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البلدية و القروية
Ministry of Municipal & Rural Affairs

AL-BAHA

City Profile



Future Saudi Cities Programme
City Profiles Series: **Al Baha**

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وزارة الشؤون
البلدية و القروية
Ministry of Municipal & Rural Affairs

مستقبل المدن السعودية
FUTURE SAUDI CITIES



UN HABITAT
FOR A BETTER URBAN FUTURE

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AL BAHHA

الباحة



FUTURE SAUDI CITIES PROGRAMME

CITY PROFILE



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INTRODUCTION **1**



2.1 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.

2.2 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.

2.3 Objectives of the City Profile Report

2.3.1 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 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 multi-scalar 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.

2.3.2 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



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Structures in the historic settlements

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 evidence-based 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 cross-referenced with multi-scalar GIS spatial analysis, to define the above-mentioned ad-hoc strategy.

2.4 City Profile Methodology

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



Workshop discussion in Al Baha with stakeholders and ministries

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.

2.4.2 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;
- Al Baha Regional Plan;
- Al Baha Structural Plan;
- Al Baha Local Plan

2.4.3 The City Prosperity Index assessment report

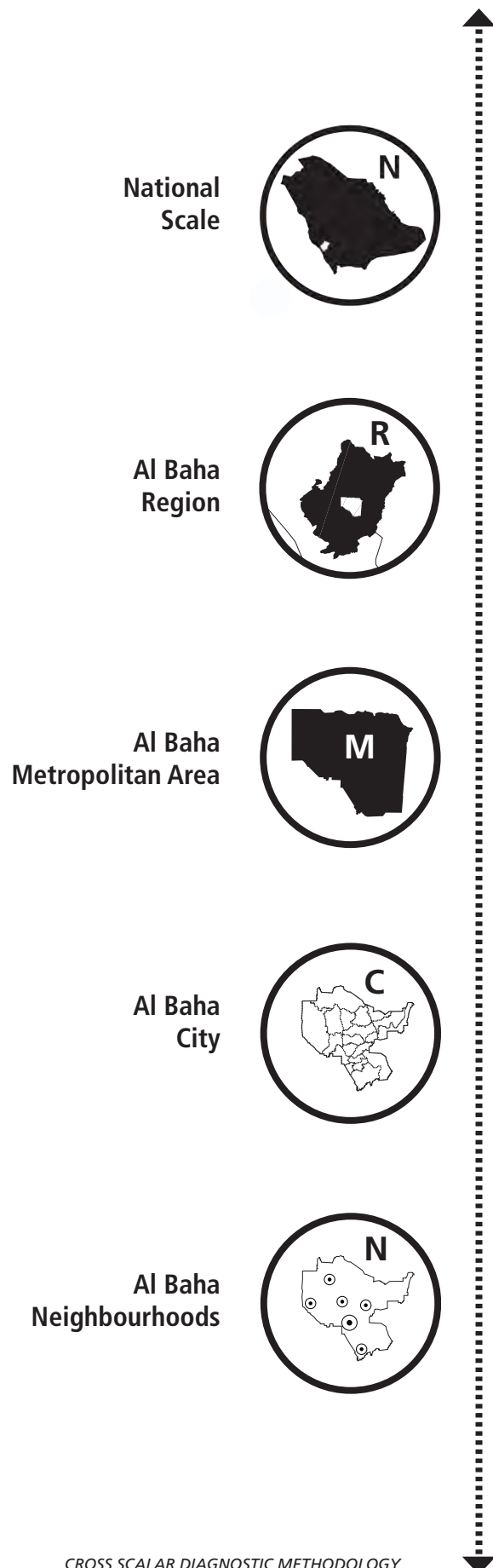
The City Prosperity Index is made up of six dimensions that serve to define targets and goals that can support the formulation of evidence-based policies, including the definition of city-visions and long-term plans that are both ambitious and measurable. The six dimensions are:

- 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 Taif. There are ten detailed spatial indicators at the FSCP city profile level that link into the 72 broad indicators of CPI assessment.

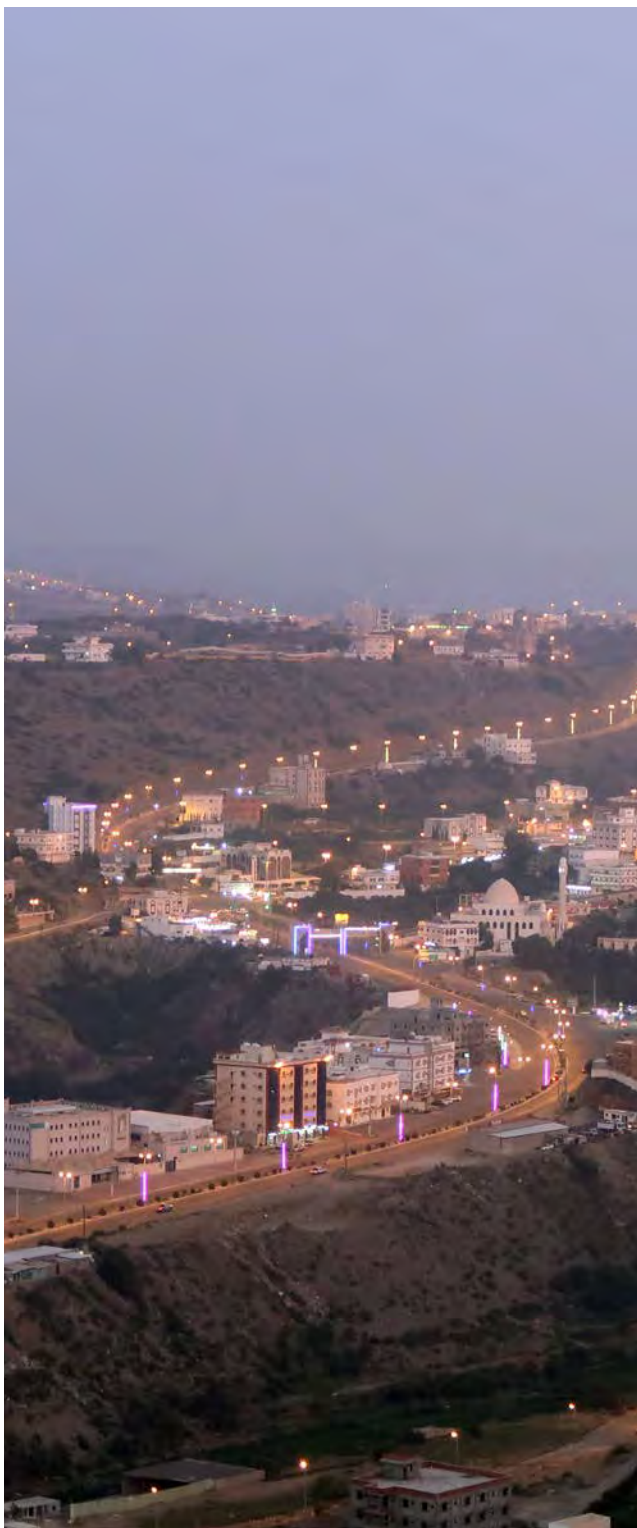
2.4.4 The GIS spatial analysis

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 weaknesses and strengths of the urban system and the main issues to be addressed. The effect of proposals for future development can also be assessed in terms of the same indicators.



NATIONAL AND REGIONAL SPATIAL CONTEXT

2





3.1 The Region’s Role in the Kingdom of Saudi Arabia

3.1.1 Historical background

Al Baha is located in the Hejaz Region of Saudi Arabia, rich in history and culture. The southwestern Al-Baha province is one of the Gulf region’s most eye-catching archaeological sites, where many ancient stone villages and citadels, testimony of a rich past, are disseminated on the top of the hills and mountains characterising the region.

3.1.2 Geography and location

The Al Baha Region is located in the Southwest of Saudi Arabia, bordered by the Makkah Region in the North and West and by Asir in the South and East. The region is characterized by its natural geography and climate and is divided into two dominant sectors, Sarah and Tihama, by a huge rock slope. The Sarah sector ranges in height from 1,500 to 2,500 metres above sea level. It is one of the geographically smallest regions of the Kingdom, with an estimated area of 36,000 square kilometres, or 1.6% of the total area in the Kingdom. The regional capital of Al Baha City is one of the Kingdom’s prime tourist attractions.

3.1.3 Demographic background

According to the Department of Statistics and Information, the total population of the Al Baha Region has reached an estimated 461,000 people, representing 1.76% of the 2014 Kingdom population of 30,800,000. The regional Saudi population is estimated at 386,000 persons or 83%. Non-Saudis are estimated at 75,000 persons or 17%. The population of Al Baha Governorate represents 25.2% of the total regional population, followed by Al Mekhoah at 17.1%, Biljurschi at 15.9%, Gulwa at 14.1%, Almendag at 11.4%, Al Aqiq at 8.7% and Al Qura at 7.6%. The regional Al Baha population growth rate between 2004 and 2014 was 1.74%, though the region is not considered to possess notable pull for interregional migration.

The Amanah reports that the population of Al Baha City has grown incrementally to approximately 111,173 people. The compositional density of the city is 40.8 p/ha in the built-up area and 3.45 p/ha within the 1450 Urban Growth Boundary. At a current growth rate of 1.74%, 58.7% of the city population is below 30 years of age.

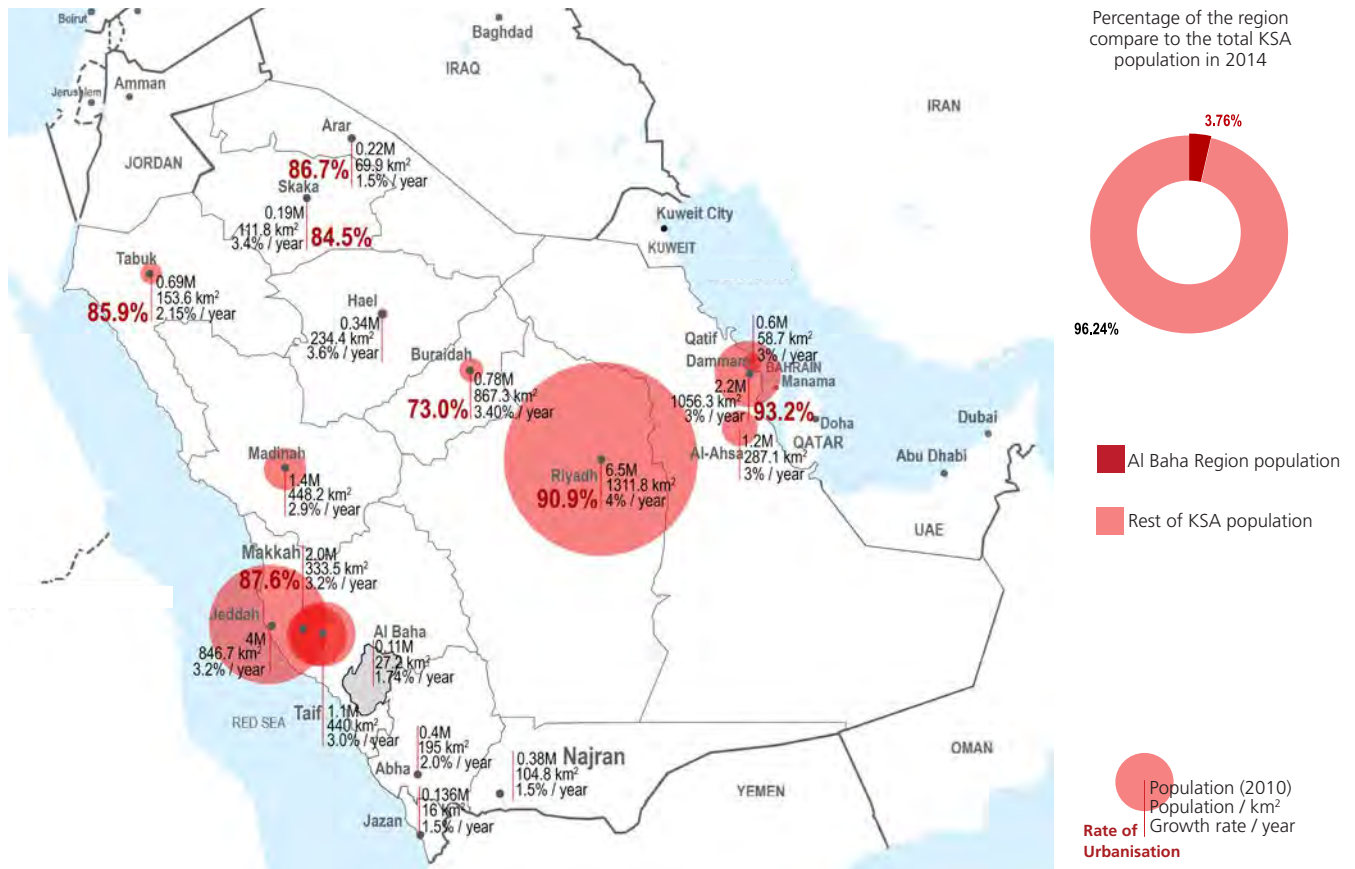


Fig. 1. Population distribution, growth rate and urban areas within the Kingdom of Saudi Arabia

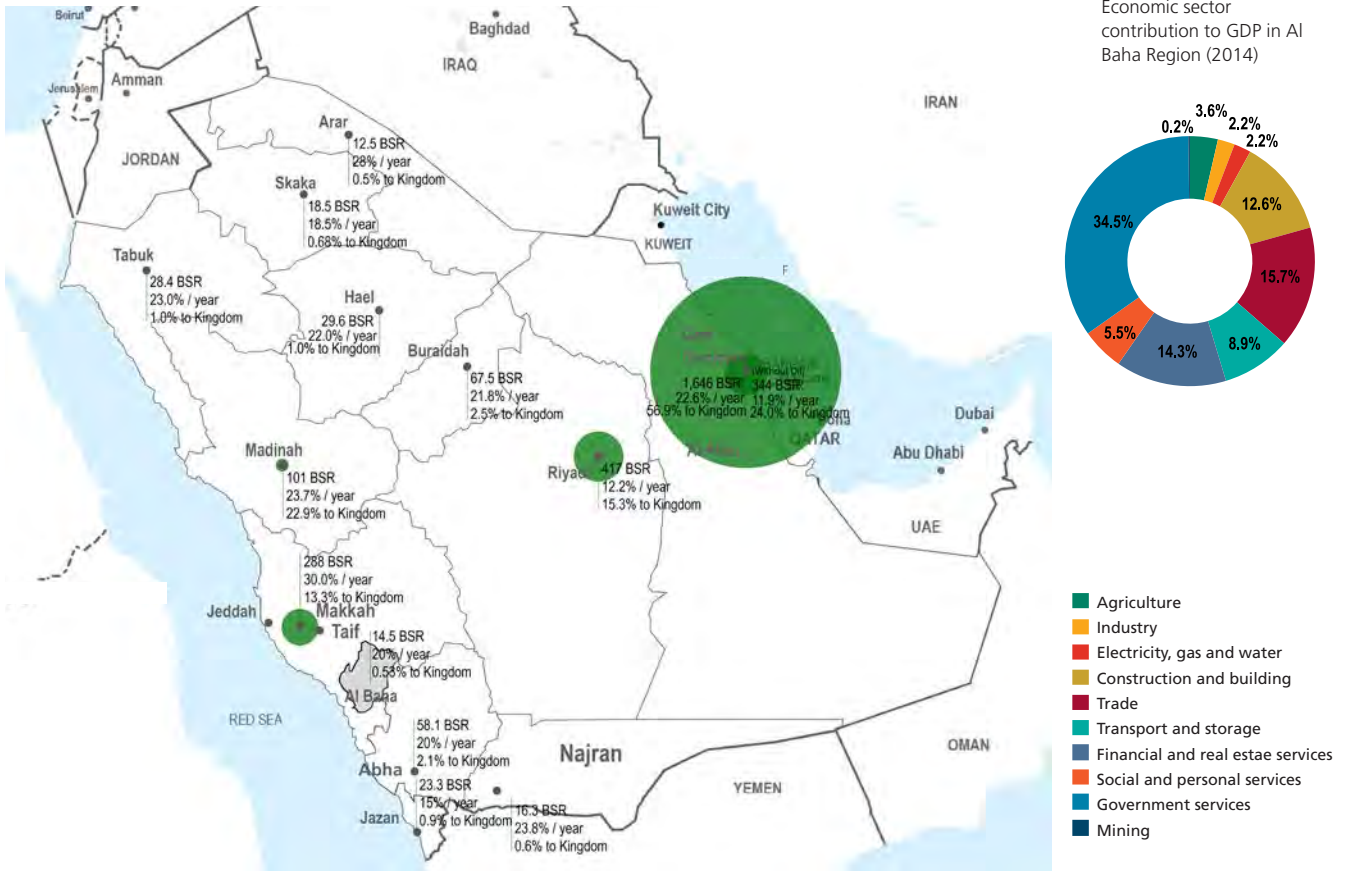


Fig. 2. Regional Gross Domestic Product and economic sector contribution



Fig. 3. Transport connectivity between Saudi cities



3.1.4 Socio-economic background

Al Baha is small in size but impressive in its splendour. As one of the smallest regions in the Kingdom in terms of both geography and population. Development projects should be targeted to attract investments and human capital to advance the regional economic base.

The region is known for the majestic Sarawat Mountain Range, which is often enveloped in thick fog during the winter. It is rich with natural resources and equally a delightful tourism destination, known for its cool weather and natural diversity. The region's architectural heritage, folk arts, crafts, heritage and buildings additionally contribute to GDP and are key for the future growth of Al Baha.

In an effort to enhance sustainable socio-economic practices in the Al Baha Region, the region and the Kingdom has designed programmes to empower people to shape their own economic future. These programmes are intended to create additional value from traditional crafts and resources in order to help communities secure a sustainable future for themselves and the environment of Saudi Arabia.

For example, families in the region have been supported by a training centre delivering courses in beekeeping in partnership with the Beekeepers Cooperative Association. The project also included a planting programme for 50,000 tree seedlings to support a larger bee population. The area has a long tradition

of honey production and actively participates in annual honey festivals, which generated SAR 1.8 million in revenue and attracted global partners.

Gross Domestic Product

The Gross Domestic Product of Al Baha Region in 2012 amounted to 14.5 billion riyals, accounting for 0.53% of the total GDP in the Kingdom or 1.0% of total Kingdom GDP discounting crude oil and gas. The region's average annual GDP growth rate was 20% during the period from 2009 to 2012. The trade sector ranks first in regional GDP contribution (14.6%), followed by the real estate and financial services sector (13.3%), building and construction sector (9.8%), transportation, storage and telecommunications sector (8.3%), mining (5.7%), collective and personal services sector (3.7%) and agricultural sector (2.8%).¹ The average GDP per capita increased from 20,000 riyals in 2009 to 33,000 riyals in 2012.

