014 Decree stipulates several general development principles including:

- Redrafting the building codes in order to achieve the goals of development and provide guidance for both current and future development;
- Maintaining a balance between real estate prices and the economic returns from investments in housing projects, thus encouraging investors to contribute to urban development activities that have economic value;
- Achieving standards of privacy for inhabitants, taking into account good neighbourliness;
- Preserving the natural environment and the aesthetics of the city, which create a distinct personality for Jazan's neighbourhoods and its city centre;
- Ensuring that buildings have the necessary public facilities based on sound scientific, engineering and economic standards;
- Ensuring that the regulations are in line with actual needs in the city and in accordance with what is required by the plan; and



Commercial facilities in the city centre

• Creating an enabling environment that attracts more people to the City through its natural features.

Building regulations policies were established by the Directive Plan based on various studies and discussions conducted. These aim to enhance Jazan's urban characteristics and promote sustainable urban development. These policies include:

- Promoting the privacy of residential areas, specifically the areas with villas;
- Increasing the efficiency of the transportation network by creating parking spaces inside and outside of buildings;
- Attracting unique projects that will show the city's significance as a potential centre for development in the Kingdom;
- Clear demarcation of streets and commercial areas as key elements of the city's urban structure;
- Encouraging development of large parcels of land by creating investment incentives and waiving some construction requirements;
- Allowing mix-uses on main streets and in residential areas after securing municipal approval, in accordance with standard procedures;
- Incentivising, as a means to encourage business owners to provide services and activities that help improve the urban environment in the city.

3.2.5 The Jazan Urban Growth and Development Protection Boundaries

Legal Framework

In 2008, the Prime Minister issued decree No. 157, which sets the overall regulations of the urban boundary (until 2030) and the Development Protection Boundary. The executive regulations were issued in 2010 by the MoMRA Ministerial Decree No. 11769 followed by the current revision (MoMRA Ministerial Decree No. 66000) which was enacted in 2014. The urban growth boundary is intended to control urban expansion and prevent sprawl in the outskirts of cities without adequate concomitant infrastructure, whereas the development protection boundary sets a long-term plan for future development, by demarcating a no-development zone that preserves land for growth beyond the 1450 (2030) Urban Growth Boundary, thus additionally assisting in sprawl prevention.

The 2014 Decree stipulates several general development principles including:

- Strategic development projects that are part of spatial strategies, including major road and railway networks passing through private lands, should be prioritised over any other development projects;
- Development projects outside of the boundary are only permitted with the approval of MoMRA; and
- Large-scale development projects should follow specified detailed standards.

URBAN BOUNDARY CLASSIFICATION OF LAND SUBDIVISION APPROVALS AND THE URBAN BOUNDARY PHASES			
EXECUTIVE REGULATION ISSUED BY THE MINISTERIAL DECREE			
NO 66,000 IN 20/12/2014			
1 st PHASE (2014-2018)	2 ND PHASE (2019-2024)	3 RD PHASE (2025-2030)	
NATIONAL GROWTH CENTRES (HAEL, TABUK, BURAIDAH, UNAYZA, ARAR, NAJRAN, JAZAN, AL BAHA, SAKAKA, ABHA, TAIF AND AL-AHSA)			
MORE THAN 500,000 SQM			
 Tarmacking of internal roads Sanitation and electricity Water if available Storm water infrastructure 	 Tarmacking of internal roads Sanitation and electricity Water if available Storm water infrastructure Connect to closest main road % of residential area completed not less than 50% Provide land for social services (schools, kindergartens, hospitals, etc.) 	 Tarmacking of internal roads Sanitation and electricity Water if available Storm water infrastructure Connect to closest main road % of residential area completed not less than 50% Provide land for social services (schools, kindergartens, hospitals, etc.) 	
- Tarmacking of internal roads - Sanitation and electricity - Provide land for social services (schools, kindergartens, hospitals)	-	-	

Fig. 14. Matrix showing the development options within the phases of the Urban Boundary in the National Growth Centres (Including Jazan)

The Law also defines infrastructural standards that developers are to follow based on the size of the proposed lot and the city's categorisation as either a national, regional or local centre (see figure 14).Legally, the area between the Development Protection Boundary and the 1450 (2030) Urban Growth Boundary is protected and not earmarked for development, however, the law does outline exceptional mechanisms for mega or national-regional economic projects therein.

Moreover, given the law, certain agencies have rights to lands situated in protected areas between the two boundaries. Approval of development projects in such cases is routinely controlled byregulations in this regard. Additionally, given the legal flexibility surrounding the definition of "mega" or "strategic" projects, private residential developments have been approved outside the 1450 urban growth boundary. These factors have undermined the functional effectiveness of the regulations, the rule of law, and the compact development of urban areas.

Setting the Boundary

The urban growth boundary for Jazan was set simultaneously alongside those of other cities by MoMRA, through a Committee under the Unit of Coordination and Projects. The composition of the committee is not clear, however, it is known that it did not involve the municipality of the Jazan Region, which remains formally responsible for planning at the city level. There is an understanding that the calculations were based on factors such as historical and expected population growth in the city,however, there are no published criterion explaining the methodological calculation of the boundary size.

Challenges

Although the growth boundary regulations set very clear rules that forbid development outside the boundaries, there are some exceptions. For example, land belonging to the Ministry of Housing has been scattered in remote locations within Phase II of the boundary in Jazan and the development of this land may take longer due to lack of required services.⁵

Permitting

Development within the urban growth boundary is closely linked to permitting and development control. The process in Jazan is as follows:

- A developer submits a land subdivision plan with detailed implementation plans for the instalment of the requisite infrastructure to the Amanah (Jazan Region);
- The Amanah assesses application in accordance with the provisions of the Law on Urban Growth Boundary; except those cases defined by MoMRA Ministerial Decree No 17777. This decree delegates certain roles to mayors for approving land subdivision, solely in relation to the size of residential projects. The Mayor of the Jazan Region is an approval authority under this Law;
- Application sent to MoMRA for review in accordance with



Ground floor retail along streets in Jazan

development standards and applicable building codes;

- Building permit is either refused or granted by MoMRA;
- A developer whose permit has been refused has two options of appeal: a) recourse to the Amanah and MoMRA calling for them to re-study the application; and b) file the case in the relevant jurisdictional administrative court; and
- The decision in the above appeal processes is final and binding on all the parties.

White Lands Act – Jazan

The percentage of undeveloped land ("white lands") in Jazan is high at 50% (20,242 hectares) of land inside the Jazan 1450 UGB area. The existence of white lands has been a major contributor to a growing housing shortage, particularly for youth and the growing population. This is largely attributed to property hoarding, intended to maximise land value before development. The government recently issued the White Lands Tax Law⁶ that imposes an annual land tax of 2.5% of its value on 'white land', which is defined as vacant land located in 'populated areas', zoned for residential or for dual residential and commercial use. The aim of this Law is to: a) increase the supply of developed land to better address housing shortages; b) make residential land available at reasonable prices; and c) combat monopolistic practices. The Ministry of Housing, as the implementing authority, will enforce the Law in phases At the moment, the Act is operational only in Makkah, Riyadh, Dammam and Jeddah (see figure 15).

3.2.6 Land Subdivision Plans

The land subdivision plans are the basic building blocks for KSA cities' growth and development. The Mayor of the Jazan Region has the power to approve land subdivision in accordance with the following criteria (Ministerial Decree No. 17777 of 2010):

- The land must be within the approved phase of the urban boundary;
- The land use specified for the land is consistent with the instructions and regulations that govern it;



Fig. 15. Percentage of White Lands – First phase of implementation of the White Lands Law

- The subdivision will not result in cancellation or modification of an approved regulation, planning or authorised land use.
- All necessary planning procedures have been completed and the Deputy Ministry for
- Town Planning has been issued with a certified copy of the plan after its approval.

The Amanah has approved 970 land subdivision plans within the urban growth boundary.

3.3 Urban Institutions in KSA

3.3.1 Urban institutions in KSA

Jazan's growth and development pattern is impacted by the centralised planning institutional framework of KSA under the Ministry of Municipal and Rural Affairs (MoMRA). MoMRA is entrusted with the task of conducting urban planning of the Kingdom's cities, including provision of necessary roads and fixtures, maintenance and cleanliness of the environment, in addition to the management of licensing for all types of construction activity.⁷ The Deputy Ministry of Town Planning, which falls under MoMRA and its departments such as Local Planning, Studies & Research, Projects Coordination and Urban Planning & Design, is mandated to coordinate with "concerned bodies" in charge of planning to achieve comprehensive urban development.⁸ In practice, there is little coordination between these departments and the Amanah, which affects service delivery and project implementation.

3.3.2 Regional context – Jazan Region

According to the Ministry of Interior administrative classification, the Jazan Region is divided into 13 governorates and 31 sub-governorates (20 Class A and 11 Class B). Jazan, as the regional capital, is not included in this classification but is instead governed as a "municipality" (Amanah), headed by a Mayor. Given this structure, the Amanah is allocated funds by MoMRA for development action and municipal services through annual line item budgeting,⁹ which is the sole fiscal resource available to Jazan.¹⁰

There are additional institutions in the Jazan Region that manage and regulate the development process. The Amarah of the Region is headed by the Regional Prince who, pursuant to the Regional Law,¹¹ reports to the Ministry of Interior.

The Regional Council $^{\rm 12}\,$ is based in the Amarah and is required to: $^{\rm 13}\,$

- Identify the needs of the region and propose their inclusion in the National Development Plan;
- Identify beneficial projects for the Region and submit these as activities requiring funding. These requests are vetted, and viable projects selected for funding. Funding is provided as part of the National Development Plans and yearly budget of the country, which is the sole resource available to municipalities
- Study the organisational arrangement of the regional



Women participation in the Jazan rapid planning studio

administrative centres, follow up implementation of any modifications; and

• Implement the provisions of the development and budget plan and carry out the needed coordination.

The Municipal Council, supervises the activities of the Amanah and municipalities to ensure conformity to the Local Plan in concurrence with the current needs of the region. Two thirds of the council's members are appointed by citizen vote, the remainder appointed by MoMRA The council approves:

- The municipal budget allocated by the national government. This is subject to continual revision in accordance with priorities set jointly by the Council and the Mayor;
- Residential plans pending examination for procedural violation;
- The scope of municipal services; and
- Expropriation projects based on the priorities of the Mayor.

Executive powers are vested only in MoMRA, the Regional Prince and the Regional Council.

3.3.3 Local context – Jazan

The Jazan Region is composed of several cities though Jazan, as the capital, is also the largest city. As outlined above, the city is managed by the Amanah which is directed by a mayor. The mayor is appointed by MoMRA and the executive members of the Amanah are appointed by the Civil Service Bureau by professional qualification.

The organisational structure of the Jazan Amanah has been updated twice, the latest revision taking place in 2012-2013. Within this structure, four main departments are charged with the administrative, organisational and planning aspects of the Amanah of Jazan as follows:

- Deputy of Urban Development;
- Deputy of Construction;
- Deputy of Services; and
- Deputy of Development and Municipal Resources.

There are various challenges facing the Amanah in relation to the administration of Jazan, such as:

- The role of the Amanah is to apply the regulations and legislation issued largely by higher authorities. Its limited role in planning directives is restricted to developmental suggestions. The Amanah's direct role lies mainly in the preparation of building regulations of the city of Jazan within the unapproved local plan;
- Many governmental agencies, with particular reference to their departments operating within Jazan City, overlap functionally with the Amanah. These are: Emirate of Jazan, Jazan Regional Council, Jazan Municipal Council and the

Municipalities of the 13 Governorates. As standard, there is direct consultation between the Amanah and these agencies, particularly in addressing citizen complaints.

- There is limited vertical coordination between the Amanah and the Ministerial departments, with exception of the Ministry of Finance. There is continuous and direct coordination and communication with the Ministry of Finance, necessarily with respect to financial claims and budgeting;
- The limited number of employees specialised in urban planning. This can be partially attributed to the bureaucratic and time-consuming recruitment process;
- Insufficient budget which does recognise the magnitude of work to be undertaken within the Amanah. This affects, among others, the ability to hire qualified consultants to prepare plans;
- The procedures to monitor violations of planning regulations and enforce administrative actions. The process for issuing penalties is currently cumbersome and therefore, ineffective as a deterrent mechanism;
- The uneven nature of topography in select areas within the Jazan Region such as the Fifa area, has raised the cost of construction and development;
- Poor infrastructural services and maintenance;
- Grabbing of publicly-owned land is taking place in the governorates and villages due to weak supervision by the relevant municipalities; and
- Limited engagement and consultation with the private sector by the Municipal Council, with particular reference to residential and commercial developers.

3.3.4 Legal and Institutional Implications for Jazan

Most technical decisions and approvals passed in the local governance system (Amanah), including planning decisions, are made on a discretionary basis according to the priorities set by the Mayor and the Municipal Council. This affects the system's technical accountability, predictability, and practical clarity. Coherence cannot improve until measures are taken to instil legal mechanisms that harmonise and guide the planning system. This ambiguity, together with rule of law concerns, negatively affects foreign direct investment which undermines the economic pillar of the Kingdom's Vision 2030.

3.4 Financial Context

The Region of Jazan has strategic and favourable position on the red sea coast, close to African border. This position is advantageous for the development of tourism, trade and commerce. As the capital, Jazan is both an administrative and an economic centre, in which the majority of economic activities take place, including a considerable amount of industry and shipping.

Public administration and defence, wholesale and retail trade, agriculture and education are the main economic sectors and



Vacant land at the city's outskirts

employ the majority of the region's workforce.

However, the economy of Jazan is polarised around two main sectors. Construction, and wholesale and retail collectively employ 68% of the city's total workforce (see figure 19).

The government is working to identify strategic economic sectors that can foster local economic development, job creation and innovation in Jazan. Economic diversification in this part of the Kingdom is key to achieving both the regional and the national economic goals of the 2030 Vision.

Consequently, the development and enhancement of infrastructures (i.e. airport, harbor) and facilities serving Jazan's key economic sectors (e.g. industry, logistics, agriculture, tourism) is of priority to the government. These elements are fundamental to increase industrial patterns, spur competition and harness the productive capacity of Jazan, in order to heighten the city's contribution to the regional and national economy.¹⁴

Though Jazan's economy is heavily focused in traditional labour intensive sectors, (contributing 30% of regional industrialisation), the government is working to foster development and innovation and is identifying economic leverages focusing on agriculture, industries, and tourism. Part of the government's strategy to reach its economic goals includes a renewed commitment to strengthen the feedback loop between (1) regional and local needs, (2) education and

training, and (3) the economic landscape. The government aims to foster growth in human capital, with strengthened market conditions that support research, innovation and economic diversification.¹⁵

3.4.1 Jazan's Financial system

Sustainable urban and local economic development requires a sound and resilient municipal finance management system. Currently, the National Development Plan directs Jazan's public financial system. This system is highly centralised and depends on intergovernmental transfers to fund local development activities and projects. In 2017, the central government allocated 5% of the total budget to municipal services, which also covered projects and programs managed by the Ministry of Municipal and Rural Affairs (MoMRA) (MoMRA, via Amanahs,¹⁶ is responsible for financing activities categorised as "municipal services", such as urban planning, building licensing, sanitation and road maintenance. In addition to MoMRA, several other government ministries and entities, such as the Amarah and regional councils, fund and implement projects at the local level (e.g. the Ministry of Education provides direct funding for city schools).

3.4.2 Municipal revenue

Currently, Amanahs have few sources of revenue and limited authority to collect fees. Athough MoMRA introduced municipal fees, which expanded the own-source revenue



Source: General Authority for Statistics (2015).

Fig. 16. Job distribution in Jazan region by economic activity, 2016



base, local revenues remain insufficient. Consequently, Amanahs remain reliant on support from teh central budget. Intergovernmental transfers from the MoF are based on yearly budget proposals submitted by the various ministries. In MoMRA, the budget drafting process tends to be influenced

Source: United Nations Human Settlements Programme, Nairobi (2018).

Fig. 18. Comparison of industrialisation trend between city and regional levels, 2010-2015



Presentation of the Future Saudi Cities Programme in Jazan

by local needs and priorities. Municipal governments submit project proposals for the next budgetary cycle, which are then submitted to MoMRA's leadership for final approval. The projects approved are included in the MoF's budget review and submitted for royal approval to receive funding.

3.4.3 Financing municipal operating costs

In 2016, Jazan collected SAR 89.5 million in own-source revenue, corresponding to 10% of the city's budget.¹⁷ In order to manage the municipal finance and reduce the dependency on the central government, the National Transformation Programme (NTP) directs the local government to establish sound fiscal policies through the introduction of new financing instruments.



Source: Bhatia, R. (2017). Saudi Arabia Budget 2017. The Gulf's International Bank.

Fig. 19. Saudi Arabia national expenditures by sector, 2017.



Source: Bhatia, R. (2017). Saudi Arabia Budget 2017. The Gulf's International Bank.

Fig. 20. Saudi Arabia national expenditures by sector, 2017.

3.4.4 Capital financing for municipal development of Jazan

The demand for alternative financial sources to diversify the funds for public goods, like infrastructures, services, and facilities in emerging countries is becoming a priority, especially in cities like Jazan. This is strategic for the city to create right conditions to develop local economy, reinforcing local competitive advantages such as the geographical position, attracting new entrepreneurial activities and talents, and spurring innovation.

In these terms, Jazan economy will have a direct impact from new capital financing options, experiencing economic returns for local key sectors like, mineral, tourism, agriculture, and fishery. Beside, they present great chance to create employment and boost national and foreign direct investment (FDI) to support the project of Jazan City for Primary and Downstream Industries (JCPDI), providing an economic stimulus for the entire region.

Budget Category	SAR (thousands)
Salaries	69,550
Operation Expenses	9,640
Operation and Maintenance Programs and Contracts	169,400
Projects	575,700
Total	842,290



Source: Ministry of Finance, Saudi Arabia (2016).

Fig. 21. Amanah budget, 2016

To address these new development challenges, hence, new financing options available to countries like Saudi Arabia has been rapidly expanding as priority. Recent reforms were introduced to improve the Saudi market through increased capitalisation. For example, the Capital Market Law, the Securities and Exchange Commission, and a privately-owned Stock Exchange have recently been launched in Saudi Arabia as mechanisms to ease and enhance the market for domestic trade.

Between 2011 and 2016, Saudi equities rose in value from just over 50% of GDP to almost 70% of GDP. Today, Tadawul is the sole Saudi stock exchange market and the largest equity exchange market in the Arab world.¹⁸ Alongside Tadawul, Saudi Arabia introduced Nomu, an equity market for small and medium-sized enterprises (SMEs). With fewer listing requirements, Nomu is a sound option for SMEs that are interested in going public.

In addition to provision of traditional banking services, Saudi Arabia's domestic banks went through a series of mergers and acquisitions after the recent oil price shock in 2014-2015, diversified their assets, and began to offer both conventional and Islamic investment products to a varied investor base.¹⁹ The Saudi Arabian market is becoming an example of efficient capital allocation driven by strategic reforms and increased market capitalisation.²⁰

The government began issuing bonds for debt financing in 1988. In the last 15 years, the debt market has undergone a series of reforms, which have changed the processes for issuing bonds, pricing bonds, and setting bond maturity terms.

The group, Investors in Government Development Bonds (GDBs), is a major buyer of government bonds. The group is comprised of domestic financial institutions, banks, and foreign investors.²¹ GDBs are Zakat deductible for domestic investors and exempt from withholding tax on income for foreign investors.

This approach to creating competitive and attractive conditions for capital and equity investors is expected to have wideranging impacts on the local economies and projects of cities like Jazan in the future, increasing the availability of capital to finance local development, while improving the productivity, efficiency and sustainability to meet 2030 Vision objectives.



Workshop presentation in Jazan with stakeholders and ministers

THE CURRENT CITY



4.1 Urbanisation Patterns

4.1.1 The city's development patterns

Jazan City is a port city, the capital of Jazan Region and a national growth centre, located on the Southwest coast of Saudi Arabia on the Red Sea, directly North of Yemen. Jazan holds a mix of industry, trade and commerce and is the main connectivity node of the region. With a current population of approximately 136,000, Jazan has large agricultural farming community and is known for tropical fruits such as mangos, figs and papaya.

Jazan City was formed of a collection of scattered settlements that eventually merged. According to the available data, in 1966 the city covered approximately 338 hectares. Its land area grew rapidly over the next 13 years (1979) to 645 hectares, a 91% increase from 1966. The city's land area continued to expand from that point, accumulating an additional 495 hectares in the following 14 years (1993), an increase of 77% from 1979, hosting a population of 56,565 inhabitants. The next 11 years recorded a slow growth in land area but a rapid increase in population. In 2004, the city land area was recorded as 1,214 hectares, at which time the population was recorded to be 100,694, an increase of 44,129 or 78% within that 11 year span. In the last 13 years, from 2004 to 2017, the city grew by over 300% to cover 3,775 hectares, an expansion mainly driven by ARAMCO and various mega projects initiated by the central government. During this same period, the population recorded a modest increase of 35,313 residents or 35%, bringing the current population of the city to 136,007. There are now several mega projects at various stages of development driven by ARAMCO, which constitute a significant physical presence in the city.

Jazan, which began as a cluster of dispersed settlements, is now a consolidated centre with a multitude of land features and functions. The city grew concentrically, with a natural proclivity towards the seafront. The next stage of physical growth, based on current proposed plans, will push the city in a linear pattern on the North-South axis along the coast. The city has a 15 kilometre long coastline and reaches approximately 5 kilometres inland from the Red Sea coast. The most dominant existing land use is residential accounting for approximately 45% of the current built-up area. This is followed by government land use that includes military land and amounts to 23.2% of the current built-up area is the Jazan Airport.

The physical geography of the city is relatively flat, interrupted only by a modest plateau in the core built-up area, on the water's edge. The plateau is formed of salt which renders it unstable and uninhabitable. The coastal edge gently meanders and undulates with no strong natural features, however, there POPULATION 136,007

POPULATION DENSITY on built-up area



AGE PROFILE

☆ 🛉 🛉 38% < 15

POPULATION GROWTH RATE



150,007 Expected Population by 2030

JAZAN CITY COMPARED TO TOULUN IN FRANCE





Fig. 22. Boundaries, neighbourhoods and key infrastructures

THE CURRENT CITY







Fig. 23. Land allocated per capita



Fig. 24. Urban growth stages

are man-made features such as marine harbours and coves. There is a prominent wadi network present in the Northeast of the urban built-up area. The city's agricultural lands are located towards the North and East. The airport, located along the Eastern edge, acts as a barrier to the agricultural land. However, recent developments have jumped over the airport, expanding the city limits into the agricultural lands.

The city of Jazan has a current population estimated at 136,000 people with an average density of 27 persons per hectare. Approximately 38.5% of the population in the city are below 15 years of age. The city has an annual population growth rate of 4.05% which supersedes the national growth rate of 2%.

4.1.2 Administrative boundaries

With a population of 136,000, Jazan hosts approximately 10% of the Region's population. Administratively, the Development Protection Boundary (DPB) covers 47,511 hectares, which defines the total size of territory under the Amanah's administrative authority, demarcating the edges of the city. The Development Protection Boundary, together with the 1435 and 1450 Urban Growth Boundaries, are set by the MoMRA with the objective of controlling urban expansion from occurring without adequate accompanying infrastructure, and preventing urban sprawl in the outskirts of the city. The current Jazan DPB defines a vast area of land measuring approximately 40 kilometres North to South and 17 kilometres from East-West.