3.1.5 National connectivity

Road Network

The Al Baha Region has a well-developed transport infrastructure. Al Baha City, as the regional capital forms a major connection to the North, towards Taif in Makkah Region, which acts as an integral and strategic part of the Hejaz Region's economic base. The region does not have a



© FSCP

Cultural heritage of Al Baha Region



© FSCP

Vernacular settlements in the Al Baha Region



railway connection but there are two proposed railways; to the North towards Tabalah and South towards Al Muzailif. The region is additionally well served by an extensive road network.

Air transport

The King Saud Bin Abdulaziz domestic airport located in the North of Aqiq is a key economic connection that serves not only the region but also the Kingdom, carrying both passengers and goods. The number of airport users was quantified as 266,000 in 2011 and 327,000 in 2012, which amounted to an increase of 23%. The weighted quantity of goods transported via this airport was 70 tons in 2011, and 95 tons in 2012, marking an increase of 35%. This constitutes 0.02% of total air freight in Saudi Arabian airports over the same period. Air traffic in Al Baha is a fundamentally important asset, which requires recognition for present and future economic development projects in the region.

3.2 Regional Structure and Dynamics

3.2.1 Regional organisation

Administrative Boundaries

The Al Baha Region occupies 36,000 square kilometres making up about 1.6% of the total area of the Kingdom. The region is divided administratively into the regional principality of Al Baha and six governorates; Biljurschi, Al Mendaq, Al Mekhoah, Al Aqiq, Gulwa and Al Qura.

Regional Plan for Al Baha Region

The Regional Plan for Al Baha proposes a hierarchically organised system of growth centres and development corridors, which is intended to organise and coordinate future development efforts. Though the proposed corridors are not cross-regional as in the cases of regions such as Makkah or the Northern Borders, they aim to strengthen the intra-regional economic potentials that are key to improved future opportunities in the region.

These proposed corridors equally act to connect the main commercial centres, light industries and agricultural production areas within the Al Baha Region. The primary development corridor of the region begins in Al Baha City and extends in a Northwest direction, connecting to Taif City to form a major link to the Taif-Makkah-Jeddah economic and religious corridor. According to the Regional Plan, as a national growth centre, Al Baha City hosts services of regional and national relevance, that make it an important economic hub in its region. Regional Growth Centres, including Aqiq, Al Mendaq, Gulwa, Al Qura among other governorate capitals, contribute to regional own revenue by optimised potential in agricultural activities, tourism, and mining. However, the economic synergy between these centres and Al Baha City is not strong enough to form a city-region and thus these cities remain largely operationally independent.

As a host to the domestic airport, Aqeeq's supporting role extends beyond the regional confines to the Kingdom at large.

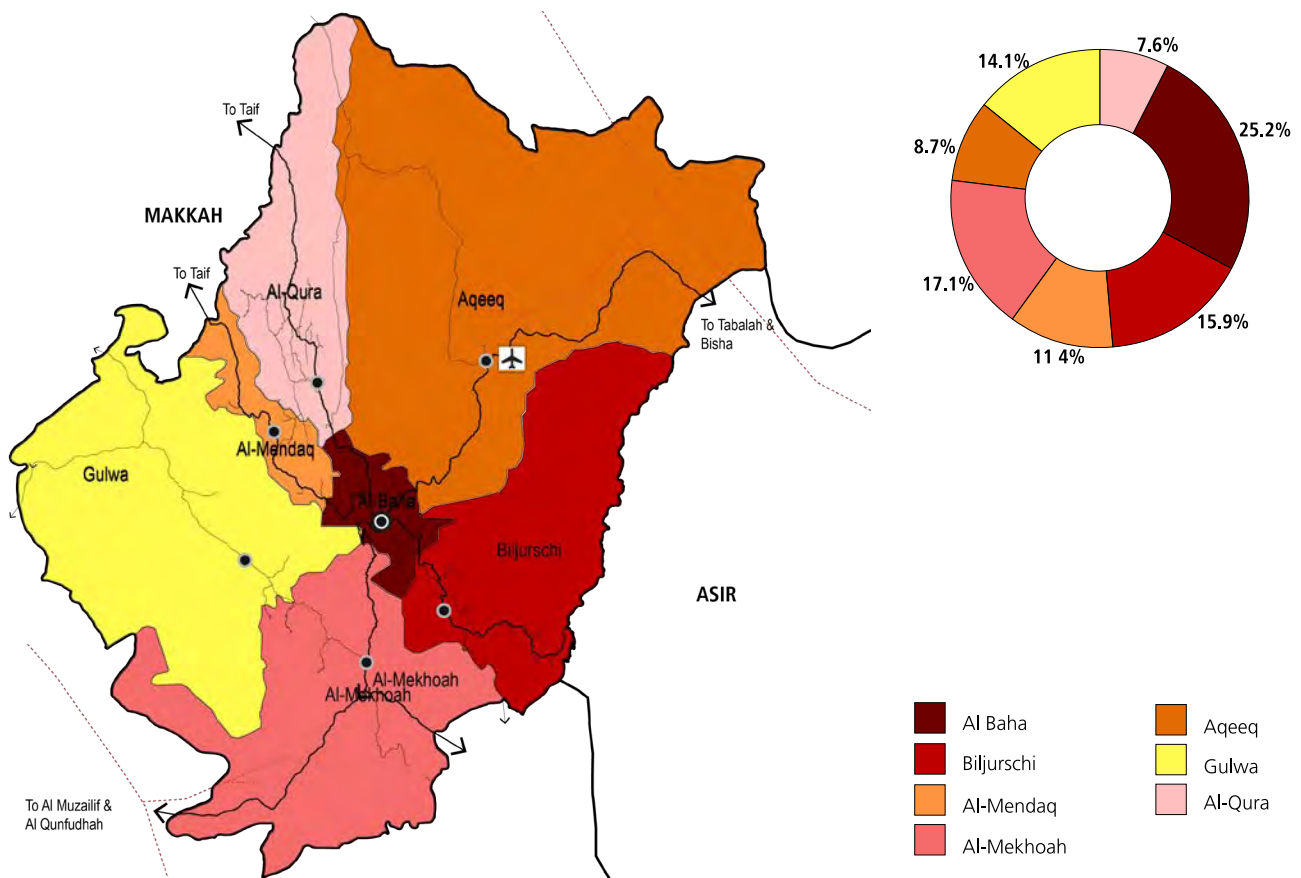


Fig. 4. Administrative boundaries and population distribution in the governorates

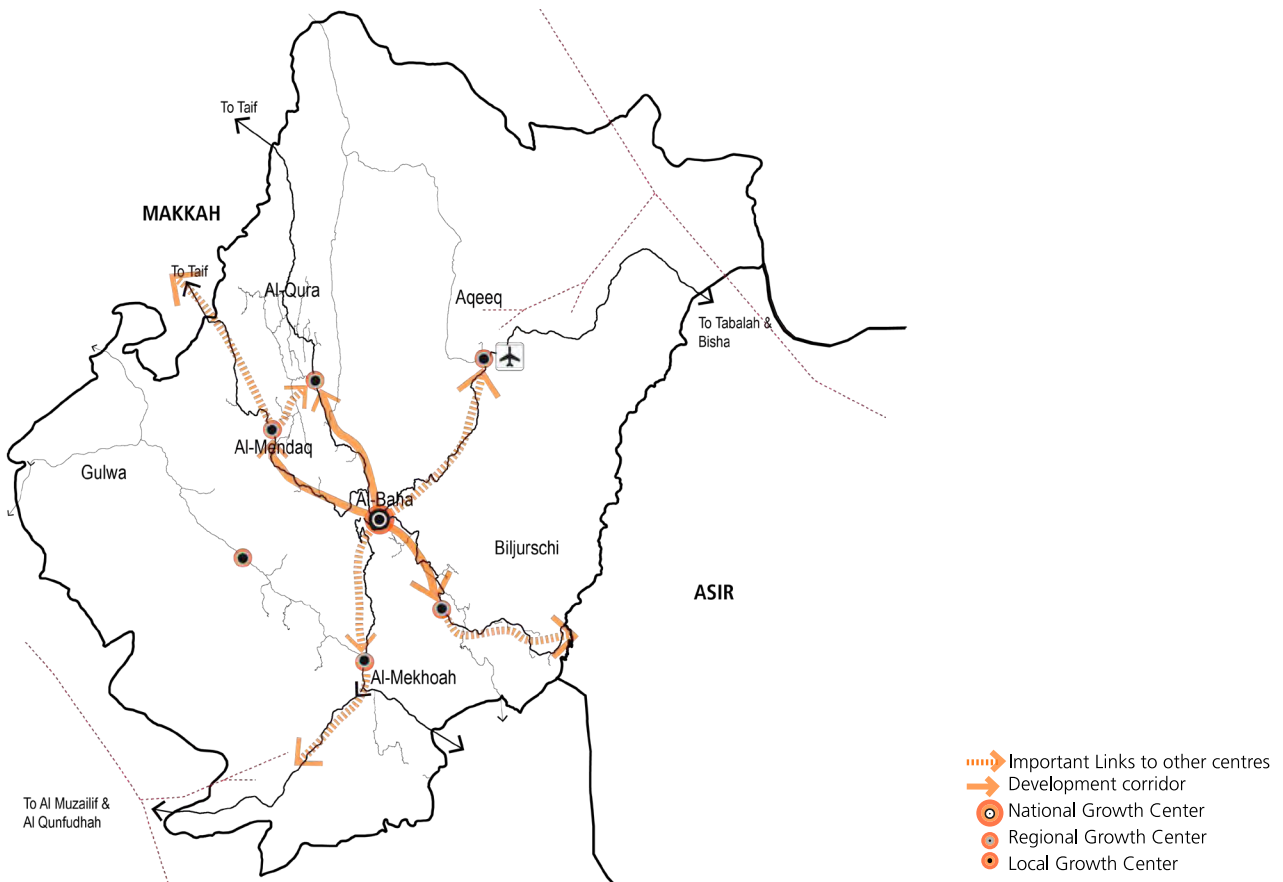


Fig. 5. Existing development corridors according to the Regional Plan for Al Baha Region

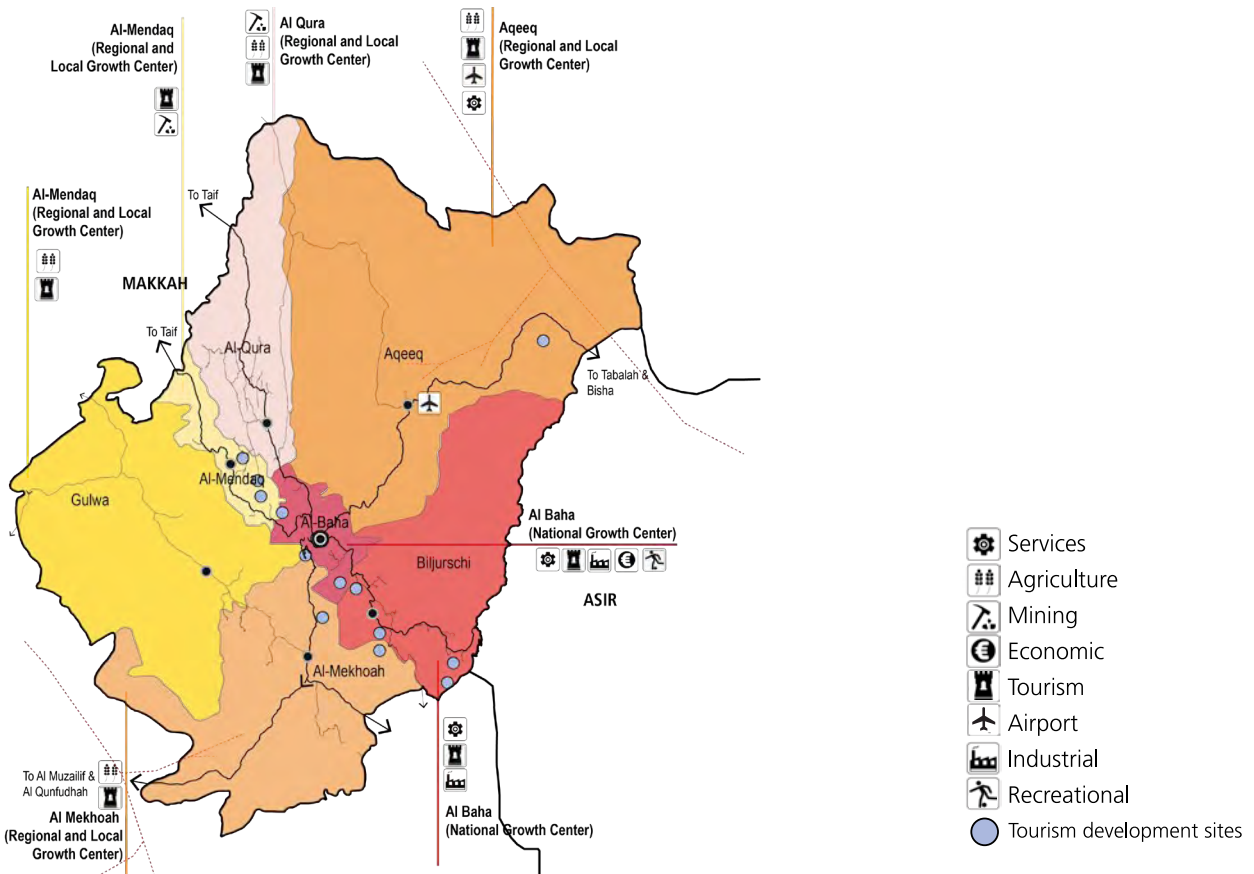


Fig. 6. Existing development sectors according to the Regional Plan for Al Baha Region



Also classified as a regional growth centre, it has the mass to create economic synergy with Al Baha City. However, given the location and its limited natural resources, the Al Baha Region is considered to be losing population to inter-regional migration and is yet to attract growth.

3.2.2 Regional structures and resources

Movement Infrastructure

Al Baha Region has a well-developed road network. The paved roads supervised by municipalities in the region have a total length of 3,526 kilometres accounting for an estimated 3.9% of the Ministry of Municipal and Rural Affairs roads in the Kingdom as of 2012. The length of highways, dual and single roads managed by the region's Ministry of Transport is estimated at 632 kilometres, constituting 4% of the Kingdom-wide total, which reached an estimated 16,000 kilometres in 2012. The length of agricultural and dirt roads in the region were 5975 kilometres by the end of 2012.

The region is currently witnessing new projects and expansions in the internal road network and to the interregional link roads. The ring road of Al Baha, completion of the dual road of Al Baha/ Al Mekhoah, Al Muzailif, completion of the dual road of Aqeeq/ Garab / (section three) in Al Baha, and also connection of Al Baha Region with the road of Riyadh / Rain / Bisha.

Environmental and Topographic Elements

On a national macro scale, the climate of Saudi Arabia is arid, largely characterized by hot and dry summers with cool winters with occasional rainfall. The Southwest of Saudi Arabia has the largest annual average rainfall. Summer rainfall occurs over the mountains due to the easterly jet and the monsoon. The climate of the Al Baha Region is greatly influenced by its varying topography. It is generally moderate in summer and cold in winter, with average temperatures ranging from 12– 23°C. The rainfall data in Abha and Al Baha indicate variable patterns over the past 10 years and in Jazan, rainfall is predicted to increase with time.

Studies on climate change undertaken in Al Baha, have assessed the spatial and quantitative changes in surface runoff that have been generated by land cover change in the region between 1990 and 2000. These studies have revealed a 26% decrease in forest and shrubland areas, a 28% increase in irrigated cropland areas, a 1.5% increase in sparsely vegetated land and a 0.5% increase in bare soil in this period. Overall, land cover changes have produced a significant decrease in runoff depth values in most areas of the region.² This analysis of past and current trends have been used to predict a greater than two-fold increase in irrigated cropland during the period from 2000-2030. Forest and shrubland are anticipated to occupy just 225 square kilometres of land area by 2030, a significant decrease from the 747 square kilometres they occupied in 2000.

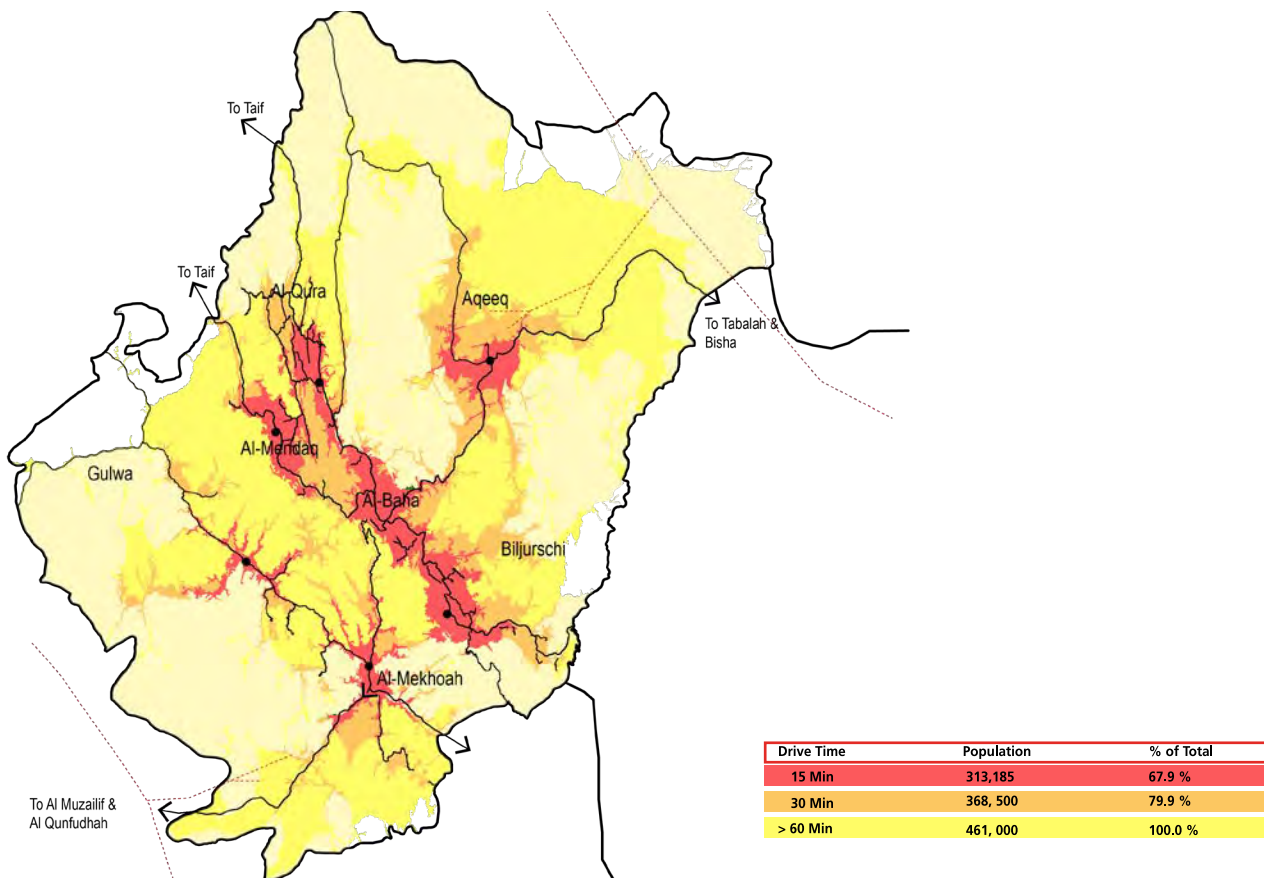


Fig. 7. Accessibility in the Al Baha Region



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Al Baha terrain and topology



Regulations are required to propagate sustainable irrigation techniques that would protect the existing underground water aquifers and prevent use of pollutants that further deplete surface cover and result in increased regional temperatures.