The 1435 and 1450 Urban Growth Boundaries are closely tied to the city's current and future urban growth trends and were established to support decision-making processes concerning land use, economic development and strategic governance. The Development Protection Boundary and the Urban Growth Boundaries need to be carefully planned to correspond with strategic vision and goals.

The 1435 UGB includes 16,567 hectares of land that falls outside the current built-up area. The 1450 UGB encompasses an additional 7,820 hectares and extends to a total area of approximately 29,376 hectares. The total extension of land between the built-up area and the 1450 UGB is 24,387 hectares. If developed at UN-Habitat recommended density of 150 p/ha, this amount of land could accommodate 3,658,050 inhabitants, taking approximately 95 years to reach capacity at the current growth rate of 4.05%. The excessive nature of these boundaries renders them largely ineffective as growth management tools, instead encouraging urban sprawl and ineffective infrastructure investments.

The area between the DPB and the 1450 UGB, amounts to 18,135 hectares. This area incorporates natural features such as hills, open desert, wadis and agricultural farming land, and is sparsely populated. The protection boundary is intended as a no-development zone to retain development inside the 1450 UGB. However, ineffective enforcement of developmental constraints leads to ad-hoc development without a comprehensive vision for the city.



The industrial area plays a key role in the urban structure of the city



4.1.3 Urban density

The city of Jazan has a population of 136,000 habitants on a built-up area that covers 4,989 hectares. In the past 24 years the city population has grown by 140%. At the current growth rate of 4.05%, the population of the city will reach 150,000 by the year 2030. Jazan's population growth and fluctuations are directly linked to Jazan University and Saudi ARAMCO's presence in the city.

The city extents are defined by the Red Sea coast in the West and the flat plane in the East. Within the built-up area, Jazan's population density is currently 27 p/ha. This is considered to be low density within the built-up area in the Saudi context. Therefore, Jazan has the potential to densify within its current urban footprint without the need to expand into new undeveloped areas.

The highest density pattern is found within the core of the city, in the old city centre where it is estimated to be between 40-62 p/ha. This area accommodates 15.5% or 21,108 of the city's population. The urban fabric in this area is compact and the buildings are generally three to five stories high with minimum setbacks. The advantages of such development patterns are numerous, for example, the compact arrangement of the buildings offers shade to facades and to pedestrians on the streets. High density also makes the city more affordable as service and maintenance costs are shared across many people per hectare. The public realm is vibrant and occupied by more people, for more of the day, which supports the various commercial activities. Despite the advantages of, Jazan's density the city's pattern lacks a proportional amount of green open spaces, which would allow the city to capitalise on all the benefits a compact form brings. For this reason the city will need to plan strategically during further densification and implement a proportionate increase in green open space in the urban core and across the city.

Medium densities ranging between 21 and 26 p/ha are also found in the central areas. The low-density development patterns with a density below 20 p/ha, characteristic of the most recent expansions, demonstrate the lowest performance of all zones within the city. The city also demonstrates leapfrog development patterns beyond its urban built-up area, in which the lowest density is recorded within the range of 7 to 16 p/ha. These areas are considered to be underdeveloped and characteristic of urban sprawl. They pose a risk to the balance of the city in favour of a polarised and inefficient distribution. Low density and underdeveloped areas increase distances and are less accessible to pedestrians, encouraging dependency on private car ownership. For the same reasons, the costs for providing services in these circumstances are much higher to the city. As a result, citizens in these areas often lack adequate access to public facilities and efficient infrastructure such as water, sewage, and roads.



One of the few mixed-use neighbourhoods in the city



Residents: 136, 007

Average population density: 27.0 p/Ha



Fig. 26. Current distribution of population density





Fig. 27. UN-Habitat recommended density levels

4.1.4 Land use

In the current land use plan, single residential use accounts for the largest land area at 45%. Governmental land use accounts for 23%, which includes military reserves, the regional airport, government offices, and other related governmental facilities. The third largest land use area is attributed to what is categorised by the Amanah as entertainment. This category includes amusement parks and open recreational spaces within the urban fabric and along the seafront. The seafront parks are considered to be Jazan's Corniche, and will be comparable to Jeddah's Corniche once completed. A major percentage of entertainment land use is divided into two major clusters and is located just outside of the city's current built-up area. One of these divisions is located approximately 3.2 kilometres Northwest of the urban centre. The other sits approximately 5.5 kilometres Southwest of the urban centre. The two clusters are are approximately 9.5 kilometres apart.

Educational facilities have a sizable presence in the current land use plan. Accounting for 7.3%, it is the fourth largest land use in the city. This high number is attributed to Jazan University, located approximately 8.6 kilometres North of the urban centre. Jazan University is considered to be the largest university in the Kingdom by land area, occupying 880 hectares.

Commercial land uses occupying 4.4% are located along major transportation corridors such as King Abdulaziz Road

and King Fahd Road and in the urban centre. Mixed land use, accounting for 2.4% of land area, is largely concentrated in the urban centre of Jazan. The presence of a combination of commercial and mixed-use in the urban core makes it a vibrant and compact centre that is economically diverse and pedestrian friendly. Industrial land use is recorded at 3.8% and is located approximately 9 kilometres South of the urban centre in a concentrated cluster.

The city's proposed land use plan, limited by the 1450 UGB, reflects the same pattern and proportions of the existing land use plan in its designation of the largest land use areas to residential, governmental and education respectively. Residential land use remains consistent at an attribution of 40%, government land use will increase to 28% and educational land use will increase to 12%. Regional services, which are not present in the existing land use plan but are integrated into the proposed land use plan, occupy 11% of the 1450 UGB. Regional land use categories include facilities such as regional hospitals, logistical centres and large regional open green spaces.

In terms of distribution, residential land use is proposed to completely occupy the Northern edge of the 1450 UGB. Government land is proposed to occupy the Southern end of the 1450 UGB and parts of the Northwestern corner. Regional land use sits in the Northeast, partially extending to bifurcate



Fig. 28. Existing land use





Fig. 29. Existing proposed land use by Amanah



Fig. 30. Existing alternative land use with the King Abdullah New District by Amanah





the residential fabric and eventually connecting to the government land use in the Northwestern corner. This particular linking portion is formed of regional green open space. There is an additional portion of regional land use located between the Northern edge of the airport and Southern edge of Jazan University towards the East. The industrial land use expands towards the East from its existing location to form a buffer between the residential and governmental land uses.

Large expanses of singular land use are commonly assigned at this level of planning. This classification of mono-use clusters creates a polarised development pattern in the city, divided by large infrastructural and natural land features. Further studies should be undertaken to plan for integration to achieve a balanced mix of uses. A mixed and integrated land use plan will support a more sustainable future for Jazan.

4.1.5 Vacant land

The large swathes of vacant land scattered across the urban fabric, emanating from ad-hoc developments and ineffective implementation of plans. The availability of vacant land presents an opportunity for city managers and landowners to capitalise on a limited resource. Developing on available vacant land will allow owners to avoid paying White Lands Tax and will improve infrastructural efficiency and reduce costs. The city as a whole benefits by becoming more compact, connected and integrated.

In the current built-up footprint, 6% or 1,987 hectares of vacant land remains available for development. At the UN-

Habitat recommended sustainable average density of 150p/ha, this area can accommodate approximately 298,050 additional people, which is more than double the current population of Jazan. Furthermore, Jazan Airport which is currently located within the urban fabric is proposed for relocation away from the city centre. The land area that the airport currently occupies amounts to approximately 450 hectares. At UN-Habitat recommended densities this amount of land can accommodate approximately 67,500 people, an increase of 50% over the current population.Together, the vacant land available in the current urban footprint and the airport site can accommodate 365,550 people; an increase of 168.7% over the current population. Based on the current population growth rate, the projected increase in population can easily be accommodated within the built footprint.

Future development should focus on infilling within the current built-up area of the city, utilising the residual vacant land in order to increase the overall urban density and, therefore, effectiveness of infrastructure. This will improve economic vibrancy and, in parallel, lower the costs for provision on highquality services to residents.



Undeveloped land



Fig. 31. Commercial and mixed-use distribution in Jazan





Fig. 32. Vacant and undevelopable land

4.2 Structuring Elements

4.2.1 Major infrastructure and economic nodes

Jazan's major functional infrastructure includes the airport, seaport and its well connected road network. The seaport is linked with agricultural trade and oil exports and the Abdullah Bin Abdulaziz Airport or Jazan Airport serves both national and international routes. Strong regional connections between Riyadh, Jeddah and Dammam and international flights to the United Arab Emirates and Egypt make the city mobile and connected. The road network is well connected to all regional urban centres and to the national road network.

The economic sectoral nodes of the city are distributed in clusters across the expanse of the built area. Within the urban core, the main economic drivers are commercial and retail services, the seaport, airport and industry. Beyond the core urban area, tourism becomes a major contributor to the economy. Tourism-related activities are strongly linked to the waterfront along the Red Sea through hotels, resorts and beaches. Jazan is also the launching point for visitors to the 80 Farasan Islands in the Red Sea, the main town of which is located 50 kilometres off the coast. Daily ferries, carrying passengers, goods and services form the critical link between the city of Jazan and the islands. These include government subsidised ferry services and informal services provided by private entrepreneurs.

Farming and agriculture related activities are also contributors to Jazan's economy, however, agriculture is largely confined to the Northeast of the city, closer to the 1450 UGB. Jazan University, located approximately 9 kilometres North of the city centre, is a critical economic contributor with 28,500 students. It should be noted, there is a high level strategic plan proposing a new economic city approximately 40 kilometres North of Jazan's city centre. The proposal also calls for a new airport to be built approximately 20 kilometres North of the city centre, situated between the economic city and Jazan City centre. The new airport will replace the existing airport located in the city centre. The city must proceed with caution before implementing this resource intensive proposal which could put the city under financial strain and propel it towards an unsustainable growth pattern.

4.2.2 Enviromental and topographic elements

Jazan has a tropical climate, that is hot and humid almost throughout the year. The average annual temperature is around 30.1°C. From November to February, temperatures become slightly cooler in the evenings, while in other months the temperature range is mild in winter and hot in summer. The average annual rainfall is approximately 206 mm. The topography of the city is relatively flat, interrupted only by a hill plateau directly West of the city centre, on the seafront. This hill plateau is formed of salt rocks, considered to be too soft to support the foundations of buildings. The was confirmed recently in the appearance of sinkholes. This salt dome is a major issue for the urban development of Jazan as it occupies valuable land in the heart of the city, disrupting connections and generating a discontinuous urban fabric.

There is a wadi network located approximately 10 kilometres North of the city centre. The network begins in the Eastern highlands, flowing from East to West, passing through agricultural lands and terminating in the Red Sea. The Red Sea coastline along Jazan is flat and forms a circuitous border from North to South. There are no distinctive coastal landforms such as coves, headlands, peninsulas, or bays. There are however, engineered articulations in the coastline related to the various development projects, current and future.

There is 40 hectares of agricultural land located on Northeast of the city centre, however, only a small portion is actively cultivated. Parts of these lands lie directly adjacent to the existing airport on its Eastern boundary.

Jazan faces many environmental risks, including flooding. This is of particular concern in the areas close to the university. Based on analysis, water flowing from the wadi system downstream is interrupted by developments such as the university campus, streets and residential blocks. The position of the university district and residential neighbourhoods in the path of natural flow of the wadi system makes them prone to flooding. Proper water channels and drainage infrastructure should be incorporated into these areas to mitigate this issue. Across the Kingdom, water is a scarce resource and should be managed with the best possible approaches that promote nature-based solutions. Water recycling plants should accompany the management system and be integrated into an appropriate development strategy and supported by the city.

There is currently a pervasive shortage of green open spaces across the urban footprint. Major public open spaces are located on the coastline and are not currently integrated with the urban fabric. A network of natural, green and open spaces, would not only contribute to the health and wellness of Jazan's inhabitants but would also positively impact the cost of operating the city. For example, more green space would increase the permeable surface for water absorption and reduce the heat island effect.

In summary, the main environmental issues to be addressed in Jazan are:







Fig. 33. Main roads and infrastructure



Fig. 34. Economic sectors in Jazan





- The capacity of the salt dome plateau for new construction. Recent media coverage has shown buildings collapsing and sinkholes appearing. Some areas had to be dismantled and relocated in another zone.
- 2. Flooding risks to the university district and residential blocks in the path of wadi flow.
- 3. Lack of green open spaces within the built-up urban fabric.
- 4. Lack of integration of the wadi system with the built-up urban fabric.
- 5. Preservation of agricultural lands.
- 6. Lack of connectivity and integrated coastline.

4.2.3 Existing and proposed land use patterns

Jazan's is regionally known primarily as an agricultural centre an important harbour city. Jazan's current land use assignments are largely residential, interspersed with some mixed-use, commercial, and recreational lands. The historic parts of Jazan that were built before 1970, follow the principles of good urbanism; a compact and dense central core with a mix of multiple uses. The city extensions that followed after the year 1990 have reduced the average density, and have engendered sprawl in mono-use clusters.

Jazan has an integrated network of amenities serving various industries such as agriculture, tourism, and trade. The residents have access to quality education facilities in

reference to both schools and the university. The city also hosts numerous hospitals and clinics providing quality healthcare for its residents.

Residential land use makes up approximately 43% of land in the city and is scattered along Jazan's entire length. The second highest dedication of land is to government uses - largely attributed to the size of the airport, the harbour and ARAMCO. Jazan University and other education facilities account for 7% of land use. The city has a relatively low percentage of mixeduses in the current plan, which should proportionately increase as the city grows over time and should be integrated with the existing urban fabric via infill.

The King Abdullah New District Proposal further aggravates patterns of sprawl in its proposition for distinct clusters of singular use developments that reach the extent of the 1450 UGB, approximately 20 kilometres from Jazan's city centre. These single-use clusters will form extensive suburban residential developments which are to be developed privately. There is also a small percentage of commercial and mixed-use and public space in the proposal. There are currently (November 2018) two designs for the masterplan under discussion. Both have about the same size and impact on the current city.

Implementation of this proposed plan will increase the residential land use of Jazan by more than 200%. However, there is no analysis of the interaction between the old city and the newly proposed expansion of the city or a comprehensive



Vacant land in Jazan represents an opportunity for the creation of sustainable developments







An analysis of Jazan's facilities and commercial distribution reveals certain patterns in the city structure. There is a distinct centre in the core of Jazan, which is also its historic centre. The second, most evident core is in the North surrounding Jazan University. This core is not yet as well established but has a variety of uses and facilities that can be leveraged to become a significant node. The third core is the industrial area, anchoring the city in the South.

The facilities and commercial uses are distributed largely throughout the city centre but can also be identified along the North-South routes. Carefully planned and even distribution along these major axes will create a contiguous urban fabric, increase access and reduce travel time for residents. In addition, the lack of public spaces and recreational land use along the major axes and the coast sets clear priorities for the future vision of the city. An accurate assessment of vacant land in the city centre could provide a solution to this issue.

4.2.4 Movement and accessibility

Jazan has a well connected and established road network. At the regional level, Jazan is directly linked to other regional growth centres of Sabia, 30 kilometres towards the North and Abu Arish, 30 kilometres towards the East. The agglomeration of Jazan, Sabia and Abu Arish forms a triangle within a larger system of cities. Sabia acts as a major cultural and historic node for the region and Abu Arish, located on a fertile agricultural plain is known for the production and export of fruit and vegetables. Outside of the triangle, 50 kilometres towards the Southeast, Ahud Al Masarihah is economically driven by agriculture and culture with the potential to become an industrial hub. Ahud Al Masarihah is also connected with Jazan along an established road corridor.

Within the built-up urban fabric, a robust road network also serves the city. King Abdul Aziz and King Fahd Roads are the two main transportation corridors that connect regional growth centres outlined above and converge in Jazan's city centre. Just over 60% of Jazan's population can access the commercial city centre within 15 minutes by driving and over 70% have access within 30 minutes by driving.

On foot, just under 2% or 2,264 inhabitants have access to the city's commercial centre within 5 minutes. 5% or 6,880 inhabitants have access to the city's commercial centre within 10 minutes. There is currently no public transportation system available for city residents. However, there is a proposed Bus Rapid Transport (BRT) network which will consist of three lines-Line 1, Line 2 and Line 3.

Accessibility analysis to public facilities, such as education and healthcare critical for citizens well being and quality of life,



The interstitial spaces under the infrastructure are usually unsafe areas at night





5-minute - 2,264 p

1.6%



10-minute -6,880 p

Fig. 36. Walking accessibility to the city centre





Fig. 37. Drivability map of the city

shows very positive results. Over 47% of the population are located within a ten minute walk to an educational facility, and over 86% are within a ten minute walk to a healthcare facility. Compared with many other Saudi cities, Jazan has a very high walkability rate, an advantage the city should continue to build on and develop sensible strategies to support walkability while the city grows.

4.2.5 The Jazan Plan

Jazan has a Structural Plan that aims to address future expansions, focusing on major land use issues, infrastructure and natural features. Natural features, such as the wadis and the coast are maintained and are organically meandering within the built-up areas of the city. In this way the coast line serves as a "blue anchor" and a major structural element for the city demonstrating an acknowledgement of its role as a positive and functional element that enhances natural water management.

Two large new recreational and green areas are also envisaged in the structural plan. The first of these is located approximately 2 kilometres North of the city centre at the corniche and the second, 4 kilometres South of the centre, stretching almost the length of the entire coast. Although the provision of public, green, and open space is always a positive motion, their connection to the urban fabric in this case is lacking and does not make them widely accessible. Therefore, it does not impact the lack of green spaces in the consolidated city or the need to relink the green and blue networks. Of important impact in the structural plan will be the proposed airport in the North of the city and the proposed railway situated along the coast line from North to the South and passing East of the Jazan City. These important transport propositions will enhance regional and international links between the North and South and consolidate the importance of the city in the region.

The plan also includes the development of Farasan Island, which is located approximately 40 kilometres in front of Jazan in the Red Sea and is dedicated to recreation, tourism and environmental protection.

The proposed land use of the Structural Plan for the Jazan Cityregion proposes a majority of residential land use that continues up to the edge of the DPB where it meets the proposed railway. In the Smaller clusters are also proposed as largely residential to the East of the railway and behind the DPB. The size of the proposed expansion must be critically reviewed as this such an expanse of monofunctional development will constitute sprawl and degrade the efficiency of the city.

Elements of the Structural Plan and the proposed land use can contribute positively to the development of the city, however, the proposed monofunctional quality and sheer quantity of the proposed land uses, could generate unwanted negative impacts on the citizenry, the environment and the economic success of the region. Careful analysis and impact studies should therefore be conducted for these new developments, to ensure potentially negative impacts are avoided.



Bad designed infrastructure creates divisions in the city





Fig. 39. Walking accessibility

4.2.6 Assessment of proposed transportation systems

There is currently an active proposal for a Bus Rapid Transit (BRT) system in Jazan. Though the recognition of the need for a public transport network is positive, the BRT system may not be the most suitable system for a population of 136,007.Public bus routes can support the current population of the city until development assists densification, at which time, the city might strategise a transition to a more sophisticated system.

The proposed BRT system is designed to improve capacity and reliability, in a flexible and cost effective manner. Jazan's BRT is proposed to comprise three lines, named numerically as such. Line 1 is proposed to cover a North-South route, connecting the airport to the university district. Within a 10-minute walk, 27,242 people or over 20% of the city's population will have access to Line 1 under the current densities and city structure. Line 2 is designed to run in an East-west direction and bends towards the South, connecting the airport with the seafront entertainment park. Within a 10-minute walk, 26,195 people or approximately 20% of the city's population will have access to Line 2 under the current conditions of density and distribution. Line 3 is proposed to originate in the city centre and split into two routes; the first route will link to the government hospital centre in the North, the second route will stretch to the 1450 UGB, directly East. Within a 10-minute walk, 26,671 people or over 19% of the city's population are estimated to have access to Line 3. In total 39% of the population have access to the proposed BRT lines within 10-minute walking distance.

As outlined above, it is essential to provide an efficient public transport system in Jazan. In accordance with the current size of the city, public bus routes can be planned to ensure efficiency and maximum reach. Following criteria must be studied and applied:

- 1. Ensure public transport lines are aligned with population density.
- 2. Ensure anchor points are well served and frequented, such as the airport and the university.
- 3. Public transport lines should be implemented in a phased manner, to match the development of the city.
- 4. Public transport lines should not be implemented in zones along the urban periphery that encourage sprawl.

4.3 Urban Density Scenarios

Crosscutting the diagnosis of the current urban conditions and the approved/submitted projects proposals, FSCP conducted a scenario-analysis for increased urban density. First, the current condition of the city has been examined to indicate conditions within a benchmark density that will form a comparative measure against which alternative scenarios can be assessed. Secondly, a scenario has been developed in line with projections based on approved planning instruments. Finally, an alternative scenario has been developed in which the density distribution meets UN-Habitat recommendations. This UN-Habitat scenario is based on the Five Principles for Sustainable Neighbourhood Planning, which are as follows:

- 1. Adequate space for streets and an efficient street network: The street network should occupy at least 30% of land and at least 18 kilometres of street length per kilometres²,
- 2. Highdensity: Atleast 15,000 p/km², that is 150 p/haor 61 p/acre,
- Mixed land use: At least 40% of floor space should be allocated for economic use in any neighbourhood,
- 4. Social mix: Availability of houses in different price ranges and tenures in any given neighbourhood to accommodate different incomes; 20% to 50% of residential floor area should be reserved for low-cost housing, and each tenure type should not exceed 50% of the total,
- 5. Limited land use specialisation: This is to limit single function blocks or neighbourhoods; single function blocks should cover less than 10% of any neighbourhood.

Current Condition

Currently, the population of Jazan is about 136,000 people on a built-up area of approximately 4,989 hectares. This generates a population density of 27 p/ha, which is less than one fifth of the UN-Habitat recommended density of 150 p/ ha. However, this density average is comparatively high when studied in relation to cities of similar size in Saudi Arabia.

Scenario 1: The Jazan Plan

The current annual population growth rate of 4.05%, implies a projected 2030 population of approximately 150,000 people. The total amount of development in the proposed land use plan covers approximately 24,478 hectares. Based on the projected population of 150,000 in 2030, the population density will drop to 6.1 p/ha within the built-up area, a dramatic decline in a density that is already low.

Scenario 2: UN-Habitat Recommendations

The UN-Habitat scenario supports sustainable neighbourhood planning for Jazan, promoting an increased density, in line with the average UN-Habitat recommended standard of 150 p/ha. The population of Jazan is expected to increase by only 14,000 people by 2030, in accordance with the current growth rate of 4,05%. To meet the recommended average density and accommodate the projected 2030 population size, the city requires an additional area of less than 100 hectares. There are 1,987 hectares of vacant land that exist inside the current built-up area. This scenario demonstrates, therefore, that it is not necessary to extend the city beyond the current urban footprint and suggests strategic interventions to support policies that would facilitate the densification of existing urban areas. The intention behind this strategy is to create resilient and sustainable nodes of densification which form a functioning, interrelated network. This assist the strategic distribution of the annual budget to different needs of the city and its citizens.