Economic Resources

Agriculture

Agriculture is a traditionally important economic sector in the Al Baha Region. The sector's contribution to GDP is ranked seventh in the region at 2.8%. This region enjoys significant comparative advantages for agricultural production, including water quality and availability, higher rainfall and favourable soil quality. However, cultivation in the region is limited to practices that are commensurate with the nature of the mountains and highlands in the region.

The total regional crop area as of 2011 was about 3,400 hectares, representing an estimated 0.4% of the total 788,000 hectares Kingdom-wide crop area in the same year. The regional production quantity of any crop in the region did not exceed 1% of the total production of the Kingdom. At the city scale, Al Baha's agricultural lands follow the natural landscape of mountains and wadis in the form of terraced fields. At the regional scale, agricultural activities in the South of Al Mekhoah and Northeast of Aqiq take the form of grazing lands. The entire region is characterised by pastoral land and a long-standing expert culture in sheep farming.³ In addition, the distinguished regional honey farms represent an estimated 5% of the total honey production of the Kingdom.

Industry

There are 15 productive factories in the Al Baha Region, which represent an estimated 0.24% of the Kingdom's total production in 2013. Total investments in the region's factories in the same year amounted to SAR 60 million. This represents less than 0.1% of total funding for productive plants in the Kingdom, which was allocated SAR 873.2 billion.⁴

The current number of workers in factories are 482, representing an estimated 0.06% of the Kingdom's total industrial sector workforce in 2013, which was calculated at 828,000. Industrial production in the region is very limited. Facilities include factories for building materials such as blocks, tiles, and some plastics production. In addition, there remain traditional craft factories, the products of which are widely spread in popular markets of the region. These include pottery, palm leaf and leather products.

Trade

The total number of establishments and businesses in the Al Baha Region in 2012 was calculated at 11,600. This number was inclusive of multiple types of businesses engaged in various economic activities. This number represented an estimated 1% of the total number of trade establishments in the Kingdom, which was calculated at 1.19 million in the same year.⁵

The average annual increase in new businesses in Al Baha during the period (2004-2012) is estimated at 670 establishments.



Heritage sites form part of the the Al Baha Region cultural landscape

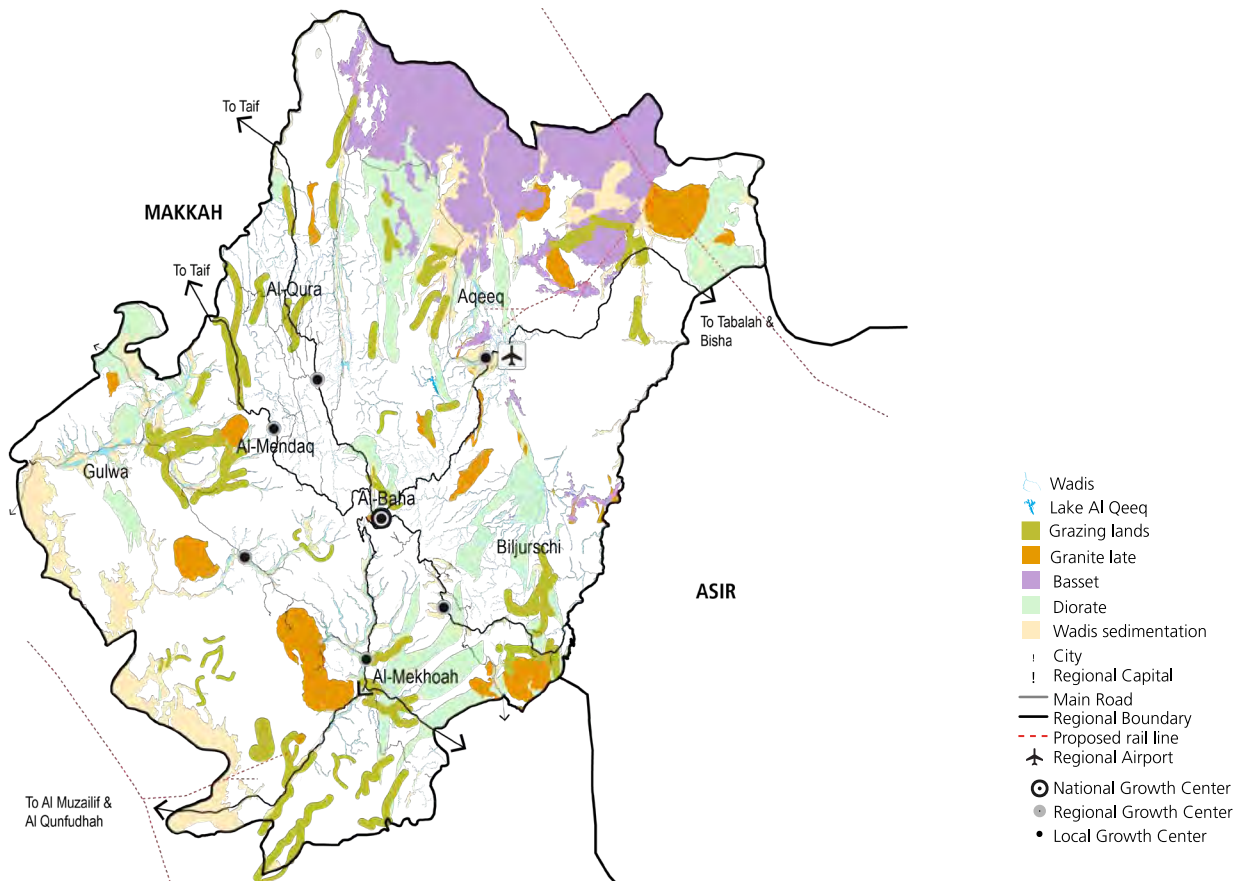


Fig. 9. Natural resources

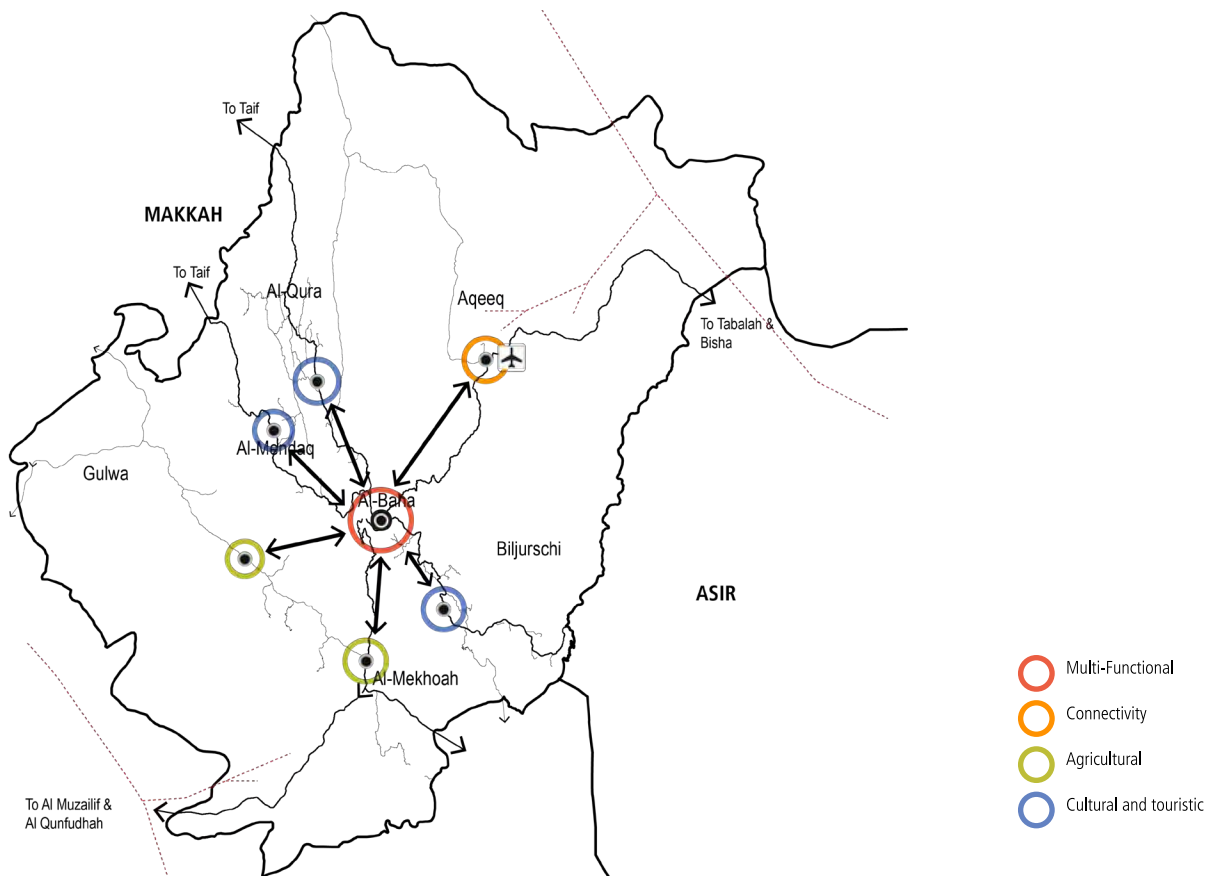


Fig. 8. Functional connectivity



Al Baha has great potential, which make it eligible to attract more domestic and foreign investments in various economic activities. The following economic sectors, though not fully operationalised at this time, have economic feasibility to drive future growth of the region:

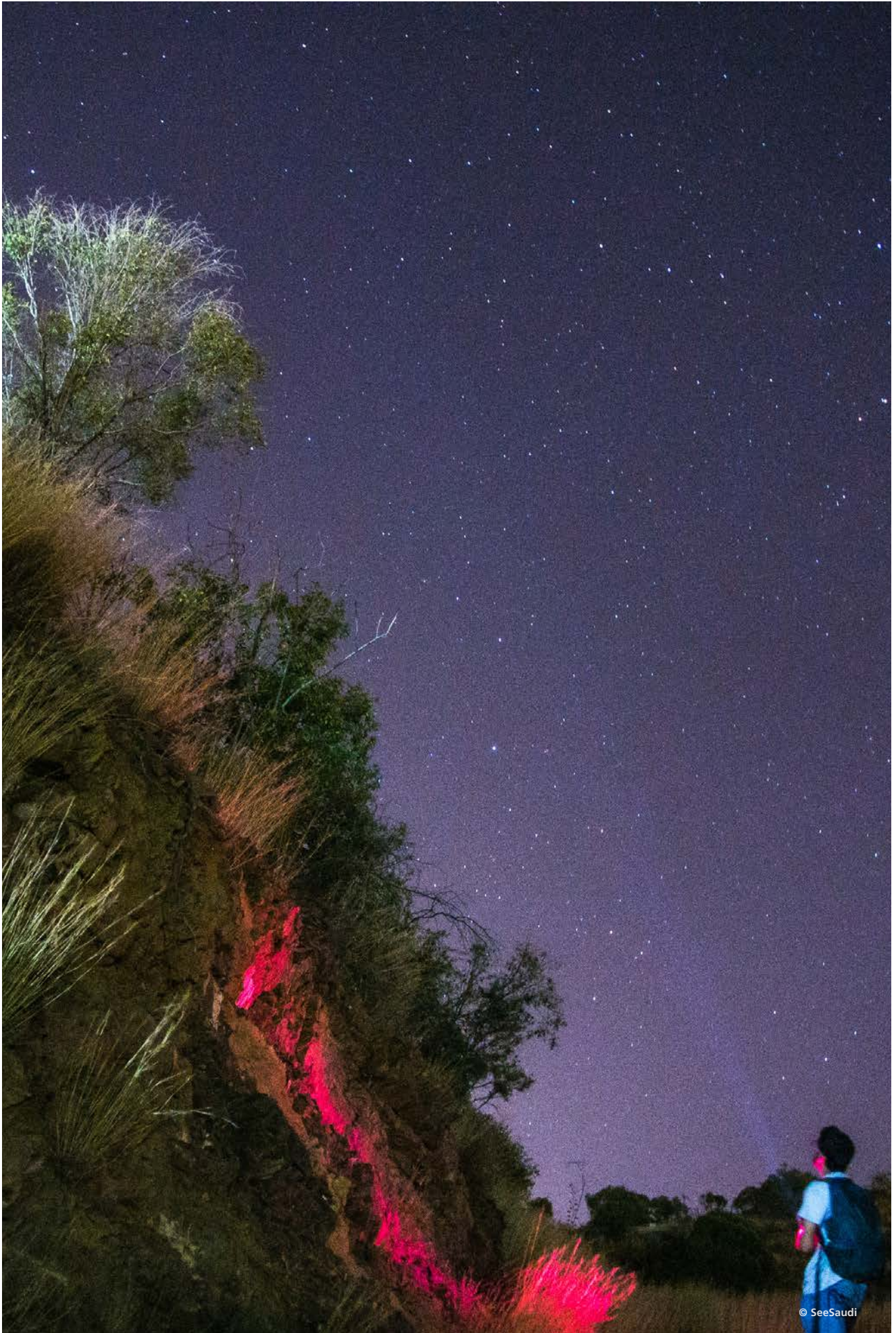
Tourism

The tourism sector in Al Baha occupies a distinguished position among the economic sectors in the region, and has a great potential to grow. The region is currently experiencing increased growth in recreational domestic tourism driven by the appeal of its beautiful nature, geographical diversity, historical shrines, recreational areas and sports activities. This is a promising sector provided that investments in hotels, guest houses, restaurants and associated services are increased.

Given the touristic impact on increased demand for agricultural products, the agricultural sector in the region is well placed to increase crop production. This in return, could attract large investments in food processing and manufacturing. This implies further benefits to related agricultural industries such as equipment and machinery.

Mining

The region has important raw material composition and potential for mineral wealth. These include barite which is located to the south of Aqiq, pyrite ores in Badia, feldspar and fluorite in the west of Wadi Turba, Abla and Aqiq, ornamental stones including marble and granite in the area of Wadi Turba and east of Leith, silica sands, kainite raw materials, clay, basalt and others. The mining sector needs to be provided with the infrastructure such as roads and technical services that enable the optimal exploitation of these materials. This sector can attract large investments in for diverse mining activities which would in turn, creating job opportunities and boost the regional GDP.



© SeeSaudi

Night tour in the Al Baha mountains

3

GOVERNANCE AND FINANCIAL FRAMEWORK



4.1 Legal and Institutional Context

The legal planning framework of Al-Baha 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 disjointed law-making process has given rise to over 500 urban planning related instruments. However, the majority of these are promulgated at the lowest administrative level (Circulars)⁶ and therefore lack authoritative legal force.

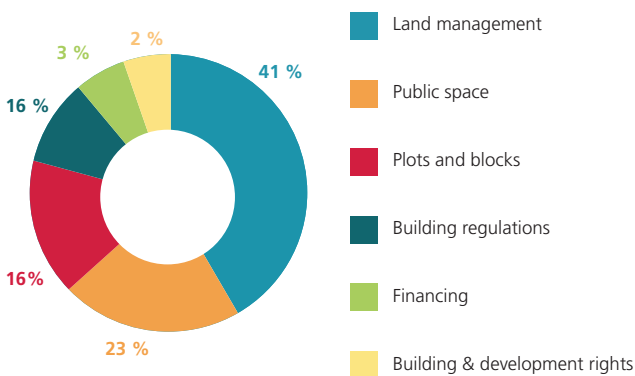


Fig. 10. Number of urban laws in KSA based on the Main Themes of Urban Planning Legislation (UN-Habitat)

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 Al Baha's growth and development patterns. The Municipality of the Al Baha Region (Amanah), as the local level actor for Al Baha, acts solely as an implementing arm for MoMRA. The institutional budgetary system is also centralised, meaning that Al Baha's development intervention is reliant on funding allocation from MoMRA, through the sole fiscal resource of an annual line item budgeting.

The Kingdom's planning system that Al Baha 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. Four plans, except the Local Plan, have been approved and implemented for Al Baha. These are: a) the Regional Plan for the Al Baha Region 2007; b) the Sub-Regional Plan for Al Baha 2007; c) the Directive Plan for Al Baha City 1985; and d) the Structural Plan 2007. The three phases of the Urban Growth Boundary (2014/1435H, 2019/1440H and 2030/1450H), aim to prevent urban sprawl in the outskirts of Al Baha without adequate provision of accompanying infrastructure.

The NSS is the only plan that is enshrined in law. The remaining planning instruments are defined 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 within Al Baha despite calls from residents, specialists and the private sector to regularise high density housing within the city. This can be demonstrated by disaggregated analysis of building typologies in the city. The total number of buildings in the city is 2378. There are 21 residential districts. The most common typology observed in housing districts were single storey dwellings, comprising 35.2% in 12 districts. In 6 residential districts, two storey dwellings were observed to comprise more than 39%. Buildings with three to five floors constitute an average value of 18.9%⁷ of the entire residential area, however, only 0.9% of buildings were observed with more than five floors.⁸ Al Baha 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 as well as participation from civil society, the public sector and other relevant stakeholders.
- The Al Baha Amanah could be strengthened by enhancing human resources capacity and forming an executive and administrative body within the Amanah. This would streamline its vertical and horizontal coordination with other planning authorities to 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 leveraged to generate revenue while fostering an efficient development framework.
- Opening avenues for actors in the private and voluntary sector and the general community to participate in decisions regarding projects that affect them.
- Creating an information system to hold and organise significant urban data and imagery that can be made accessible to all government agencies, would facilitate the preparation of spatial plans and projects.