SCENARIO 1: THE JAZAN PLAN



SCENARIO 2: UN-HABITAT RECOMMENDED SCENARIO





population	ŤŤ	150,700
planned built-up area	₿Â	24,478 ha
average density on planned built-up area	† ₽	6.2 p/ha
average density on 1450 boundary + new area of development	†A	5.1 p/ha





STRATEGIC DIAGNOSIS



5.1 Identifying and Defining Main Strategic Issues

During the evidence-based and cross-scalar analysis, four main issues affecting sustainable urban development in Jazan were identified. These issues represent the strategic framing of a complex diagnosis, synthesised through three conceptual lenses. These lenses are firstly defined in their conceptual nature, and later contextualised by an examination of their spatial manifestation in Jazan, at different scales.

5.1.1 Unbalanced growth and development patterns

This often happens when a city grows rapidly, presenting a widespread sprawl phenomenon that manifests in inharmoniously balanced developments across its territorial extension. Dysfunctionalities in urban management, both institutionally and experientially, are brought to light. In this scenario, the city demonstrates low-density and does not perform effectively, its services and facilities are not well-balanced in distribution and accessibility, which results in inequitable citizenry experience. This condition additionally makes the provision and maintenance of basic services and transport infrastructure costly and challenging. In Jazan, these kind of urban sprawl can be identified towards the agricultural lands in the East, around the University in the North, and Industrial area in the South.

5.1.2 Divisions and lack of cohesion in city structure

In cases of unbalanced growth, sprawl, and inharmonious development, forms of non-contiguous and non-cohesive city structures tend to co-exist, without integration. Pockets of leapfrog development are widespread. Undeveloped land, overdimensioned infrastructures and/or large extensions of monofunctional developments, hinder the continuity of the city's fabric, and therefore, its social, economic, and ecological performance. As in cases of sprawl, this renders the equal provision of infrastructure and services to the entire city difficult and costly. The fragmentation phenomenon also spatially affects the social dimension of sustainability, creating urban inequalities and segregation in areas that lie at a distance to the largest hubs, and become isolated by a discontinuous urban landscape. In case of Jazan, presence of over-dimensioned infrastructure, current airport within the city's built-up, university in the North, salt dome plateau near the coast and large plots of vacant lands leads to a divided urban form.

5.1.3 Monofunctional and polarised development

When a city showcases a predominance of extended monofunctional zones and lacks in mixeduse areas, this implies a polarised development. This is particularly acute in cases in which monofunctional developments are distantly scattered and isolated from the rest of the city. In Jazan, the urban structure is characterised by monofunctional clusters of economic or social activity that amounts to socio-spatial polarisation, creating inequality with highly variable levels of access between different urban areas. Overall, various forms of polarised development result in inequality in a city, the most obvious example of which can be characterised by socio-economic segregations such as private compounds and gated communities, with high quantity and quality of services when compared to the majority of the consolidated city, in which they are lacking. Limited mixeduse areas in Jazan are corresponding to the central parts of the city, whereas there is a dangerous tendency in allocating extended monofunctional land use, especially referring to the Local Plan with its proposed large areas of exclusively residential land use.

5.1.4 Socio-ecological & economic imbalance

Each city is formed by complex social, economic and ecological systems. In a sustainable city, the balance between these three interrelated systems is maintained and enhanced over time. If any one system is given continued preference over the others, over time, a structural imbalance will emerge that alters the sustainable trajectory of the city's growth and development. This misalignment generates an issue in terms of water provision and food security, heavily impacting other socio-spatial aspects of the city's health. Segregation between agricultural lands and the urban fabric is a good example of this condition. The city does not interact with green space and is disconnected from farmlands by a strong boundary. A resilient city would integrate its natural and built elements, ensuring their balanced coexistence. In Jazan, the coastline represents a potential source of economic growth and social development together with the wadis, mountains, and agricultural land, but they currently lack integration amongst them, and with the overall urban fabric.





[SPRAWL]





Central area along King Abdulaziz road



5.2.1 Jazan's unbalanced growth & development patterns

Unbalanced growth and development patterns are clearly visible in Jazan, most notably in the sprawl areas towards the 1450 UGB and beyond, which leave a considerable amount of vacant land within the built-up area. Jazan has several settlements that can be categorised as leapfrog developments. These settlements are located on the South and East of the 1450 Boundary. Towards the North, the Jazan University and government regional service centre act as catalysts that encourage further sprawl of this kind.

Based on future land uses proposals, it is likely that this trend will continue and worsen over time. Close monitoring and review of future plans must be conducted to reduce or eliminate sprawl. For example, Jazan Economic City is proposed beyond the Northern edge of the city. This city will not only compete with the current city for resources but it will also encourage inefficient and unsustainable land management, as further developments are likely to leapfrog towards that area from Jazan. Jazan should instead aim to utilise existing vacant lands either within the current built-up area or within close proximity of the built-up area. If this kind of leapfrog expansion continues, the city will become more sprawled and less connected.

Urban sprawl causes inefficiency in urban management and an elevated financial cost for the government, accrued in delivery of infrastructure and public services. In a sprawled city, the cost of providing access to electricity, sewage, and clean water for the municipality is higher than in a compact city, and maintenance capacity is also affected as infrastructure is more widespread.

As stated above, there are 1,987 hectares of vacant land available within the the built-up area. Development should utilise available lands within the built-up area as a first priority before starting new developments on greenfield lands.



Sprawling development pattern near Jazan University



Sprawling development along regional road corridors



Sprawling development near Jazan Heritage Village





5.2.2 Division & lack of cohesion in Jazan's urban structure

There are a number of elements that cause division and prevent cohesion in Jazan's city structure. At the urban scale, overdimensioned infrastructure and large plots of vacant lands divide the urban form. The university in the North together with wadis, the salt dome plateau in the city centre near the sea, and airport land in the East of the city, also contribute to this fragmentation. These elements contribute to discontinuity at various degrees, characterising Jazan as an inconsistent and sparsely populated urban landscape that does not function at the appropriate human scale.

Large-scale infrastructure, such as highways and major transportation corridors, do not support the principles of a human-scale, walkable city. Engineered to maximise car speeds, these highways encourage developments in the form of superblocks, without any consideration for pedestrians and the human-scale. The quality and character of the public realm, adjacent to the oversized infrastructure does not support a well-connected urban fabric. The highways, which were intended to function as connectors, become barriers lacking sidewalks, crosswalks and other supporting infrastructure.

Isolated, large scale development projects, often built on privately owned lands contribute to the divisive nature of the city structure. These patches are generally monofunctional, and therefore lack a variety of programs. If not completely vacant, these areas often still create significant breaks in the urban fabric. Jazan University is one such example. Its large, singleuse campus located in the North of the city centre functions in complete isolation, without links to the surrounding context. In other cases, developments are internalised in their structure and layout and do not respond to the surrounding context, neglecting to provide any connections to the street interface on the outside.

To repair the city's fracture fabric, the municipality needs to develop appropriate urban design guidelines that support a pedestrian-friendly, walkable and well-connected, humanscale environment. In addition, appropriate incentives and regulations should be set in place and enforced with the goal of prioritising development on residual vacant land, while discouraging the practice of land-banking by enforcing existing White Lands policies.



Fragmentation due to overdimensioned infrastructure



Fragmentation due to vacant land in urban fabric





Divisive infrastructure

Fig. 41. Division & lack of cohesion in Jazan's urban structure

5.2.3 Jazan's monofunctional and polarised development

Jazan's current city centre is categorised as a mixed-use environment. The area exhibits a mixture of residential, commercial, and public facilities, showcasing an active urban area that supports a vibrant city life. This mix of uses in the central area serves the basic needs of citizens but is not sufficient. It remains the only mixed-use core in the developing city.

Jazan's current condition is characterised by a series of specialised monofunctional clusters with segregated uses and limited access. Extreme polarisations and monofunctional patterns have developed beyond the central urban footprint in accordance with the proposed land use plan. Monofunctional developments are emerging in all extremities of the city, referring, in particular, to large residential developments, the university campus, regional services and government lands. Planned extensions are expected to extend existing isolated developments, without introducing any mixed-uses. Extended monofunctional development negates opportunity for economic activity and prosperity, and therefore lack social diversity and a vibrant street life.

Research shows that such conditions also have an established tendency to create segregation. Segregation is epitomic of a system of which elements are isolated and unbalanced in distribution, creating polarisation of services, activities and access. This usually has deep social impacts, separating socioeconomic groups by area according to distance from centres and availability of services and facilities. Policies need to be developed to support integration and a mix of uses as the city grows. UN-Habitat recommends that 40% of floor area should be allocated to commercial uses in any neighbourhood. Developments in the outskirts need to be prevented, all new developments must be designed and planned with best practice principles of medium to high density and mixed land use planning. Without directed efforts, Jazan faces the threat of becoming ever more polarised and disconnected, instead of moving towards an inclusive and integrated urban fabric.



High concentration of mixed-use



Low concentration of mixed-use



Very low concentration of mixed-use





5.2.4 Socio-ecological and economic imbalance in Jazan

Jazan is situated close to agricultural fields and is served by three wadis in the Northeast that flow from East to West. However, these natural wadis and agricultural lands are completely disconnected from the urban fabric. The degradation of the natural wadi system and the loss of agricultural lands can expose Jazan to environmental risks such as flooding and loss of green cover. As Jazan continues to expand, efforts must be put in place to integrate the natural features into the built environment.

The largest natural feature of the city is the coastline, which should be envisioned as a social, economic and ecological driver for the city. At the city scale, the seafront has a sizable presence from North to South. Engineered modifications to the coastline due to new projects also alter the natural state of the coastal features in Jazan. Preserving the natural coastline should be of priority, as the environmental benefits of this are numerous, which include the preservation of the natural habitat for plants and marine life. Thorough analysis should be conducted to combat any negative effects of a modified, artificialised coastline.

Jazan City lacks green, open spaces within the built-up urban fabric. In addition, the existing green spaces are not wellconnected. If this were corrected, there is opportunity to form a consistent green network across the city. Networks of neighbourhood parks and greenways should be introduced to connect the built-up areas and the coastline, relinking green and blue networks. This could be achieved by selectively converting available vacant lands within the built-up areas into green, open spaces and linear parks to serve the community. Along these parks and green connectors, pedestrian-scale commercial activities and social facilities should be introduced, working as a comprehensive system and ultimately reducing the imbalance amongst social, ecological, and economic systems.

Overall, the protection and integration of natural resources in the planning of the city should be considered a priority and all new developments should respect the local ecology of Jazan.



Disconnected urban fabric with the coastline.



Natural wadis at risk



Natural coastline at risk





Farmland

Fig. 43. Socio-ecological and economic imbalance in Jazan

THE FUTURE CITY



6.1 Strategic Responses

After performing a strategic diagnosis, and identifying four main issues affecting the urban development of Jazan, four strategic recommendations were identified in response. Akin to the four strategic issues, the above-mentioned four strategic recommendations define the conceptual framing for a systemic and strategic level of solutions. Once defined in their conceptual nature, they are developed into a more detailed description, spatially interpreted and contextualised in Jazan, at the various scales. This is followed by a roadmap to implementation, in the form of an articulated Action Plan.

6.1.1 The Compact City

According to UN-Habitat principles, cities need to encourage spatial development strategies that take into account the need to guide urban extension, prioritising well-connected infrastructure and services. A Compact City is envisioned as a high-density urban settlement, characterised by mixed-use development, dense and vibrant urban areas, and well-distributed services and facilities, (such as hospitals, parks, schools). Establishing spatial and legal mechanisms to consolidate a Compact City can increase accessibility and walkability, therefore increasing use of public transport and public space, reducing congestion, boosting the local economy, and increasing interactions across society. Policies to promote urban compaction involve the promotion of urban regeneration, the revitalisation of town centres, restraint on development in rural and peripheral areas, promotion of higher densities and mixed-use development, and the concentration of urban development around public transport nodes.

6.1.4 The Connected City

The New Urban Agenda asks cities to commit to creating access to public spaces, public transport, housing, education and health facilities, public information, and communication. The Connected City is envisaged as a continuous, well-connected, and well-balanced network of neighbourhoods, each with parks and public spaces, and accommodating a diversity of overlapping private and public activities, shaping a healthy and vital urban environment. The street network has a major role in shaping the urban structure which, in turn, sets the development patterns and scales for blocks, connective nodes, buildings, open spaces, and landscape. This involves development of a well-organised street hierarchy with arterial routes and local streets that is based on different modes of transport and traffic speeds, acting as connectors that should be considered both in terms of accessibility and of social interactions. In this scenario, public transport can provide fast cross-town connections linking public areas and functional cores of the city to the surrounding neighbourhoods. Most importantly, these neighbourhoods in turn, should provide opportunities and conveniently located facilities that are accessible locally by the community, which in turn reduces the dependency on private vehicles.

6.1.2 The Inclusive City

The New Urban Agenda (NUA) requests commitment from cities in the promotion of diversity in cities and human settlements, to strengthen social cohesion, intercultural dialogue, understanding, tolerance, mutual respect, gender equality, innovation, entrepreneurship, inclusion, identity. safety, and the dignity of all people, while fostering liveability and a vibrant urban economy. Jazan needs to implement UN-Habitat Principles and develop a vibrant, sustainable and inclusive urban economy, building on endogenous potentials, competitive advantages, cultural heritage and local resources, as well as resource-efficient and resilient infrastructure; This can be achieved through the promotion of sustainable and inclusive industrial development and sustainable consumption and production patterns. This should be considered in parallel with fostering an enabling environment for businesses and innovation for provision of sustainable livelihoods.

6.1.3 The Resilient City

A Resilient City takes into consideration appropriate built form and physical infrastructure to increase resilience to the physical, social, and economic challenges that arise from depleting carbon-based fuels and climate change. As such, a Resilient City can be defined as a sustainable network of physical systems and communities,²² in which these physical systems consist of both the constructed and environmental components of the city. According to the New Urban Agenda (NUA), cities need to ensure environmental sustainability by promoting clean energy and sustainable use of land and resources in urban development, protecting ecosystems and biodiversity, promoting sustainable consumption and production patterns, reducing disaster risks, as well as mitigating and adapting to climate change. These elements amount to resilience. A Resilient City also supports and is mutually supported by its territorial systems, activating positive urban metabolism mechanisms, ensuring a reliable supply and balanced value chains. For Jazan, this means re-assessing the city's relationship with its natural features and their functions as social, ecological, and economic infrastructure, with specific reference to the blue and green networks.



[CONSOLIDATE]



[RE-STITCH]



[REBALANCE]





Restoration of the Turks castle



6.2.1 The Compact City: Consolidating and densifying development

A Compact city has several benefits. A Compact City is less dependent on private vehicular mobility, which in turn, reduces emissions, reduces energy consumption and provides the conditions for better public transport services. A Compact City also provides increased accessibility, allowing for the reuse of existing infrastructure and previously developed land, favouring regeneration of existing urban areas to improve urban vitality and quality of life. Currently, Jazan presents potential to consolidate its development, improving compactness of its existing core by limiting urban sprawl and in parallel, using available vacant land in areas with lower density to plan highdensity and mixed-use infill developments.

As such, this strategic recommendation focuses on the containment of growth and expansion, while applying an incremental strategic densification process. In order to implement such a strategy, development should be strongly restricted to within the current built-up area, through policies that establish a reduced growth boundary. This new boundary should mark the current edge of the urban fabric as the limit for approval of new projects, aiming at utilising all the available vacant land within it before expanding. In parallel, incentives promoting mixed-use, dense developments on existing vacant land should be set in place, while actively enforcing the "white lands tax" to push for development.

Lastly, to address the bifurcation of the Eastern edge of the city centre caused by the current airport land, it is recommended that the Amanah negotiate a land swap with the Ministry of Interior, which will take ownership of the area after the airport is relocated to the North. This would substantially increase the city's development capacity in the East and prevent future expansions from occuring outside the current urban footprint. Developing the airport land as an extension of the city, would re-consolidate the overall urban fabric, setting the preconditions for further densification.

These initiatives would set the conditions for increased density within a more compact and efficient city, relieving the Amanah of pressure created by an extended network of infrastructure to sprawling and scattered areas of new developments. In the long-term, this would prove cost-effective, improving infrastructure efficiency, reducing resource-consumption and reducing overall costs for the city's functions. Reduced infrastructure costs will provide further opportunities to redirect investments towards improvements and upgrades on the existing urban fabric.



Densifying the existing urban core of Jazan will increase economic activity and establish links with other nodes



2.

Creating secondary economic centres that can be linked to increase access and redistribute amentities



Densifying in the residential area will create demand for commerce and services





📕 📕 Densification area

Fig. 44. The Compact City: Consolidating and densifying development

6.2.2 The Connected City: Re-stitching the urban fabric

This strategy deals with the need to reconnect a divided urban structure and reduce spatial fragmentation, in order to create a more integrated and accessible urban structure for all citizens. Jazan's current urban structure lacks cohesion which reduces quality of life. The oversized highways cut the fabric, acting as barriers and separating parts of the city. They are also inefficient, as they are entirely disconnected from the secondary and tertiary road networks.

Jazan's road patterns lack hierarchy, further impeding connectivity and integration. To remedy this condition, this strategy suggests that the Prince Sultan Bin Abdulaziz Road, King Abdul Aziz Road / Al Matla Street Road and King Fahd Road that currently bisect the city, should be redesigned in both size and function, transforming them into boulevards in the city centre. Traffic from the North-South direction should be redirected away from the city centre in favour of a more human scale, pedestrian friendly environment near the urban core. Furthermore, a public transportation system (such as the proposed BRT or Tram) should be integrated within the right of way of these street sections. This would build a strong and integrated transportation backbone, connecting the university campus and the industrial zone with the city centre.

The main transportation backbone should include a pedestrian realm, offering users and citizens a safe, well-connected, walkable network of interwoven pedestrian, vehicular, and public mobility. Adding longitudinal and transversal connections towards the existing fabric, and completing them with a secondary public transport system (feeder-bus system), will help to re-stitch the city, ensuring last mile connectivity. The transformation of the over-dimensioned street network in the city centre, into green and pedestrian-friendly public transport spines would redefine them as public spaces for the previously fractured urban fabric.

To complete the transformation of the urban fabric to one of a more cohesive and less fragmented nature, the relation between the coast and the built-up area should be reconsidered. The coast should be reclaimed as a public space and as a centre for economic activity along which the city is structured. The coast offers transport connections to the Farasan Islands and has the potential to be developed as a quaint tourist destination.



Creating a central public transportation line will help organize the city and align new development in a strategic manner



Creating secondary links with public transport lines and multi-modal transversal links



Encouraging non-motorised modes of transport in residential areas to create a hierarchy of connections





Fig. 45. The Connected City: Re-stitching the urban fabric

6.2.3 The Inclusive City: Equalising access to services and opportunities

Jazan is currently highly polarised in its distribution of mixeduse, commercial, and public facilities. While the old city centre has areas of high concentration of public and commercial activities, other areas in the city are drastically lacking in these amenities. Monofunctional residential development located in the North, South and parts of the East, are examples of this condition. To respond to the polarisation, this strategy builds on the two preceeding, aiming to shape a more integrated and therefore, more inclusive and equal city. This can only be achieved by redistributing access to public facilities, jobs, and economic opportunities.

This implies that, together with densification, Jazan should encourage the creation of new minor centres, leveraging the new public transport system explained in the Connected City strategy. Once the main public transport is in place, completed with an efficient feeder system, a concentration of new public and commercial facilities around the network's nodes should be developed, defining a new hierarchy of functional centralities characterised by mixed-use and medium-high density.

Such a strategy would maximise accessibility for all citizens and urban users, bringing more people, services, and amenities together in close proximity, within high-density mixed-use areas. Major nodes and centralities at strategic points across the road network and the major public transportation lines would further support a robust and efficient system. These nodes should be appropriately dimensioned to encourage higher density commercial and mixed-use activities. The network and the number of nodes should be aligned with population density, providing citizens with ease of access by proximity to services and opportunities.

If these systems are implemented, movement of citizens will be eased, increasing walkability and accessibility. This would decrease polarisation, indirectly stimulating rebalanced socioeconomic segregation in the city.



The typical historic Souq is a good example of an inclusive public space.



Encourage equal participation of the people and stakeholders in all sectors.



Increase economic opportunities through mix of uses in the city and high density along public transportation.



Minor core- hub for public facilities

Fig. 46. The Inclusive City: Equalising access to services and opportunities



Jazan represents a complex system of spatial and functional relationships that affect and are affected by its economic productivity. This is related to the urban infrastructure, its social systems and its environmental resources and natural ecosystems. This strategy aims to promote the development of urban spatial frameworks that support sustainable management and use of land and natural resources. Building on the Connected City strategy, the Resilient City strategy aims to build a positive and functional relationship between the urban fabric and its natural features.

To achieve this, the city needs to respect, embrace and revitalise its natural hydrological system, and should aim to enhance the natural setting by reframing the coastline as a continuous and open linear park. Additionally, the new linear park should be linked and well-connected to an extensive network of new, smaller and well-distributed green public spaces. These should be well-spread across the urban fabric with good connections to urban areas that are accessible and include walkable infrastructure and public transportation. Furthermore, the coastline and the wadis should be naturalised as hydrological systems and connected with the city's green open spaces and the agricultural areas in the East of the urban boundary. A well connected and integrated coastline has the potential to constitute an important public space and generate a unique identity for the city.

Overall, protection and integration of natural resources in the planning of the city should be considered a priority and all new developments should only occur with respect for the local ecology of Jazan. A green economy approach could provide a useful framework, whereby decisions and actions should promote resource efficiency, effective environmental management and a better standard of living for residents. In these terms, the wadi, the coast, and the green public space networks, should be reconsidered as socio-ecological infrastructure, representing a potential source of economic growth and social development for the city that will also reduce the imbalance among social, ecological, and economic systems.



Jazan is the agricultural bowl of the region



The water wadis should have a green buffer to protect from encroachment



The sea and the coast as the natural asset and economic booster of the region should be protected







6.3 An Action Plan for Jazan

Transforming conceptual recommendations into concrete implementation strategies requires detailed systemic actions, that can incrementally trigger the envisaged spatial, economic, and social transformations. As such, an action plan that is rooted in the four strategic recommendations and grounded in a series of systematically scaffolded interventions for Jazan, serves as a guide for the development of an integrated and resilient city.

The action plan outlines three systemic actions, developed specifically for Jazan. Although all the strategic actions target specific interventions, (that can trigger a structural change in Jazan's development trajectory), there are conceptual differences in the way that they were conceived. The three actions are defined as:

- ACTION 1: Create an efficient public transportation backbone
- ACTION 2: Densify, connect, and create new centres
- ACTION 3: Create a diffused and well integrated blue and green infrastructure system

Actions 1 and 2 address the need for a system of distributed interventions that address the issue of sprawl and segregation in the city. The implementation of TOD to provide key intermodal hubs and densification along a well-considered public transportation network, acts at the metropolitan scale. Simultaneously, action 3 will focus on micro-scale interventions that will foster socio-ecological rehabilitation through the development of a public space network. These actions would change and diversify economies at the neighbourhood scale, through a timely and specific programme of implementation in Jazan.