© FSCP

Analysis of the existing conditions of the city

Consolidation of the legal planning instruments would also support development intervention in Al Baha and add legitimacy. These laws additionally require review, with view to updating and modernisation, in order to bring them in line with the current development situation. For the Al Baha Region, this means considering the area's unique natural, urban and demographic characteristics. This should also entail adjustment to the lawmaking process to limit the number of actors. The legal framework also needs to enshrine an acceptable level of public participation in decision making to foster equality and inclusion. The consolidation of the urban legislation would also give legitimacy to the plans that Al Baha relies on.

The Al Baha Local Plan, which is yet to be approved, could be revised to spearhead the preservation of agricultural land and green areas inside the city and to promote sustainable urban development.

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 as well as planning policy options.

4.2 Planning Instruments and Procedures

4.2.1 Hierarchy of plans

The planning system of Al Baha is derived from the de facto planning hierarchy of the Kingdom. This means that the system of spatial planning in KSA does not exist by legal right but rather through established practice. Within this framework, there are four different levels of spatial plans: national, regional, local and district. However, there is no clear structure for strategies of approval and implementation of the plans. Figure 11 highlights the planning instruments in force in Al Baha.

4.2.2 Regional Plan for the Al Baha 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. A Regional Plan was approved by MoMRA for the Al Baha Region in 2007.

The existing 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 core emphasis of the Regional Plan is to strategise concentrated development in particular urban clusters in the region, which will function symbiotically in an urban hierarchy to serve the other clusters. The proposed clusters are divided into several categories according to the functional role they will play, considering diversity (in activities and work prospects) and future integration as important factors.

The existing Regional plan for Al Baha addresses the following:

- The general framework of the development strategy;
- The regional development strategy; and
- The detailed development strategy.

Within these strategic frameworks, the following challenges and possibilities for the region are considered:

- The location between the Makkah and Asir Regions and the small size of its area limits its ability to attract investment;
- Weak infrastructure and central services; and
- economic base for industrial, touristic, agricultural, and construction sectors.

The Regional Plan summarizes various economic, social, demographic, urban and environmental goals:

- Enhancing the tourism sector in the area;
- Developing and strengthening the commercial sector;
- Raising the level of healthcare and educational service provision in the region;
- Developing the region to limit internal to external migration. Such development should include urbanising Tehama to create employment opportunity and providing services, universities, and public institutions.
- Improving infrastructural facilities such as intra-city and inter-city road networks;
- Discouraging de-forestation;
- Organising urban development in the mountainous area in a way that is suitable in the natural environment; and
- Improving the hierarchical functions of the city structure by setting suitable residential size guidelines and updating the structural plans for the proposed growth centres.

4.2.3 The Al Baha Plan

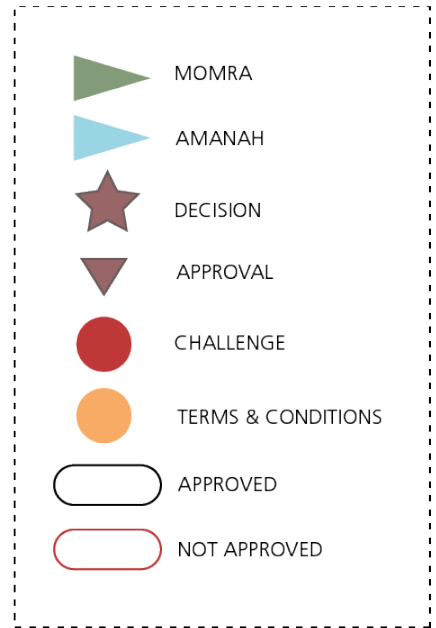
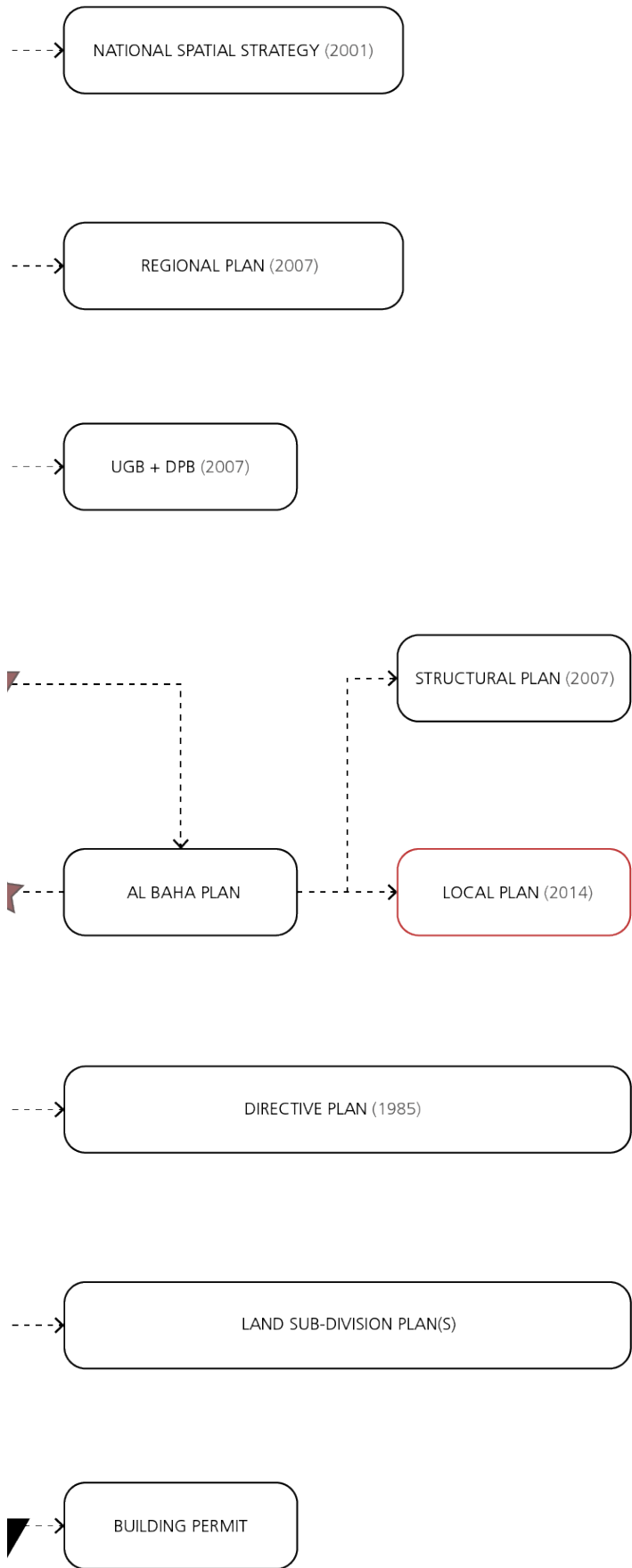
The existing Al Baha Plan is a planning tool composed of a strategic component (the Structural Plan) and supported by a regulatory document (the Local Plan). The scope of these



Entrance to one of the historic settlements in the Al Baha Region



Fig. 11. FSCP simplified representation of hierarchy of plans and the planning instruments for the city of Al Baha



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

Existing Structural Plan of Al Baha

The Structural Plan intends to identify key spatial structures as first referred to in the Regional Spatial Strategy. The Al Baha Structural Plan of 2007 was prepared by the Amanah and approved by MoMRA. This plan, in line with the Regional Plan, highlights objectives for all cities located within the metropolitan area. The city of Al Baha remains the administrative and service centre for the region.

Al Baha City is the administrative capital of the Al Baha Region, and is unique in its demographic, economic and urban arrangement:

- It is situated in the Abha – Taif Development Hub and is recommended by the National Spatial Strategy to become a national growth centre;
- It holds 25% of the total regional population.⁹ This is the highest percentage among the regional governorates;
- It contains a high percentage of non-Saudi population, at approximately 21%.¹⁰ This shows that foreign direct investment can thrive in the city;
- It holds a 45% share of total commercial activities registered with the Al Baha Region Chamber of Commerce. This demonstrates the city's prominence as a significant economic centre;
- The construction industry is the third largest economic sector in Al Baha City. The number of enterprises in this field comprise 19% of the city total. There was an 8% increase in the number of construction firms operating in the city from 2007 to 2013 which provides an indication of the rate of urbanisation.
- It is a popular domestic tourist destination. The number of tourist excursions to Al Baha City reached more than 649,000 in 1990, which accounts for 98.3% of internal tourism in the Al Baha Region.

The existing Structural Plan identifies strategic land uses and infrastructure networks within the metropolitan area of the 1450 Urban Growth Boundary (UGB). Within this growth boundary, 49% of the urban footprint is reserved for agricultural lands and 23% is preserved for residential use. The area allocated for residential purposes could hold double the projected population at UN density standards, however, the plan promotes a very low- density residential typology.

This Plan encourages monofunctional land use. Mixed land

uses and commercial uses (1% mixed, 2% commercial) are proposed exclusively along the major corridors and secondary roads. Forest use is allocated 9% of the urban area and public facilities are allocated 6%.

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 particular focus on housing. The Local Plan contains the Urban Atlas which details the permitted land uses for each part of the city. It is complemented by a regulatory 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 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 at which time a key technical change introduced the requirement that the lifespan of new plans should be 14 years (2015-2029). However, this booklet has no legal standing and 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 with 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 body for regional project implementation¹¹ 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 Al Baha.

The existing Al Baha Local Plan is yet to be approved¹² though it was prepared in 2014 by MoMRA in coordination with the Amanah.

The existing Directive Plan of Al Baha

The Directive Plan for Al Baha was approved in 1406H/1985 by MoMRA. The Plan focused on the active role of Al Baha City as the inter-link for regional roads and the administrative capital of the Al Baha Region. It distributed recommended development between four centres, focusing commercial and public services in the central area. In addition, the plan set building height requirements according to area, which were

prescribed at 4 floors in the central area and 2-3 floors in peripheral areas.

The existing Directive Plan also recommended the provision of networked green and recreational spaces in most areas of the city. The Plan supported agricultural activities and afforestation through the following goals:

- Protecting residential areas from wind and dust;
- Protecting and fixing the agricultural terraces;
- Improving the local climate;
- Beautifying the city; and
- Establishing a balance between surface rainwater runoff and environmental protection from torrential rains and floods.

4.2.4 The Al Baha Urban Growth and Development Protection Boundaries

Legal Framework

In 2008, the Prime Minister issued decree No. 157, which sets the overall regulations for the urban boundary (until 2030) and the Development Protection Boundary (DPB). The executive regulations were issued in 2010 by MoMRA Ministerial Decree No. 11769, followed by the current revision (MoMRA Ministerial Decree No. 66000), 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, preserving land for growth beyond the 1450 (2030) Urban Growth Boundary.

The 2014 Decree stipulates several general development principles including:

- Strategic development projects that are part of the spatial strategies, including major road and railway networks passing through private lands, should be prioritized 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.

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 12).

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, under the King's prerogative, certain agencies have rights to lands situated in protected areas between the two boundaries. In such cases, approval of development projects is

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 - Percentage 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 - Percentage 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. 12. Matrix showing the development options within the phases of the urban boundary in the National Growth Centres (Including Al Baha)

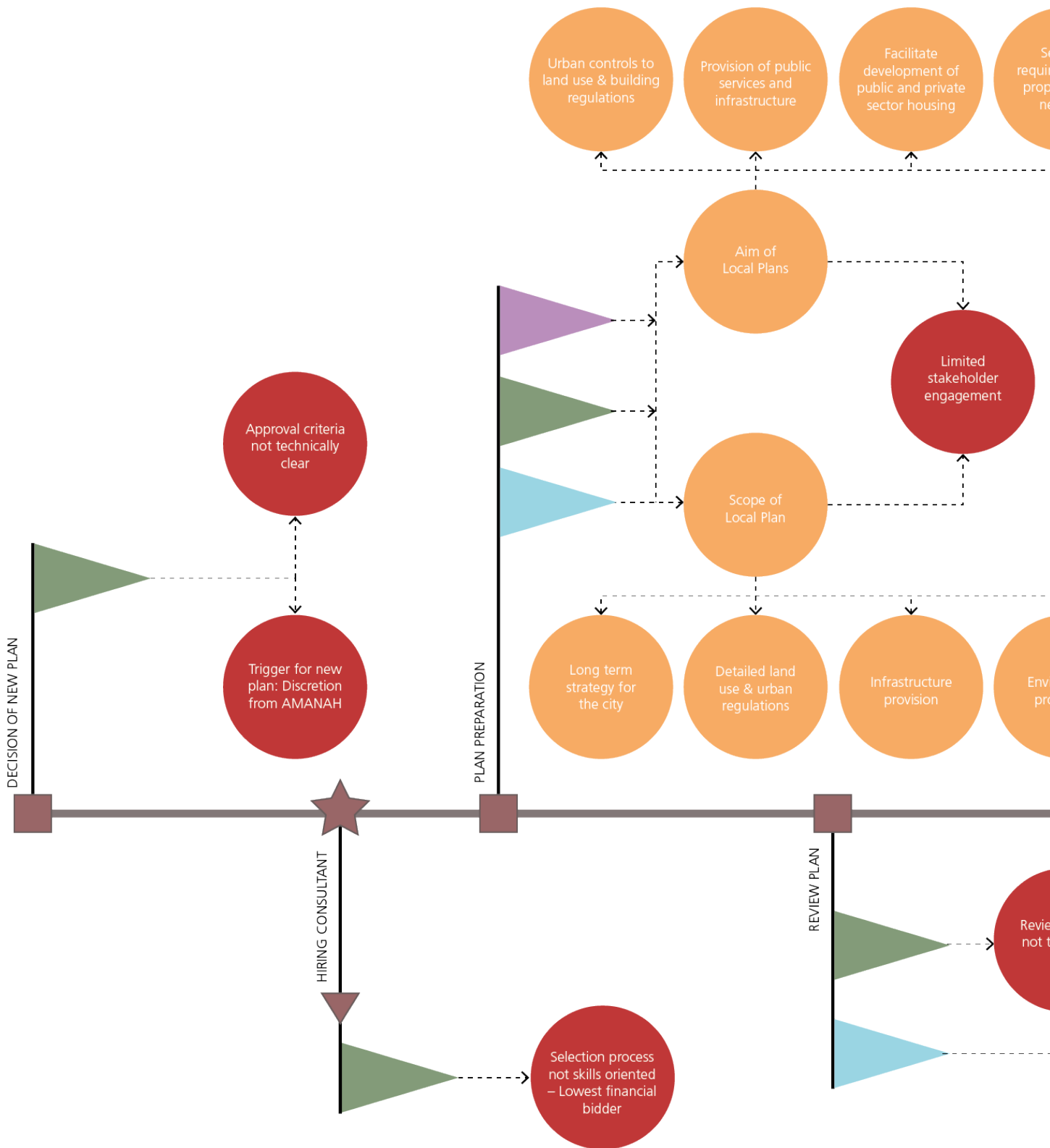
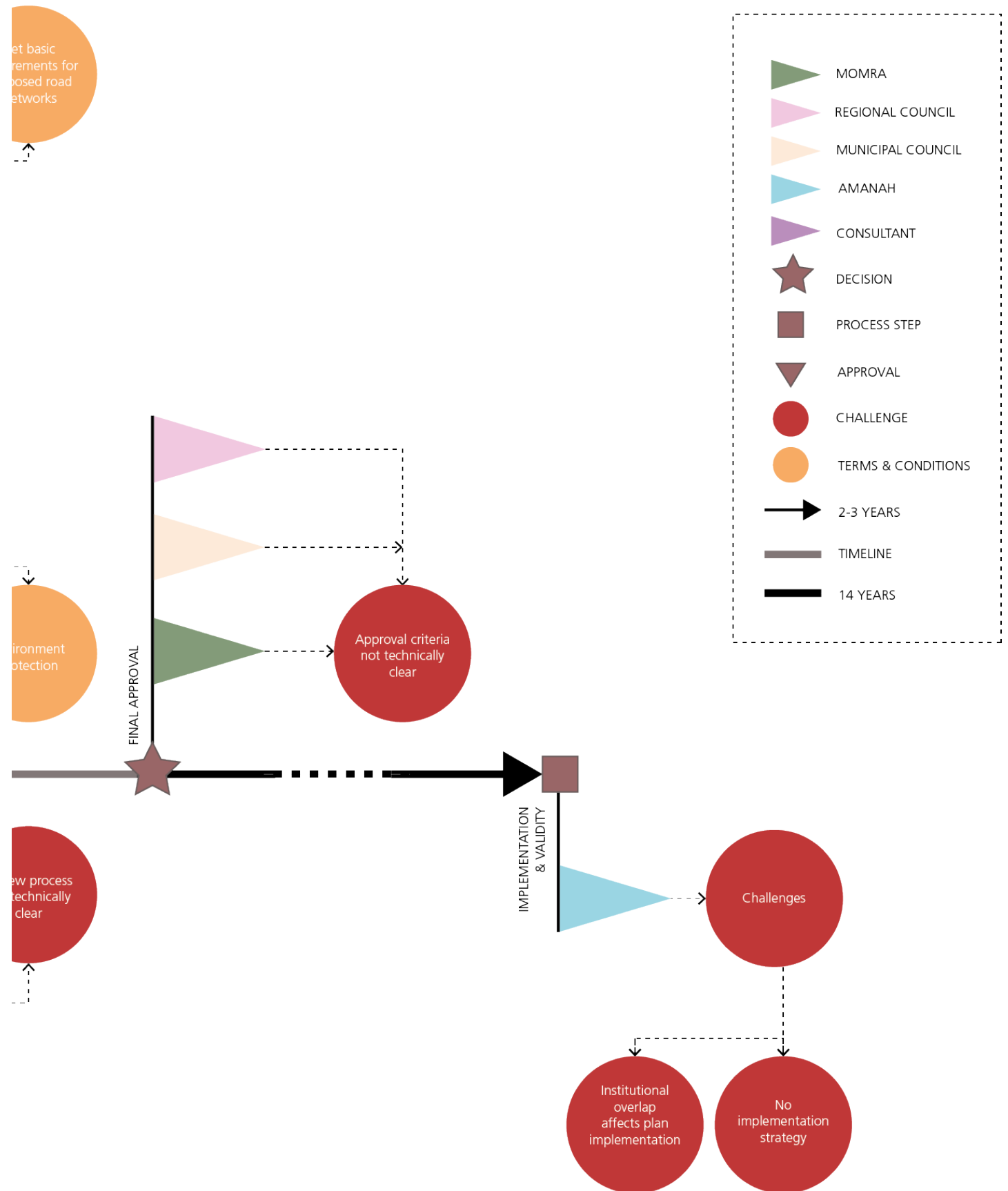


Fig. 13. FSCP simplified representation of Planning Process and Actors involved in the preparation of the Al Baha Local Plan



routine, as the royal prerogative supersedes MoMRA's powers of assessing compliance. Additionally, given the legal flexibility surrounding the definition of "mega" or "strategic" projects, private residential developments have been approved outside the 1450 UGB. These factors have undermined the functional efficacy of the regulations, rule of law, and the compact development of urban areas.