The action plan therefore, creates synchronised impact at two scales: the Jazan Metropolitan Area and the neighbourhood. It supports the retrofitting of existing infrastructure with multiple purposes, rebuilding the relationships between different city users, improving integration of the urban outskirts with the inner city, improving transport and mobility networks, and expanding financing and legal instruments that support all of these transformations.



Spatial alternatives for the future urban development of Jazan



6.4 Three Systemic Actions for Structural Change

6.4.1 Action 1: Create an efficient public transportation backbone

Action 1 focuses on the need to restructure the city's street networks and mobility patterns. Each step of this action aims to guide the structural transformation of the city through the transformation of the major connection from the North of the city to the South, re-orientate movement patterns and create pedestrian friendly streets connecting to the historic centre. Turning a physical barrier from the hinterland to the coast into a unifying and connecting element is key for an effective structural urban transformation of Jazan's development patterns, and to generate a healthier pattern of growth for the city.

1.1 Establish a linear public transport backbone on the North-South axis

The first step proposes the development of a North-South spine, connecting the North and South with the centre, transforming major roads into boulevards with an integrated BRT as the public transportation spine for the city. The initial focal point for this transformation is proposed to be the university campus in the North, connecting via Prince Mohammed Bin Nasser Road, leading into Prince Sultan Road and ending at the industrial zone in the South. Simultaneously, car traffic from the North to the South should be redirected to peripheral roads, such as King Fahd Road, relieving the city centre of traffic.

1.2 Strategically determine public transportation nodes and link to a secondary public transport network

Designs for the central corridor should be developed in parallel with the establishment of the main public transportation stops. This new primary mobility spine would help to establish a spatial hierarchy and orientate development in a way that provides logical links to secondary and tertiary networks. A series of hubs or nodes must be created based on catchment capacity and strategic location. Defining the nodes would facilitate the implementation of a secondary feeder network, that would pass through the nodes as interchange stations. This secondary network will provide capillary access to further distributed neighbourhoods, connecting them with the inner built-up areas of the city.

1.3 Reorganise the street hierarchy and reduce road corridor size to avoid fragmentation

Once the public transport network is in place, the overall street hierarchy of the city should be reorganised to provide alternative routes and flows of traffic across the city. This would re-orientate the city's structure around movement hierarchies, ensuring that it serves a majority of the population. Jazan's over-dimensioned roads that connect to the city centre should be rescaled and re-dimensioned to reduce high speeds. Their redesign should transform them into inner-city boulevards that should incorporate commercial activities, recreational open spaces and a pedestrian-friendly public realm.



The linear public transport system will act as the main backbone of the city, connecting from north to south, with different urban centres of activity around the stops and the line



The second step is to link and create transversal connections from east to west, with feeder buses that will share multi-modal stations with the BRT line.



Commercial activity and high density will be allocated in the secondary streets and around the public transportation.



Fig. 49. Action 1: Create an efficient public transportation backbone

6.4.2 Action 2: Densify, connect, and create new centres

Action 2 promotes an incremental increase in urban density and the creation of a new system of centralities around the proposed major transport nodes. Building on Action 1, which sets the preconditions for establishing a denser, wellconnected and rebalanced urban fabric, action 2 promotes TOD development and incentivises residential densification in the areas within walkable access to public transport. In support of this strategic densification, economic incentives and legal instruments need to be set in place to promote redevelopment of the existing fabric into mixed-use centralities concentrated around transport nodes and development of appropriately located vacant land. This process will be supported by the enforcement of strong development boundaries that limit the extension of the city. As such, Action 2 identifies priority areas to operationalise the Transport Oriented Development approach to Jazan's strategic densification:

2.1 Promote dense and mixed-use developments concentrated around the public transport network

Densification should be accelerated around the entire public transport system via utilisation of the available vacant land. A hierarchy of dense mixed-use centres should be developed along the public transport network, particularly along the new North-South transportation backbone. Introduction of mixed land use must be focused primarily on the above defined nodes. Secondary nodes should be distributed to rebalance access to services, facilities, and jobs across the city. Public facilities such as health, education and social services, will need to be located within these new centres to counteract polarisation and attract businesses and residents to these new urban nodes.

2.2 Densify along the waterfront and Corniche

Selected locations along the waterfront should be developed to become major centres for seafront related multifunctional activities. The Northwest and the Southwest of the city centre, along the King Fahd Road and other central boulevards, should be densified to promote such activities that capitalise on the proximity to the seafront, generating economic activity and building social capital for the city.

2.3 Enhance waterfront development around fisherman's port

The fisherman's port is a marker of traditional and local characteristics of Jazan. It has potential to attract tourists as well as residents. This strategy is further supported by the existing specialised markets in the vicinity. A mixed-use, waterfront development would create a hub for touristic activities. Connection to the Cornishe, other recreational areas and the ferry terminal to the Farasan islands should to be strengthened. This area's transformation into a dense and vibrant touristic centre, would benefit the entire city of Jazan, diversifying its economic base by tapping into its potential as a coastal tourist city.



Densifying around public transport line with commercial activity and mixed land use



Allowing mixed use and seafront related activities to activate the waterfront of Jazan



Upgrade and develop the area around the fisherman's port and the waterfront with mixed use and touristic facilities.



6.4.3 Action 3: Create a diffused and well-integrated blue and green infrastructure system

The focus of Action 3 is to promote the development of urban spatial frameworks that support sustainable management and use of natural resources. This action would trigger urban resilience and environmental sustainability. This also supports connectivity, which reduces financial, environmental and public health costs associated with inefficient mobility. This is because urban naturalisation and improved connectivity reduces congestion, air pollution, urban heat island effects, and noise. To address the relationship between the urban structure and its natural features, a network of public spaces should be installed to connect the wadi's hydrological system with the coast. The coast should be considered as a defining attribute in the city's character. The action is broken down into three steps, each of which builds on the previous actions:

3.1 Preserving existing natural coastline

The coast should be upgraded to function as the primary public space for the city and as a structuring element for the city's linear character. This natural spatial feature should be respected and preserved from the threat of urban development plans that may engulf or disrupt the natural ecosystems or render the coastline inaccessible to the public.

3.2 Re-linking the blue and green network

The wadi network located in the North end of the city should be carefully re-integrated into the urban fabric. The wadi system should be transformed into a multi-functional linear park that can serve as open space for the residents and students of the university, improving their quality of life. A systematic plan to establish a green network that would relink urban and territorial ecosystems with the coast line and the wider region, should be studied and implemented.

3.3 Complete the green network by greening streetscapes and linking major public spaces

A green connection should be introduced into the city along major transportation lines in the form of pedestrian boulevards and landscape elements that provide shade, conserve resources and affect the urban microclimate via reduced urban heat island effect. The salt dome, located in close proximity to the coast and the city centre, could potentially become an element of open public space in the city, as it cannot support built development. The vacant lands in the city could also function as interstitial green spaces in close proximity to amenities and public transport.



Protect the ecological environment of the marine ecosystem and the coastline.



Use vacant lands and overdimensioned streets to upgrade them with public activities as green links in the city



Connect the public spaces and the coastline to set up a green network.



Fig. 51. Action 3: Create a diffused and well-integrated blue and green infrastructure system





7.1 Spatial Recommendations

7.1.1 A strategic view of the Jazan Region

The location of Jazan between the coast and the mountains provides the region with a multitude of opportunities, as well as challenges. The region is rich in natural assets, varying from the coastline, with the important harbour of Jazan, to agriculture practiced in the mountains. It is recommended that the city consider creating a spatial development concept for the entire region, focussing on the specific strengths, assets and opportunities of the coastal zone (including the islands), metropolitan and mountainous areas.

In this context, it may be helpful to study international cases of regions that are of similar character and physical profiles to Jazan. This knowledge exchange and capacity development may help authorities, regional and local stakeholders to create an integrated strategy and development plan for the Jazan Region.

This strategy should consider developing the area between Jazan and bordering Yemen as a model for cross-border cooperation. Success of this initiative is premised on international cooperation between both countries, however, if this is achieved, the economic and social development of the entire region of Jazan and of the North-western territory of Yemen can benefit from cross-border cooperation. Here again, it may be helpful to consider international experiences and case studies in cross border cooperation. In this context, KSA should also consider developing a stronger system of public transport, not only in the city of Jazan but within the entire region and along the sea coast towards the North. This could be complemented later by a link with Yemen in the South.

The establishment of Jazan Economic City is an added advantage to the region and the Kingdom. As prescribed in the Kingdom's Vision 2030 under the agenda for Integrating Regionally and Internationally, Jazan Economic City will open up stronger channels for both local and foreign investments. This economic city is just one of many means to foster partnerships and facilitate the smooth flow of goods, people, and capital between the Kingdom of Saudi Arabia, the Gulf Cooperation Council and other Arab countries.

Enhancing agriculture as a major economic sector in the Region can contribute to Jazan's economic prosperity. Coffee has been a growing contributor in the agricultural sector, however, it was not identified as a key regional GDP contributor in the 2014 SAGIA report for the Jazan Region. In small-scale patches, the mountains of the region of Jazan are rich with agricultural resources, the most prominent of which are coffee plantations. These are a symbol of hospitality and enjoyment among the people of the area. The Jazan Region aims to reach international markets with its coffee product, in order to generate substantial revenue for the region and the kingdom as a whole. The region should recommend sustainable agricultural practices, which would not only boost the sector but also create more job opportunities, which provides a key economic indicator.



Agriculture fields in the region


Workshop presentation in Jazan with stakeholders and ministers

7.1.2 Towards Jazan, a Sustainable Waterfront City

The strategic vision for Jazan's future endorses the development of urban spatial frameworks that promote sustainable planning initiatives such as the introduction of a public transportation system and densification of city centres to ensure a compact urban form and a balance of well integrated open spaces within the city. A more compact urban form, structured along public transport networks, would support sustainable management of natural resources, land, urban greening and improved resilience. New policy and regulatory frameworks will guide and support such urban development and enhance Jazan's importance in the region and its unique identity as a waterfront city.

The Action Plan provides fundamental principles to structure urban growth and ensure the long-term sustainability and competitive success of Jazan. Both the strategic vision and the Action Plan strengthen four fundamental impediments in Jazan's development: unbalanced urban growth, fragmentation, spatial inequality and low resilience. It translates the strategy into a sequence of systematic actions, which, if implemented, would enable the strategic vision to become a reality, ensuring a future for the city that is compact, well connected and resilient.

A well-established public transportation network would support the densification of the urban fabric and increase

accessibility and walkability within the revitalised central areas. Mixed-use nodes should be promoted at strategic locations along public transport lines that can boost the local economy and interactions. To further aid densification of existing builtup areas in the centre, incremental development of vacant land within the city's footprint should be heavily promoted and most importantly, expansion of the urban area must be restricted to retain development within the established boundaries. The dismantled areas around the salt plateau should be upgraded and evaluated against best practice examples, with a thorough public participation process to involve the community.

To promote urban resilience and environmental sustainability, water management policies must be introduced and the wadi system and coast must be protected and integrated into the green network of the city. Vacant land should be utilised to connect the green network and create vital links to major public spaces within the city. Punctual interventions on public spaces should be promoted, including a planting strategy on streetscapes. Incrementally greening the city, whilst reestablishing a healthy and functioning relationship between the built and the natural environments, will enhance and rebalance the ecological, social, and economic dimensions of Jazan's fabric, providing a healthy and productive urban environment for its inhabitants and visitors.