Setting the Boundary

The urban growth boundary for Al Baha, 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 Amanah, which remains formally responsible for planning at city level. There is an understanding that the calculations were based on factors such as historical and expected population and built 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 and the development of this land may take longer due to lack of required services.¹³

Permitting

Development within the UGB is closely linked to permitting and development control. The process in Al Baha is as follows:

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

White Lands Act – Al Baha

The percentage of undeveloped land ("white lands") in Al Baha is high, at 17,516.9 hectares which represents more than 35% of land inside the 1450/2030 Urban Growth

Boundary. 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 Law¹⁴ that imposes an annual land tax of 2.5% of 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 (See figure 14). At the moment, the Act is operational only in Makkah, Riyadh, Dammam and Jeddah.

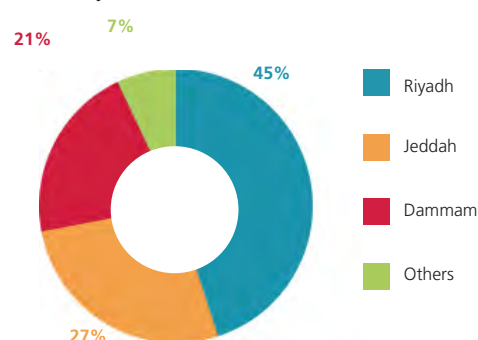


Fig. 14. Percentage of white lands – First phase of implementation of the White Lands Law

4.2.5 Land Subdivision Plans

The Land Subdivision Plans are the basic building blocks for KSA cities' growth and development. The Mayor of the Al Baha 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 UGB;
- The land use specified is consistent with the instructions and regulations governing it;
- 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.

There are 1,032 land subdivision plans which have been approved by the Amanah within the UGB.¹⁵

4.3 The Institutional Context

4.3.1 Urban institutions in KSA

Al Baha's growth and development pattern is impacted by the centralised institutional planning 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. That includes 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.¹⁶ 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.¹⁷ In practice, there is little coordination between these departments and the Amanah, which affects service delivery and project implementation.

4.3.2 Regional context - Al Baha region

According to the Ministry of Interior administrative classification, the Al Baha Region is divided into 12 governorates (7 class A, 5 class B). Al Baha, as the regional capital, is not included in this classification but instead is 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.¹⁸ This is the sole fiscal resource available to Al Baha.¹⁹ There are additional institutions in the Al Baha Region that manage and regulate the development process. The Amanah of the Region, is headed by the Regional Prince who, pursuant to the Regional Law,²⁰ reports to the Ministry of Interior.

The Regional Council²¹ is based in the Amanah and is required to:²²

- 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 from MoMRA. These requests are vetted and viable projects selected for funding. Funding is provided as part of the National Development Plans and yearly budget for the country which is the sole resource available to municipalities;
- Study the organisational arrangement of the regional administrative centres, follow up implementation of any modifications; and
- Implement the provisions of the development, budget plan and carry out the necessary coordination.

The Municipal Council, also located in the Amanah, supervises the activities of the Amanah and municipalities to ensure conformity to the Local Plan in concurrence with the needs of the region. Two thirds of the council's members are elected 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 Mayor;
- Residential plans for procedural violation;



Rural areas of Al Baha

- The scope of municipal services; and
- Expropriation projects based on Mayoral priority.

The Council has no executive powers as this is vested in MoMRA, the Regional Prince and the Regional Council, and therefore, it does not have the capacity to directly follow up its recommendations.

4.3.3 Local context: Al Baha

The Al Baha Region is composed of several cities including the capital, Al Baha, which is the largest in the region. As outlined above, the city is managed by the Amanah, which is directed by a Mayor. The Mayor is appointed by the Minister of MoMRA and the executive members of the Amanah are appointed by the Civil Service Bureau, by professional qualification. The organisational structure of the Al Baha Amanah has been updated three times, the last of which was between 2015 and 2016. However, within the administrative structure and under the Mayor's office there are three important main deputies/agencies concerned with the administrative, organisational and planning aspects of the Amanah of the Al Baha as follows:

- Deputy of Urban Development;
- Deputy of Construction; and
- Deputy of Services

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

- The reserved agricultural lands are located within the urban core which hinders the planning initiatives of the Amanah;
- 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 in accordance with the Council of Ministers Real Estate Disposal Regulation, 2003 and its implementing regulations, 2005. The Amanah's direct role lies solely in the preparation of building regulations of the city of Al Baha within the unapproved local plan;
- Many governmental agencies, with particular reference to their departments operating within Al Baha City, overlap with the Amanah. These are: the Emirate of Al Baha, the Al Baha Regional Council, the Al Baha Municipal Council, Municipalities of the 4 Governorates and their departments. At the regional level, several committees have been formed to resolve issues related with this overlap. These include: i) the Sub-Committee of the Regional Council; ii) the Municipal Council Committee; and iii) the Committee to monitor violations. 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 to the Ministry of Finance. There is a continuous and direct coordination and communication framework with the Ministry of Finance, necessarily with respect to financial



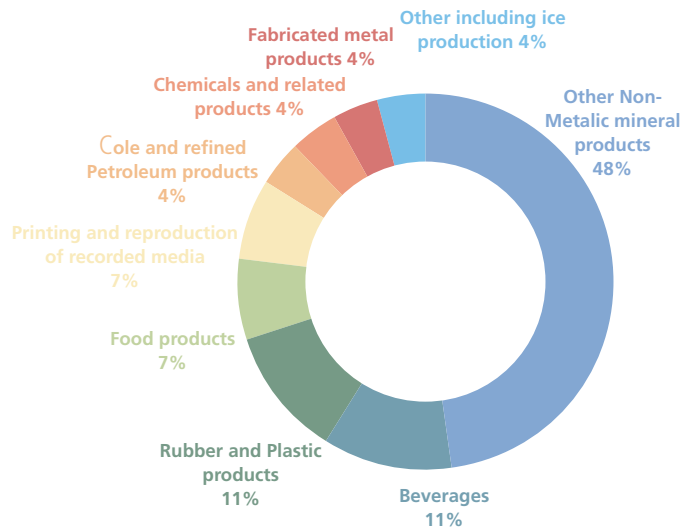
Landscape around the city of Al Baha

- claims and budgeting;
- The limited number of employees specialised in urban planning. This can be partly attributed to the bureaucratic and time-consuming recruitment process;
- Insufficient budget, which does not recognise the magnitude of work to be undertaken within the Amanah. This affects, among others, the hiring of qualified consultants to prepare plans; and
- The procedures to monitor violations of planning regulations and enforcing administrative actions. The process for issuing penalties is currently cumbersome and therefore ineffective as a deterrent mechanism.

4.3.4 Legal and institutional implications for Al Baha

Most technical decisions and approvals passed in the local governance (Amanah), including planning decisions, are made on a discretionary basis according to the priorities set for the city. 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.

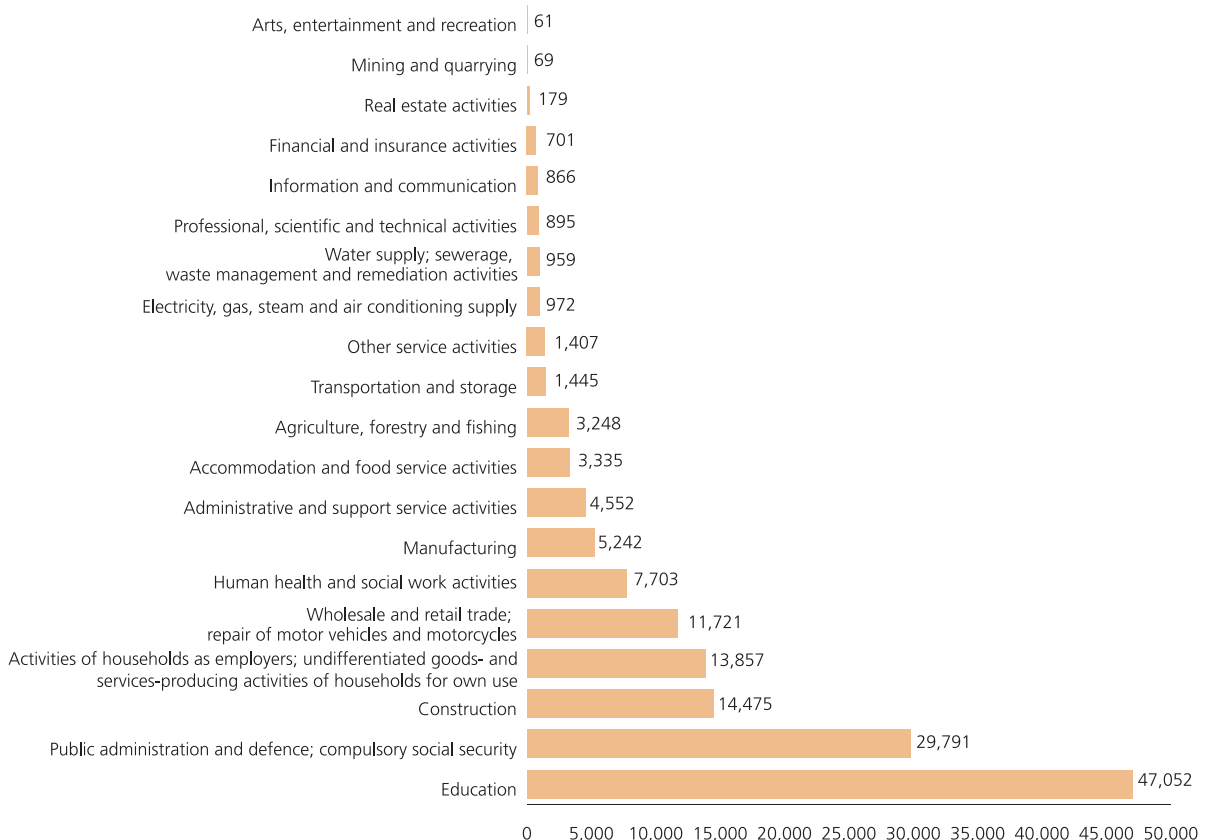


Source: National Industrial Information Centre (NIIC) - KSA, 2018

Fig. 16. Number of factories per industrial activity In Al Baha Region, 2018

4.4 Financial Context

Al Baha is both an administrative and an economic centre, hosting a full portfolio of economic activity This includes a considerable amount of agricultural production including honey, fruit, and dates. Education, public administration, and construction are the most prominent economic sectors and



Source: General Authority for Statistics, 2015

Fig. 15. Distribution of jobs created in Al Baha Region by economic activity, 2015

employ most of the region’s workforce. The government is working to identify strategic economic sectors that can foster local economic development, job creation, and innovation in Al Baha. Economic diversification in this part of the Kingdom is key to achieving both the regional and the national economic goals of the 2030 Vision.²³ Consequently, the development and enhancement of infrastructure, (i.e., airport, and transportation) and facilities serving Al Baha key economic sectors (e.g., industry, agriculture, and tourism), is of priority to the government. These elements are fundamental to increase market access, spur competition, and harness the productive capacity of Al Baha in order to heighten the city’s contribution to the regional and national economy (see figure 15).²⁴

Though Al Baha’s current economy is heavily focused in the public sector and traditional labour-intensive sectors, the government is working to foster development and innovation and is identifying economic leverages focusing on agriculture, manufacturing, 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 and result in innovation and economic diversification.²⁵

4.4.1 Financial system

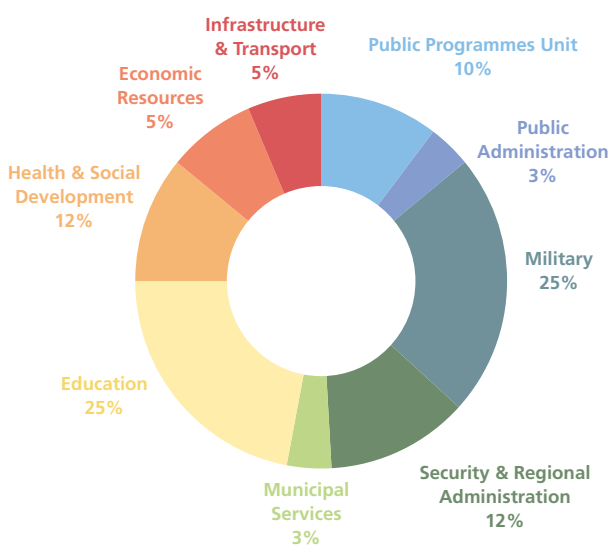
Sustainable urban and local economic development requires a sound and resilient municipal finance management system. Currently, the National Development Plan directs Al-Baha’s public finance system.

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), (see figure 18 and figure 17).

MoMRA, via the Amanahs,²⁶ 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 Emir and regional councils, fund and implement projects at the municipal level, (e.g., the Ministry of Education provides direct funding for city schools).

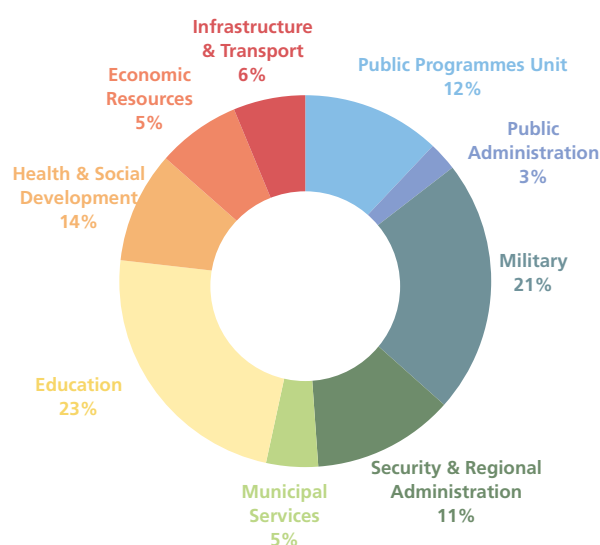
4.4.2 Municipal revenue

Currently, Amanahs have few sources of revenue and limited authority to collect fees. Although MoMRA introduced municipal fees, which expanded their own-source revenue base, local revenues remain insufficient. Consequently, Amanahs continue



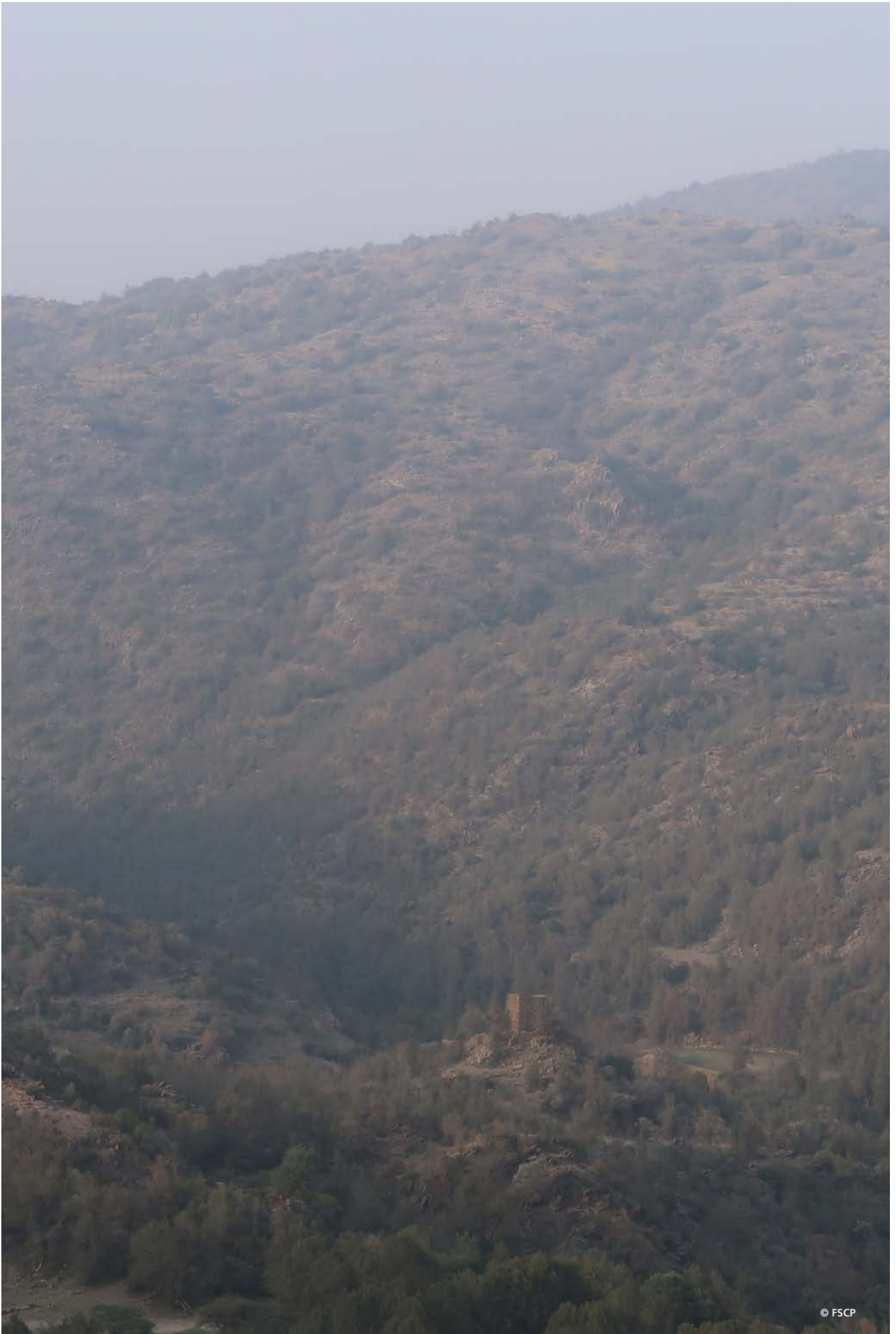
Source: Bhatia, R. (2017). Saudi Arabia Budget 2017. The Gulf’s International Bank.

Fig. 17. Saudi Arabia national expenditure by sector, 2016



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

Fig. 18. Saudi Arabia national expenditure by sector, 2017



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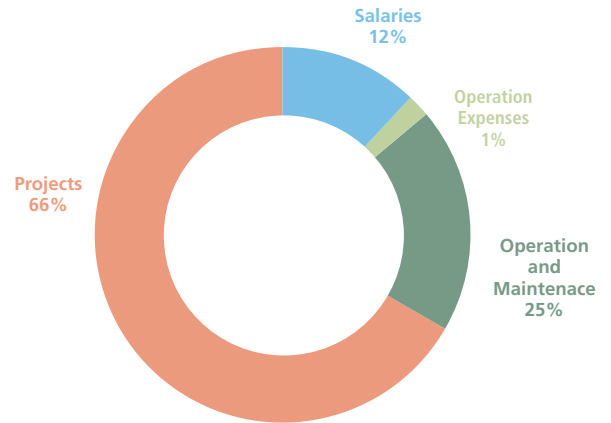
Steep topography in Al Baha Region

reliance on support from the central budget. Intergovernmental transfers from the MoF are based on annual budget proposals submitted by the various ministries. In MoMRA, the budget drafting process tends to be heavily influenced by the municipality's 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 approval to receive funding.

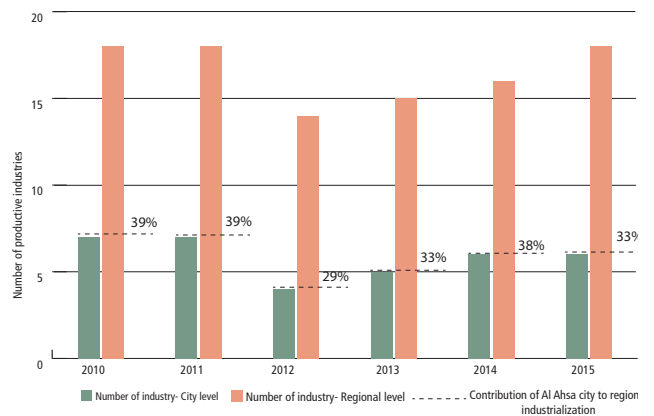
4.4.3 Financing municipal operating costs

In 2016, Al Baha collected SAR 34 million in own-source revenue, accounting for 9% of the city's budget²⁷. In an effort to improve municipal finance management and reduce the dependency on the central government, the National Transformation Program (NTP) directs the local government in the establishment of sound fiscal policies through the introduction of new financing instruments.²⁸



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

Fig. 20. Budget breakdown for Al Baha, 2017



Source: Saudi Industrial Development Fund. (2016).

Fig. 19. Productive industries in the Al Baha Region and Al Baha City, 2010-2015



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Identifying the major development nodes of Al Baha City

4

THE CURRENT CITY





5.1 Urbanisation Patterns

5.1.1 The city's development patterns

The city of Al Baha lays around 1700 metres above the sea level and is only a 1.5-hour drive from the shoreline of the Red Sea. The city structure is somewhat unusual for the Saudi Arabian context due to its unique topographical characteristics and a relatively low population of 111,173 people distributed within various urban development nodes.

In former times, Al Baha was considered a "green paradise" because of its characteristic topography and micro-climate. It had large forest areas and a vast amount of cultivated agricultural lands. With time, these agrarian lands have abandoned as the people prefer to migrate for work and education to the regions which provided better opportunities.

In contrast to other cities, there is no identifiable one big historical city centre as the city is an agglomeration of expanding farming villages which are well embedded into the existing landscape, acknowledging natural constraints and local topography. Vernacular urban patterns can only be identified as small patches spreaded over the various parts of the city. Nowadays those spread individual settlements have grown to a size where they create a network of development nodes with different importance and hierarchy.

The current assumed city centre of Al Baha only experienced development pressure within the beginning of the 21st Century. The areas between the historical vernacular settlement and the intersection of the regional roads continuously experienced infill especially after 1975. Since then, the built-up area has grown to more than 7 times. The growth along the main roads increased encroaching the natural and agricultural landscape notably within the last 20 years. This unplanned urban development is one of the reasons for the current fragmentation of the inner city.

Today the population of Al Baha is 111,173 inhabitants with a current growth rate of 1.74. This number is deemed to be low compared to the Saudi Arabian context. Nevertheless, it reflects the city's challenge of high migration rates for labour and educational opportunities. As with many other Saudi cities, Al Baha is facing a challenge of a growing young population; 58% is younger than 30 years of age, and this creates a necessity for the city to prepare for future needs regarding the provision of residential units, a supply of educational facilities, open and public spaces, as well as services and public infrastructure.

POPULATION



POPULATION DENSITY on built-up area



AGE PROFILE



POPULATION GROWTH RATE



139,490 Expected population by 2030

AL BAHA CITY COMPARED TO GRENOBLE

Population: 160,649
Area: 3,732 ha
Density: 43 p/ha



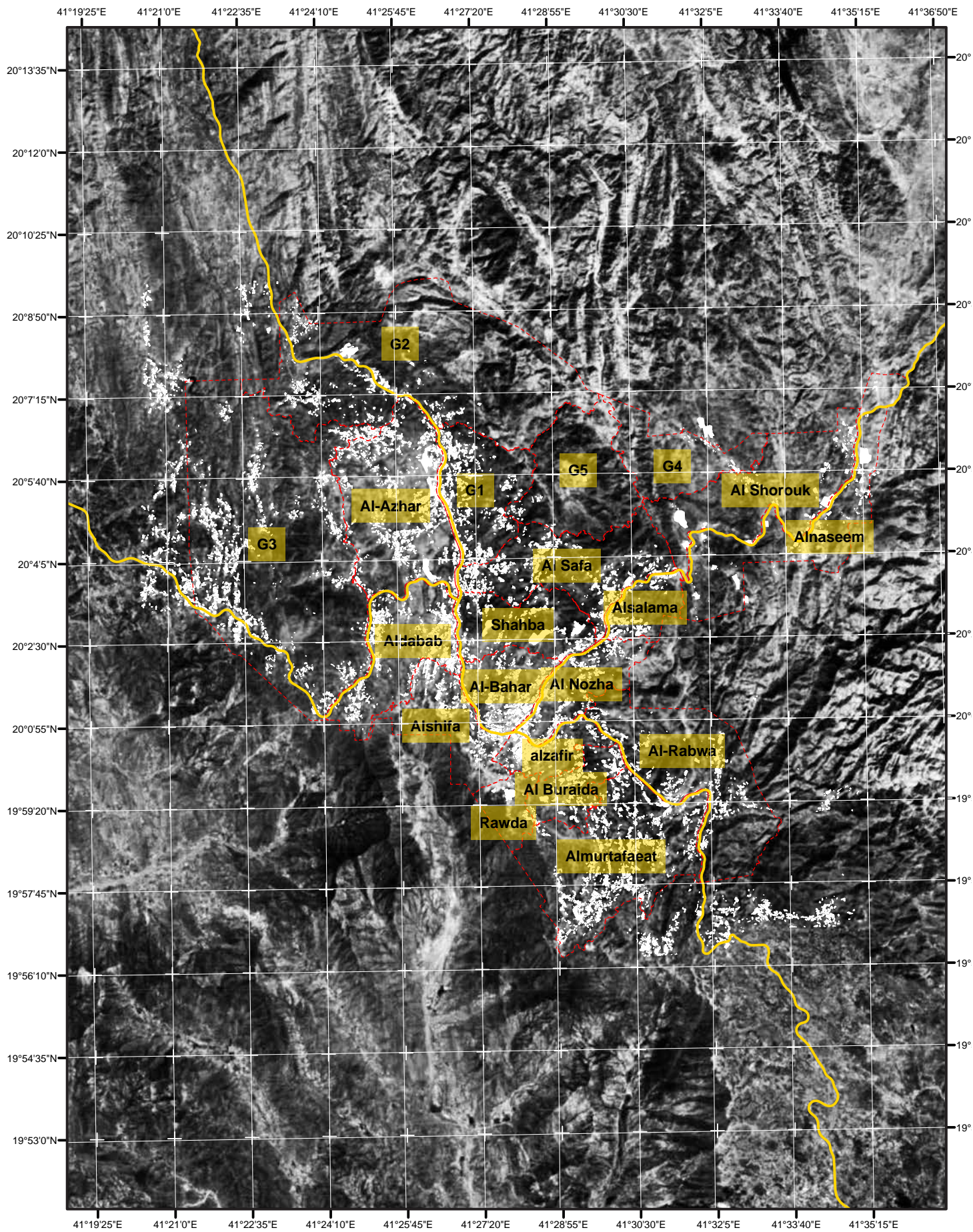


Fig. 21. Boundaries, neighbourhoods and key infrastructure

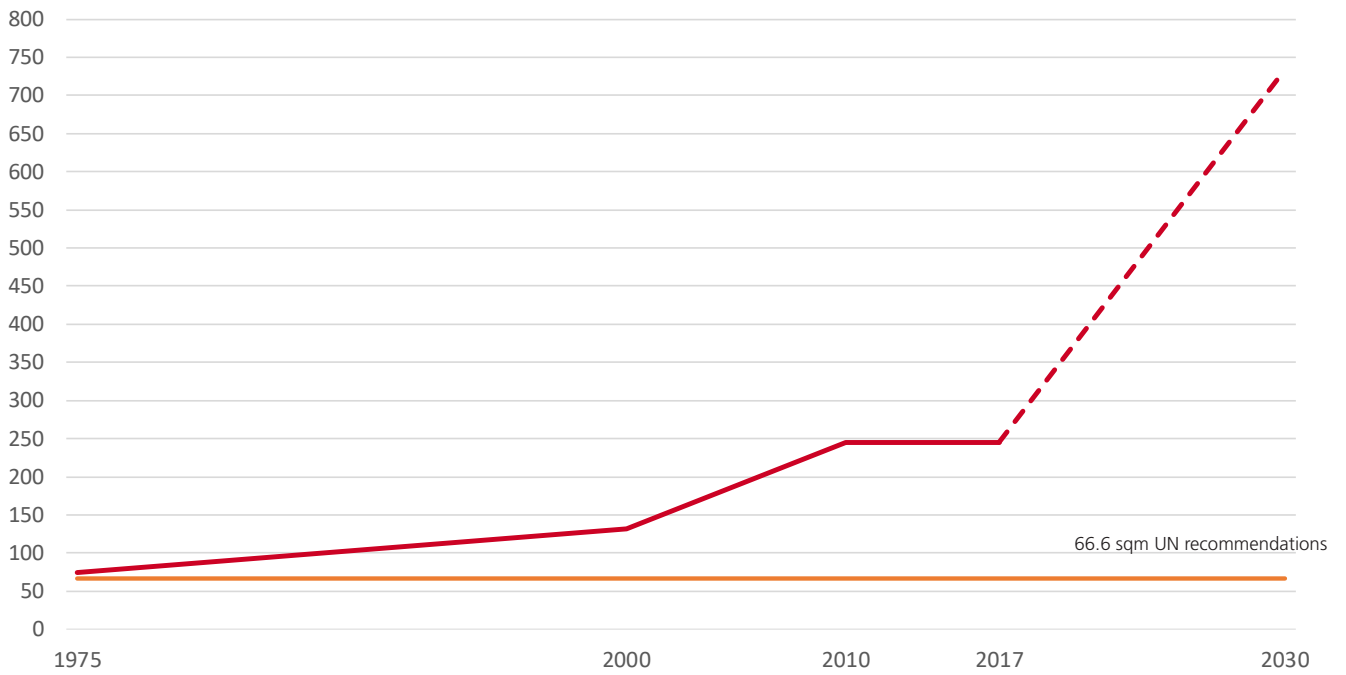
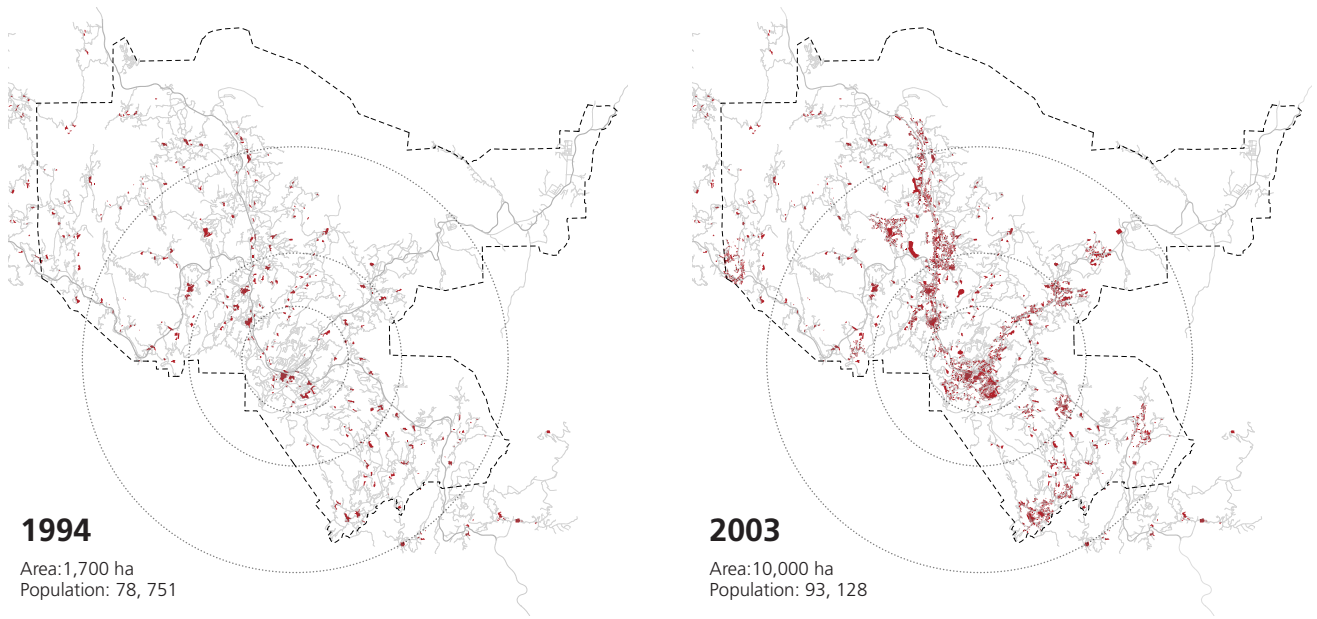


Fig. 22. Land allocated per capita

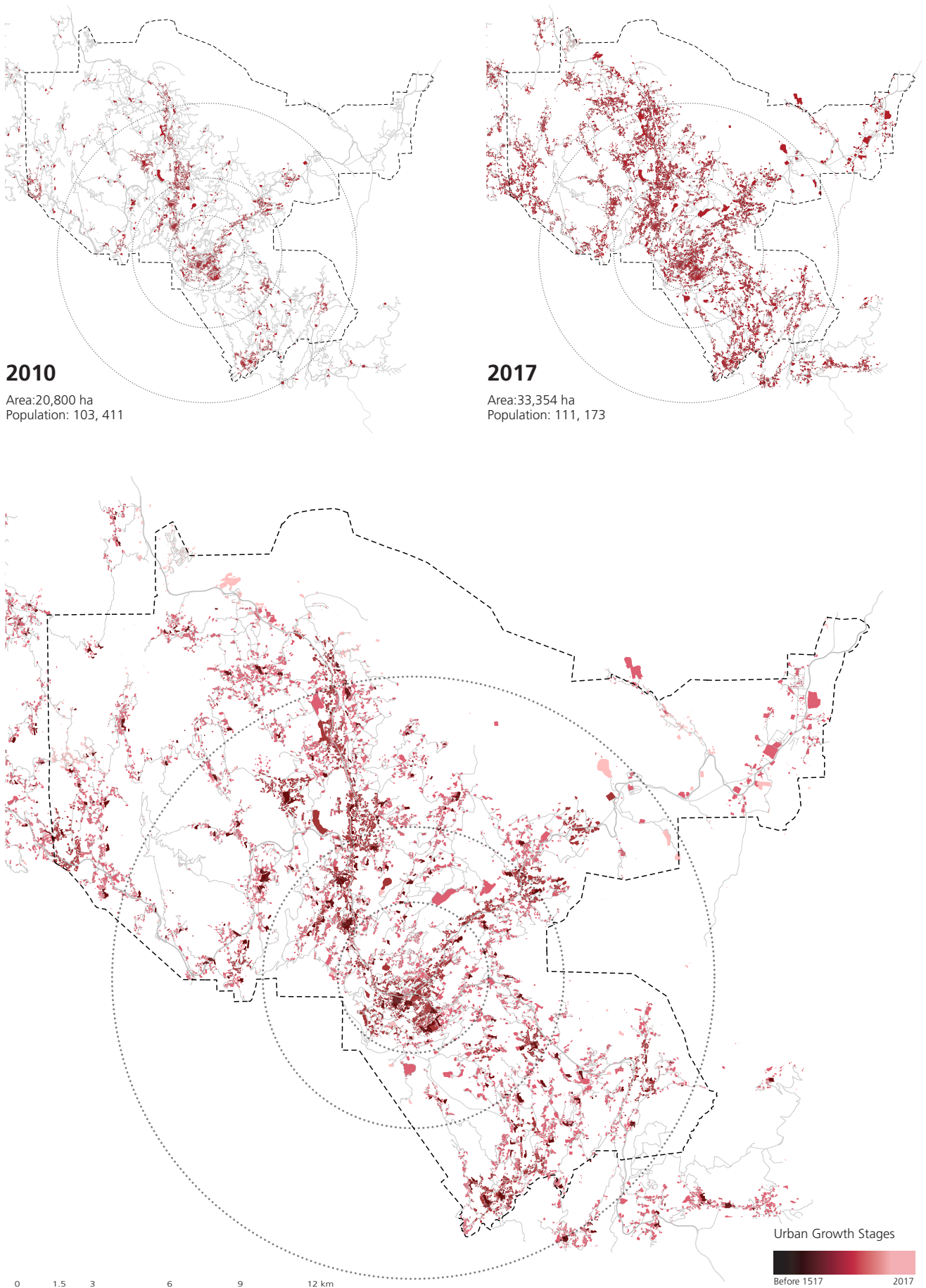


Fig. 23. Urban growth stages

Development nodes

Multi-modal structure of the city is one of the unique characteristics of Al Baha. Simultaneously, it leads to a fragmented and disconnected structure of the city. These nodes are the result of the continuous expansion of the historical settlements which used to be individual farmer villages.

Each one of these nodes features distinct peculiarities like certain agricultural products or crafts. Today, all of these nodes are supplied with religious and primary educational facilities. Many of them have only limited access to health services. The city centre is the largest of these nodes concerning size and population.

The map shows the identified central development nodes. Due to their size and location, they should become a priority for development regarding densification and improvement of accessibility to services.