Coastline of the city



7.2 Institutional and Legal Recommendations

Jazan would benefit from both fiscal and jurisdictional decentralisation to facilitate independent and innovative solutions to urban social problems at the Amanah level. This should entail:

- i. The transfer of local planning power, authority and function from MoMRA to the Amanah, with provision for independent action without recourse to effectively address community needs. This is supported by the New Urban Agenda, which specifies that territorial urban design and planning processes should be led by sub-national and local governments, though their implementation will require coordination with all spheres of governments with participation from civil society, the public sector and other relevant stakeholders.
- ii. The Jazan Amanah could be strengthened through enhanced human resources capacity to improve the enforcement of development control, and by forming an executive and administrative body within the Amanah, to streamline its vertical and horizontal coordination with other planning authorities, to improve the quality of project implementation.
- iii. Fiscal decentralisation, which gives autonomy to the Amanah to source funds to finance development activities. Revenue generation activities in cities may also include taxes and levies. Urban areas should be allowed to collect some form of property taxes to fund development activities. The recent White Lands Act that imposes fees on undeveloped plots in urban areas to tackle land speculation, housing shortage and indiscriminate land development, shows that regulatory mechanisms can be leveraged to generate revenue, while fostering an efficient development framework.
- iv. Opening of avenues for actors, including the private and voluntary sector and the general community, to participate in decisions regarding projects that affect them.

The mere existence of the laws in KSA will not guarantee sustainable urban development as they must additionally be functionally effective. This requires that they be precise in achieving their intended results, clear, consistent and simple to understand. There is a need for a functionally effective urban planning law that, inter alia:

- Is sensitive to participatory city-wide slum upgrading and contains sound fiscal mechanisms to finance this policy initiative;
- Introduces incentives/requirements that will enable more compact city growth;
- Defines clear institutional roles and responsibilities at each level;

- Enforces linkage between all levels of plans (nationalregional-local);
- Provides effective coordination and monitoring mechanisms;
- Increases meaningful public participation and engagement in planning

The legal framework also needs to enshrine an acceptable mode of public participation in public decision-making to foster equality and inclusion. The consolidation of the urban legislation would also lend legitimacy to the plans that the Jazan relies upon. The city of Jazan could benefit from detailed plans for several key areas of the city, such as the seafront and tourist areas, which should be implemented through sound urban design guidelines that encourage integration of these areas with the rest of the city.

Revising the Urban Growth Boundary Law to include clear criteria on its definition would enhance technical and vertical accountability. The Law also needs to place more emphasis on establishing the Development Protection Boundary as a no-development zone, not only to prevent haphazard development but also to discourage the advantage taken by private interests from laxity in the legal text. These initiatives will strengthen policy formulation designed to move the city towards a future that is more sustainable, compact and densely populated.

Primarily, a post-legislative scrutiny of the urban growth boundary law should be undertaken to assess whether it has met its policy objectives. This could, in turn, inform the legal reform process and planning policy options.



Workshop in Jazan with stakeholders and ministers

7.3 Financial Recommendations

In 2015, KSA began implementing reforms aimed at creating sustainable local public finance. The central government continues to promote strategies to increase own-source revenue at the local level, through better tax administration and economic diversification.

Jazan's public finance priorities are closely aligned with Saudi Arabia's larger national development goals, which include supporting SMEs in key sectors such as logistics, agriculture and food processing, and tourism. Therefore, expanding the public sector's capacity to finance essential local infrastructures and projects supporting development in these areas is an imperative for the city.

International experience within enhancing own-source revenue through a variety of tax mechanisms that harness local financial resources for public use are promising,²³ (specifically, through the taxation of real estate value capture mechanisms). Although some cities in the Kingdom have been implementing new property taxes such as the white lands tax, exploring other tax instruments should be a priority for Jazan, in order to generate a diverse income stream portfolio.²⁴

Introducing land-based taxation establishes reliable own-source revenue streams for local governments. Moreover, the benefits associated with development projects (e.g. public transportation, public facilities and social infrastructure) are often multiplied by the positive externalities and value created by investment in sustainable and accessible urban spaces (directing a portion of land value increases back into the government revenue stream).²⁵ UN-Habitat suggests Jazan makes use of land-based tax mechanisms (i.e. betterment levies) in public projects.

Public infrastructure such as transportation systems can spur adjacent residential and commercial development, enhance mixed land use and create jobs. Local development driven by public projects can also produce increases in land value and indirectly engender a number of other community benefits (see figure 54).²⁶



Source: United Nations Human Settlements Programme (2018) Fig. 53. Components of mixed land use



Public spaces in the waterfront

Case Examples	Key Findings
United Arab Emirates Cairo, Egypt	Urban development that included retail facilities resulted in a price premium of 15 – 20 percent. Schools increased residential land prices by approximately 13 percent Walkability within a residential community increases home values by up to 9 percent
Bogotá, Colombia	Research suggests that for every additional 5 minutes of walking time to a public transportation station, rental prices fell by 6.8 - 9.3 percent

Rodríguez and Targa (2004); Colliers International (2017)

Fig. 54. The impact of infrastructure development on land value

While betterment levies are well suited for infrastructure projects, fiscal instruments such as waste management fees, parking fees and congestion fees are useful tools in the process of mobilising local revenue, reducing vehicle dependency and increasing pedestrian traffic, especially in commercial and leisure areas (see figure 55).

Several finance tools are available to local governments interested in expanding own-source revenue. Municipal governments can maximise the benefits of these instruments by:

- 1. Coordinating and collaborating with different levels of government to connect national strategies to local priorities. For example, establishing a local liaison office, or a local PPP unit linked to the National Centre for Privatization in charge of proposing, implementing, and monitoring PPP projects.
- Using a holistic approach. PPPs should be focused on linking infrastructure investment and land development, thus maximising benefits that correspond with mixed land use.
- 3. Investing in capacity building and improving tax administration.²⁷
- 4. Tailoring fiscal monitoring instruments according to local needs (e.g., fiscal cadaster in Bogotá, Colombia).²⁸

Lastly, coordination among planning, legal/regulatory frameworks and local finance is crucial to create the necessary local conditions for sustainable and equitable development, as outlined in the New Urban Agenda.²⁹

CASE STUDIES AND BEST PRACTICES

WASTE MANAGEMENT

In the Tamil Nadu State of India, a waste management project proposed the central government (35 percent) and the state government (15 percent) share 50 percent of the total project costs. A private entity (via a PPP) would provide the remaining 50 percent of project funding. The private concessionaire would be responsible for planning, designing, building, financing, operating, and maintaining the municipal solid waste management facility for the concession period. Land would be provided by the municipality through an annual lease as specified by the Government of Tamil Nadu.

PARKING FEES

Chicago leased 34,500 curb side parking metres to the bank Morgan Stanley for 75 years, trading metre revenues for an upfront payment of nearly USD \$1.16 billion. This type of PPP contract includes a fixed schedule of metre rate increases, which raised rates two to four-fold by 2013. As a result, Chicago had the highest curb side metre rates in the United States. Metres were netting USD \$20 million annually while Morgan Stanley managed pricing and maintenance of the metres.

CONGESTION FEES

In 2007, Stockholm introduced a cordon pricing-based scheme to reduce congestion, local pollution, and generate local revenue. Following the introduction of the cordon, traffic decreased by 19 percent in the first year in addition to generating € 59 million annually. In Singapore, the implementation of an Area Licensing System (ALS) reduced traffic from 12,400 vehicles in May 1995 to 7,300 vehicles in August 1995 during restricted hours. Moreover, revenue from the sale of area licenses amounted to US\$ 47 million with capital costs were US \$ 6.6 million in 1975 with an additional US \$17 million from ALS revisions in 1989.

Source: Ernst and Young Pvt Ltd., Ministry of Urban Development of the Government of India, & the Confederation of Indian Industry. Compendium on public private partnerships in urban Infrastructure: case studies. (2017). World Bank. Washington, DC.; Weinberger, R., Kaehny, J., & Rugo, M. (2010). U.S. parking policies: an overview of management strategies. Institute for Transportation and Development Policy. New York, NY; Croci, E. (2016). Urban Road Pricing: A Comparative Study on the Experiences of London, Stockholm and Milan. Transportation Research Procedia 14, 253-262.; Phang, S., & Toh, R.S. (2004). Road Congestion Pricing in Singapore: 1975-2003. Transportation Journal, 43(2), 16-25.

ANNEX ANNEX



8.1 Picture Credits

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8.3 Notes and References

- 1 Jazan Regional Economic Report (2014)
- 2 Represent the instructions issued by a Minister, his representative or any official of the Ministry to announce new regulations and updates regarding any intent or action to be undertaken.
- 3 These are located inside the eastern section of the city centre some of these buildings are distributed along the regional roads of Jazan.
- 4 According to Article 7 and 8 of Regional Law, the Minister of Interior chairs the meeting with all regional Amirs to discuss issues affecting each region and the general services required.
- 5 FSCP Workshop in Jazan, 2018.
- 6 Royal Decree No M/4 dated 24 November 2015 (the "Law") and Council of Ministers Decision No. 377 dated 13 June 2016 (the "Regulations")
- 7 Royal Decree of 1975.
- 8 See Royal Decree No. (1663) of 1976.
- 9 A line-item budget lists, in vertical columns, each of the city's revenue sources and each of the types of items such as capital outlays, contractual services, personal services etc. the city will purchase during the fiscal year.
- 10 Chapter 5 of the State of Saudi Cities Report, "Managing Urban Transformation in Saudi Arabia The Role of Urban Governance (2018)" pg. 16.
- 11 See Article 5 of the Law of Regions to Royal Order No. A/92 (1993).
- 12 It consists of a) the Prince/Governor of the Region as president; b) Deputy Governor of the region as the vice president; c) Deputy Mayor of the Emirate/AMARAH; d) Heads of government authorities in the Region who are determined pursuant to a decision issued by the Prime Minister according to the directives of the Minister of Interior; and e) Ten citizens who are scholars, experts and specialists and are appointed by order of the Prime Minister based on the nomination of the Prince of the Region and the approval of the Minister of the Interior, for a renewable four year term.
- 13 See ibid n.15, Article 23
- 14 The contribution of Jazan Region to national GDP is 1.6 percent. Saudi Arabian General Investment Authority. (2014). Makkah Region Economic Report 2014. The Kingdom of Saudi Arabia.
- 15 Industrial development, food processing, logistics and waste recyclicng, and tourism are priorities for local economy in Jazan and were key topics discussed during the Rapid Planning Studio workshop held in Jazan (October 2018).
- 16 Each of the 13 regions is divided into governorates and the region capital. The capital of the region is governed by an Amanah (municipality), which is headed by a mayor.
- 17 Approved 2016 Budget for Jazan, Ministry of Finance, The Kingdom of Saudi Arabia; In 2017, rental facilities accounted for 72% of Jazan's ownsource revenue. Jazan Amanah, The Kingdom of Saudi Arabia.
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- 23 Potential revenue contribution through immovable property taxation is 2.1% of GDP in high-income countries, while in middle-income countries it contributes an additional 0.6% to GDP. Norregaard, J. (2013). Taxing immovable property revenue and implementation challenges. (No. 13-129). International Monetary Fund. Washington, DC.; Walters, L. (2016). Leveraging land: land-based finance for local governments. United Nations Human Settlements Programme. Nairobi, Kenya.

- 24 Under the new law approved in 2015, owners of empty plots of urban land designated for residential or commercial use in towns and cities will have to pay an annual tax of 2.5% of land value. The land tax applies to a plot size equal to or greater than 10,000 square metres. It has been adopted in the cities of Riyadh, Jeddah and Dammam; United Nations Human Settlements Programme. (2016). Finance for City Leaders Handbook, Nairobi, Kenya: United Nations Human Settlements Programme.
- 25 Walters, L., Barnard, M.D., Doty, D., du Plessis, J., Haile, S., Hallam, D., Hooper, J., Kebede, G., Lee, B., Ochong, R., Paterson, L., Sietchiping, R., & Wallentine, A. (2016). Leveraging Land: Land-Based Finance for Local Governments A Reader. United Nations Human Settlements Programme.
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