The development nodes can be classified in three very distinctive urban patterns within the built-up urban structures of the city. The most common one is the agglomeration of small communities/development nodes with mainly residential function, typically expanded nearby or adjacent to historical vernacular structures. The majority of these nodes are located within the periphery of the city. The access to any services apart from public facilities depends on commuting. Another strong pattern is the concentration of mixed-use and retail functions, sprawling along the main and regional roads. Residential

developments can be identified as well, but those clusters usually develop offside, keeping a buffer zone to separate from regional roads. The city centre represents the third structure. The mixed-use core features residential, commercial, administrative and some agricultural lands. However, due to its fragmentation, it lacks a clear identity and urban structure. Commonly, all of these patterns feature lack of public and open spaces and are in great need of the improvement of the public realm.

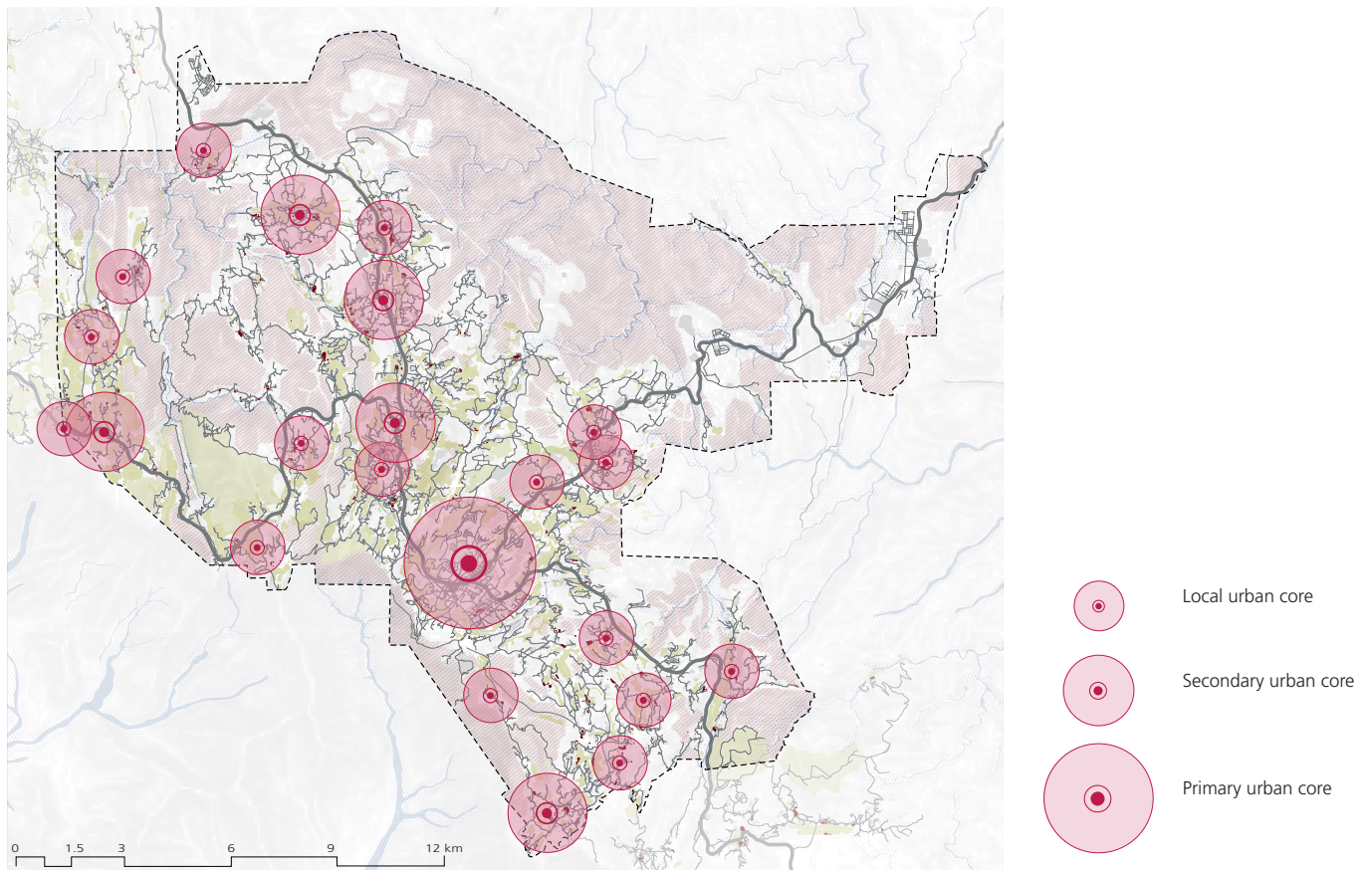


Fig. 24. Al Baha's development nodes

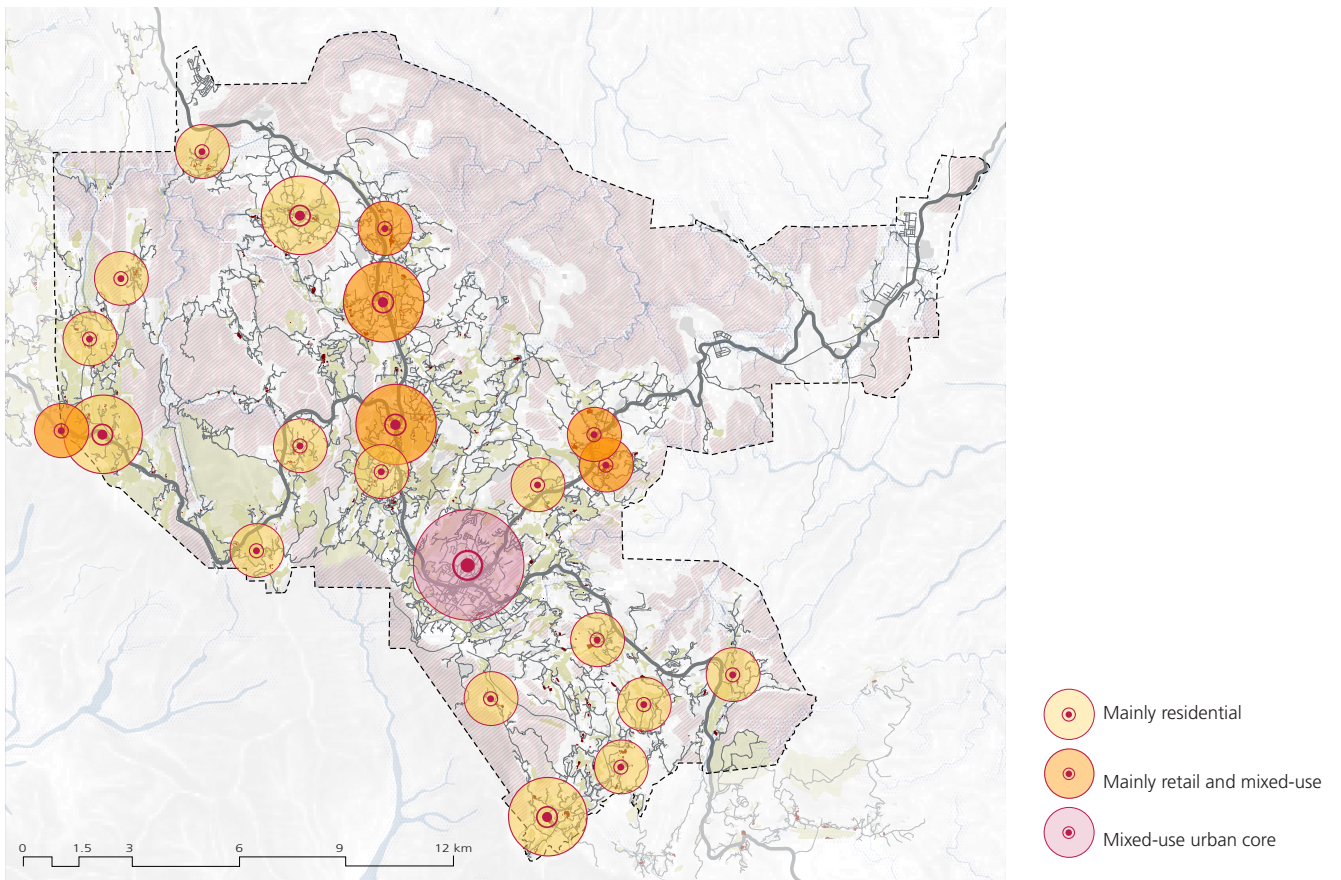


Fig. 25. Functional nodes of Al Baha



Developments along the major regional road



5.1.2 Administrative boundaries

Three administrative boundaries are determined to regulate the urban growth of Al Baha: the 1440 Urban Growth Boundary, the 1450 Urban Growth Boundary and the Development Protection Boundary.

- the 1440 UGB captures an area of 29,274 hectares.
- the 1450 UGB has a slight increase of 2,886 hectares when compared to the 1440 UGB, and covers an area of 32,160 hectares.
- the DPB demarcates a no-development zone to prevent urban sprawl outside the UGB with the total area of 49,604 hectares.

Al Baha's considerable amount of area which appears to be vacant sets on steep slopes. Due to this unique topography, large shares of the land within the boundaries remain unsuitable for development. The land area determined as undevelopable just for this reason accounts for nearly 13,379 hectares within the 1450 UGB. Considering the long-term sustainability and resilience of the city, also the agricultural land has to be added to the zone not recommended for urban development. In total, this sums up to 17,104 hectares that represents 53% of the total area within the 1450 UGB. As a consequence, the administrative boundaries cannot be considered a suitable tool to guide the future urban growth of the city.

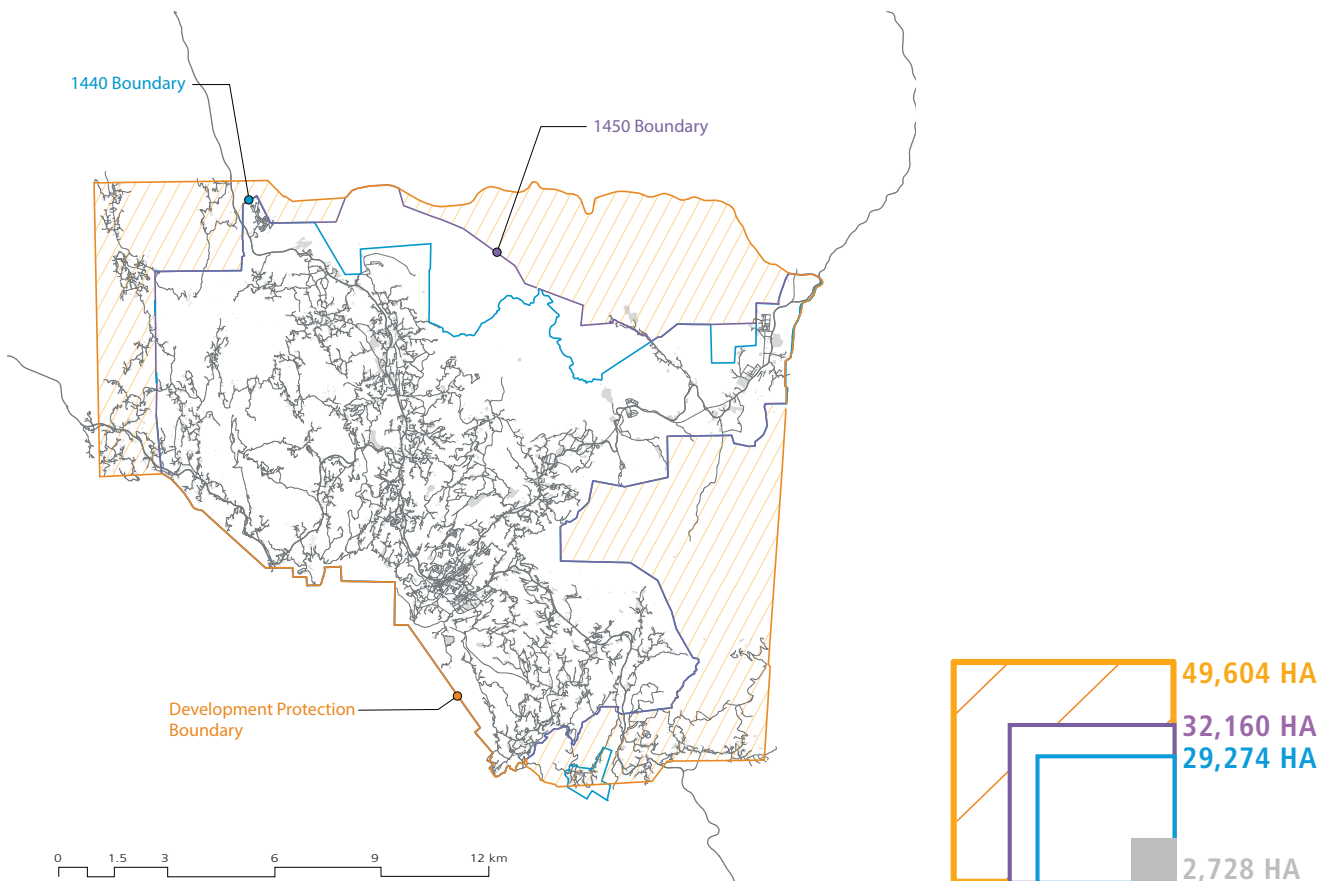


Fig. 26. Administrative boundaries

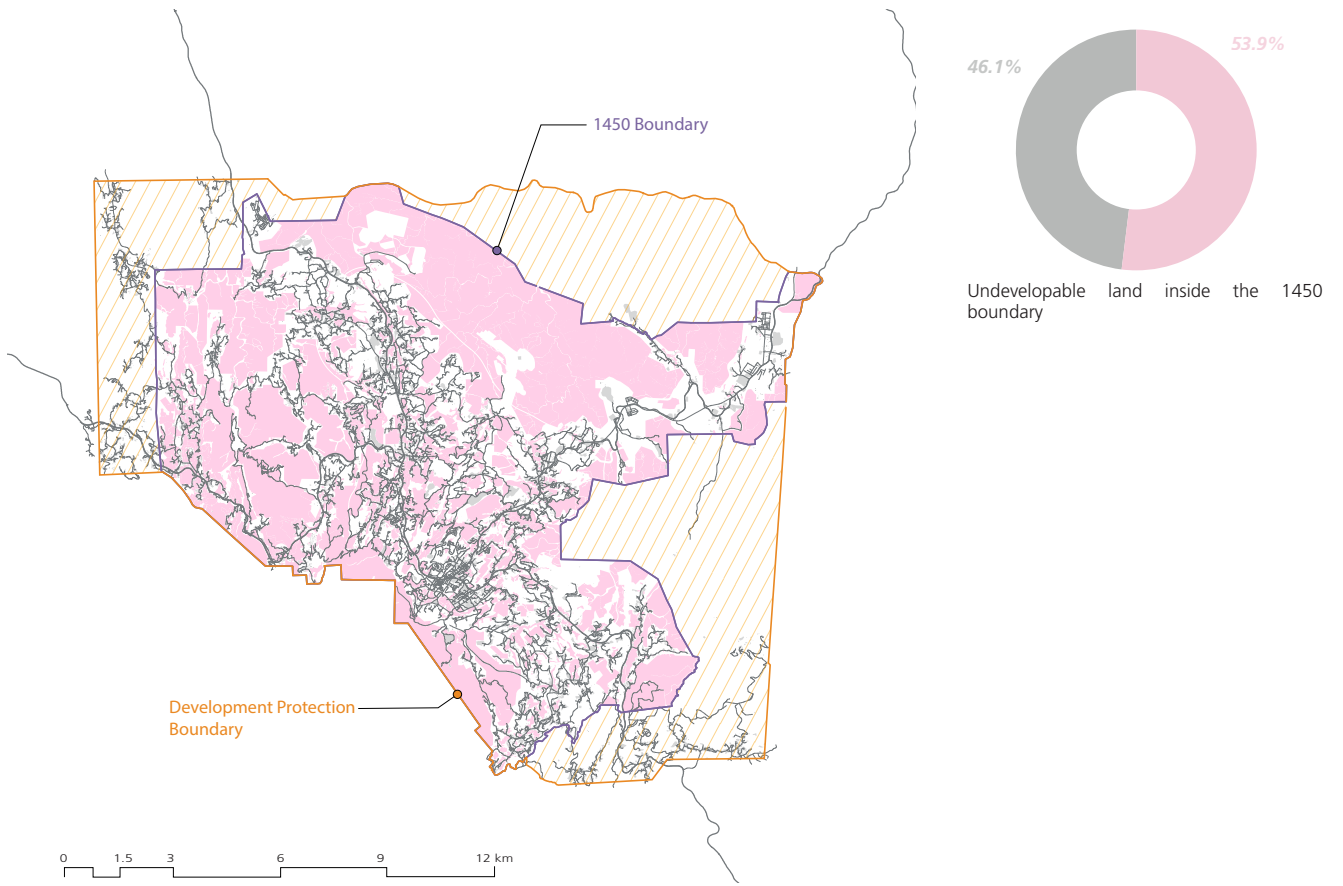


Fig. 27. Undevelopable land



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Steep hills around Al Baha



5.1.3 Urban density

Generally, the city experiences low to very low densities, especially in comparison to the recommended UN-Habitat density of 150 p/ha for sustainable cities. However, while considering Al Baha's growth and density, one must acknowledge the rural nature of the town. Farms and settlements supporting them will generally produce much lower densities than average city fabric. Hence, the UN-Habitat recommended number becomes less relevant in this context. Nevertheless, the residential and mixed-use zones mostly appear to be underdeveloped. Consequently, there is unquestionably room for improvement.

Up until 2000, the average density stabilised at 76 p/ha. Since then, this number has been decreasing to reach only 40.8 p/ha today. In comparison to other major Saudi cities, these values for rural development nodes were considerably high. Notwithstanding, the average density has been steadily decreasing over the past decades, which causes a threat to the sustainability of the primary nodes and the city as a whole.

The density analysis for Al Baha shows that the city experiences radial decreasing densities. These densities vary from 1 up to 73 p/ha. The city centre as major development node features the highest densities, but only inhabits 7% of the population or 7,826 inhabitants. Other relatively medium densities, about 35-55 p/ha are mainly found along the major regional roads and the adjacent development nodes. About 17% of the

population live in these areas. Subsequently, the majority of the citizens live in very-low and low-density areas. The lower numbers are found about 5 kilometres from the city centre in the larger, mainly residential development nodes. These areas feature densities of 25-34 p/ha while the lowest densities of 1-24 inhabitants per hectare are found in less accessible peri-urban areas. Far-west areas are disconnected due to the topography and simultaneously only feature very low densities. Combined, the very low and low density areas inhabit more than half of the population, about 65,981 people or 59,35%. The current development trend of sprawling low densities threatens the sustainability and reduces the accessibility for the citizens.



View form of Al Baha

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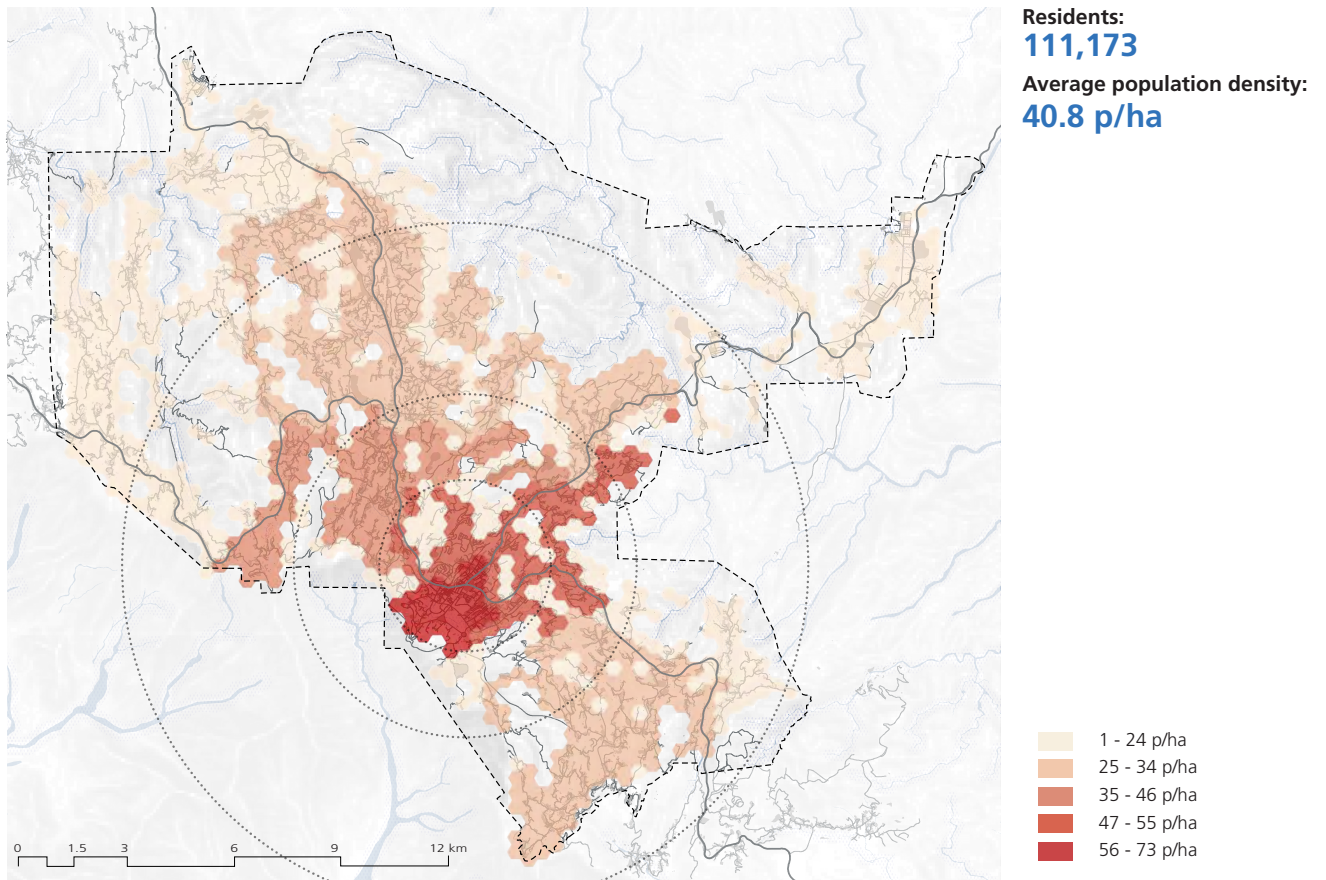


Fig. 28. Distribution of population density



City centre of Al Baha



5.1.4 Land use

The topography and the morphology of the agricultural land actively shaped the current land use development. The terraced agrarian lands, which follow the natural landscape of the mountains and the valley, represent the highest share of land use in the city. About 49% of the total land use is dedicated to agricultural activities in addition to 9% of forest land.

Other existing land uses are scattered but still balanced. Mainly the distribution of services, especially daily goods and special-uses is problematic. Most facilities and business areas, which account to 3% of the total land use area, are located within the city centre and along the main roads. This concentration of uses makes accessing them challenging and causing long commuting times.

The city centre serves as the CBD of the city and region. It is the central administrative zone with business services located within. However, major public facilities such as the universities are spread over the city.

In the current land use plan, the amount of residential land is rising from 23% to 58%, of the city results in a major loss of the fertile agricultural lands. Only 5%, 513 hectares of the areas of the farm lands will remain. This causes potential harm to the well functioning ecosystem. Further, it anticipates to densify and strengthen the importance of the city centre and the service spines, the main roads, which increases the total area assigned to retail and mixed-use functions to 3% from 8%.



Commercial street in the city centre

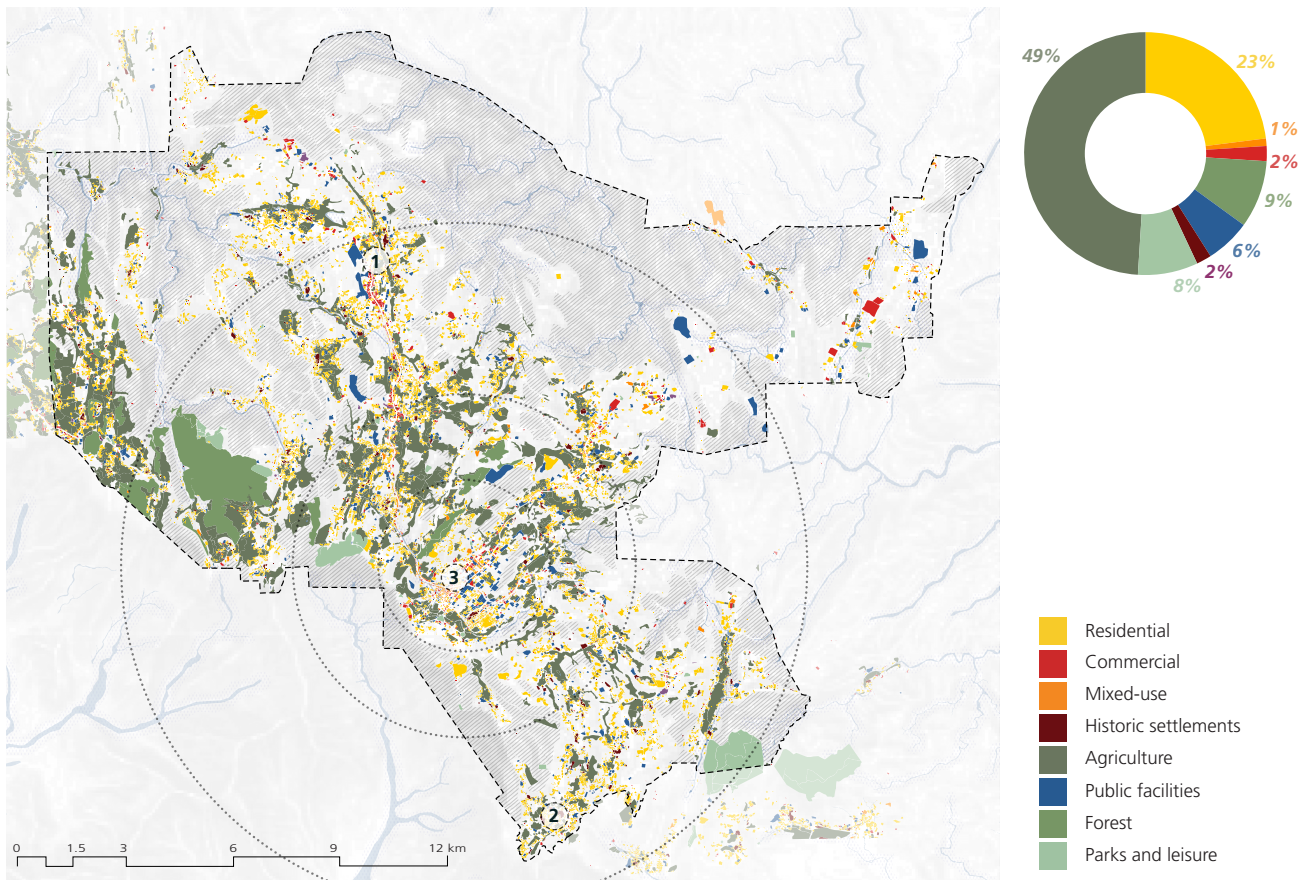


Fig. 29. Existing land use



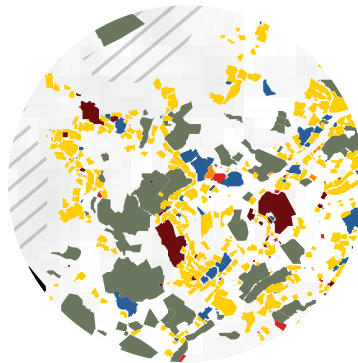
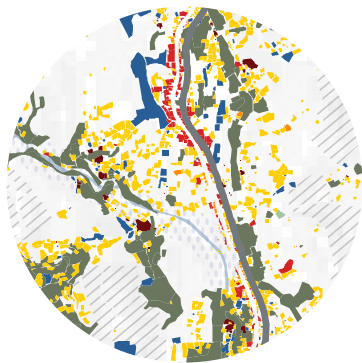
1. Sprawl along major regional roads



2. Agglomeration of small communities



3. Fragmented city centre





5.1.5 Vacant land

Due to the local topography constraints and ownership issues, it is undoubtedly a challenge to determine the actual available vacant lands within the city. The tribal structures, even more, complicate the process of developing and making land accessible. Due to the inheritance procedures, one property generally has a large number of owners which all have to agree to sell or develop and accept the offered compensation schemes. In this context, the land is considered one of the universal highest valuables.

Taken all this into account, the available land area within the 1450 UGB offers 12,328 hectares for future development (subtracted the agriculture and undevelopable areas because of the topography). Nevertheless, this still exceeds the need for urban expansion by far. Furthermore, within the existing urban footprint, there is still 1,643 hectares of vacant land available. Considering that Al Baha may experience an increase of only 28,317 inhabitants until 2030, this vacant land is more than sufficient to accommodate the future population in a much more compact and sustainable manner.

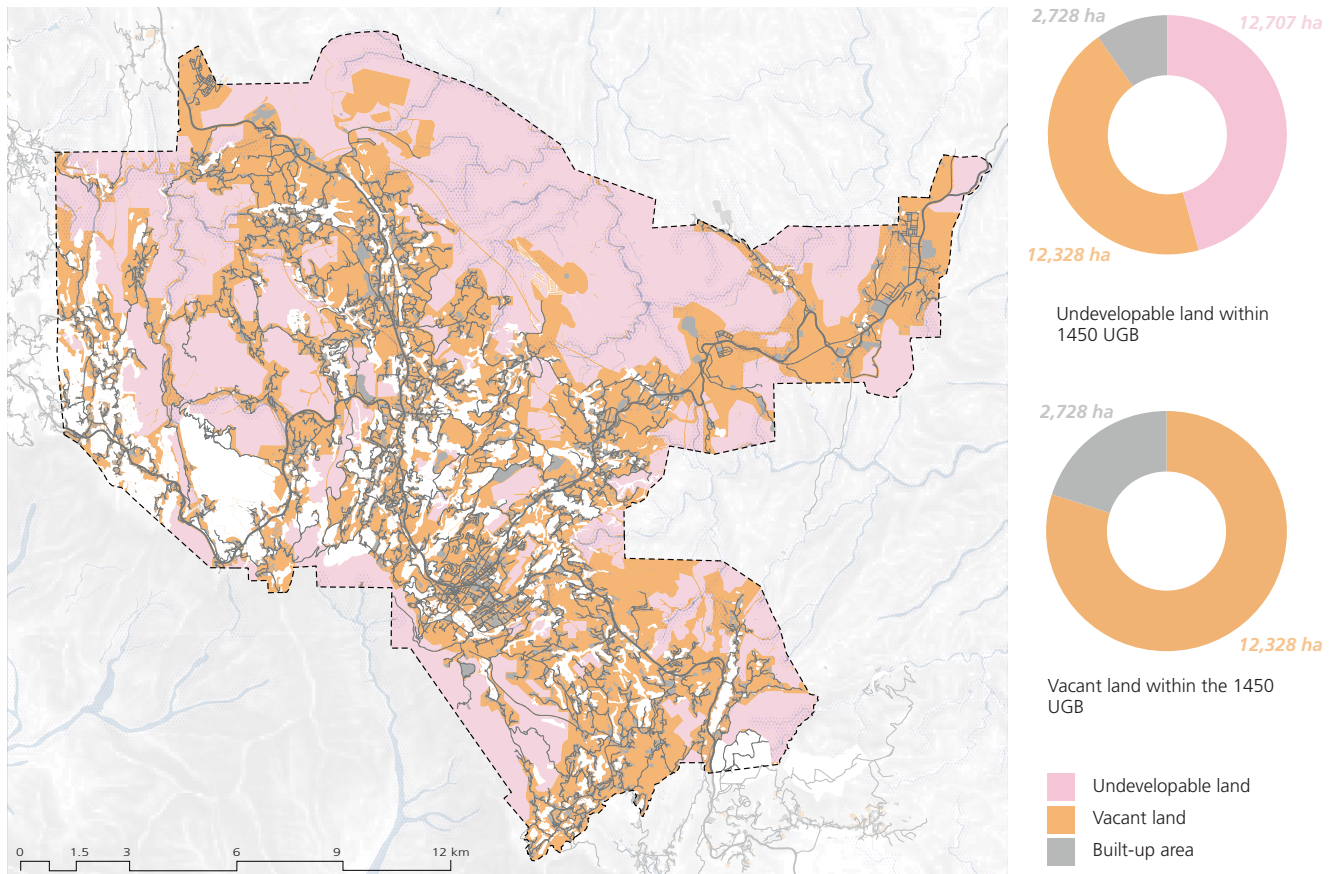
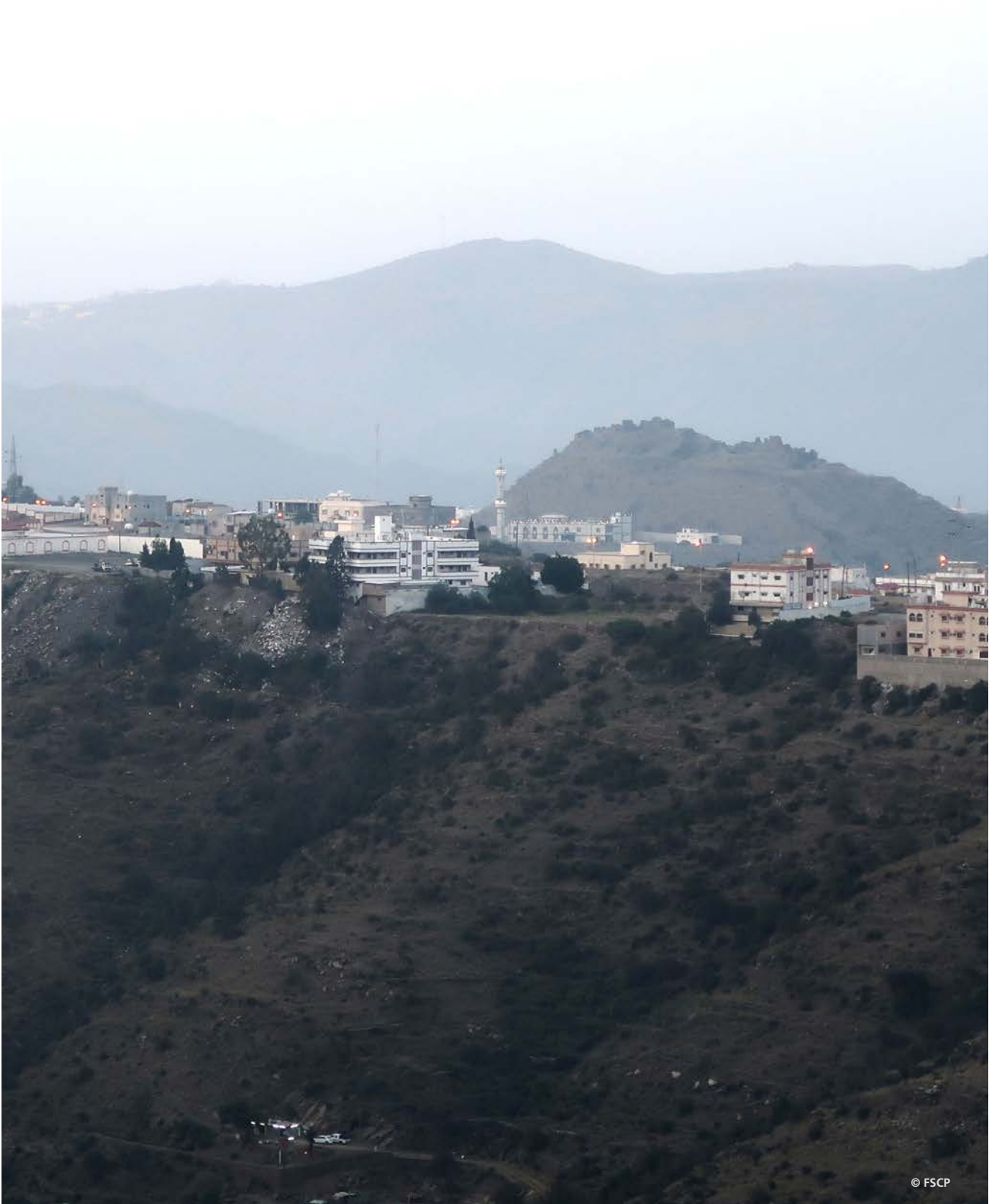


Fig. 30. Vacant land and undeveloped areas



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Impact of topography on the urban development



5.2 Structuring Elements

5.2.1 Major infrastructure and economic nodes

The city is the administrative capital of the region, featuring the primary governmental and regulatory services. These can be found in the city centre among other business and service uses. The main commercial and retail activities, as well as some logistic clusters, are concentrated along the main regional roads.

Besides the topography, the large regional roads are a structuring element which divides the urban fabric. It becomes visible in the structure of the city centre and along the major transportation channels as the developments have expanded to both sides of the roads. However, the regional streets were initially not planned to become part of the urban fabric.

The main economic activity of the area is within the agricultural sector. Due to the availability of land, vast flatlands, and access to raw materials the industrial and logistics industry is not well developed.

More extensive public facilities such as the university and the hospital are far out of the city. Likewise, the domestic airport of Al Baha is located far from the city centre as the topography of the region limits suitable locations for such an extensive development.



Overdimensioned and cost intensive interventions like the construction of the intersection of the new Ring Road

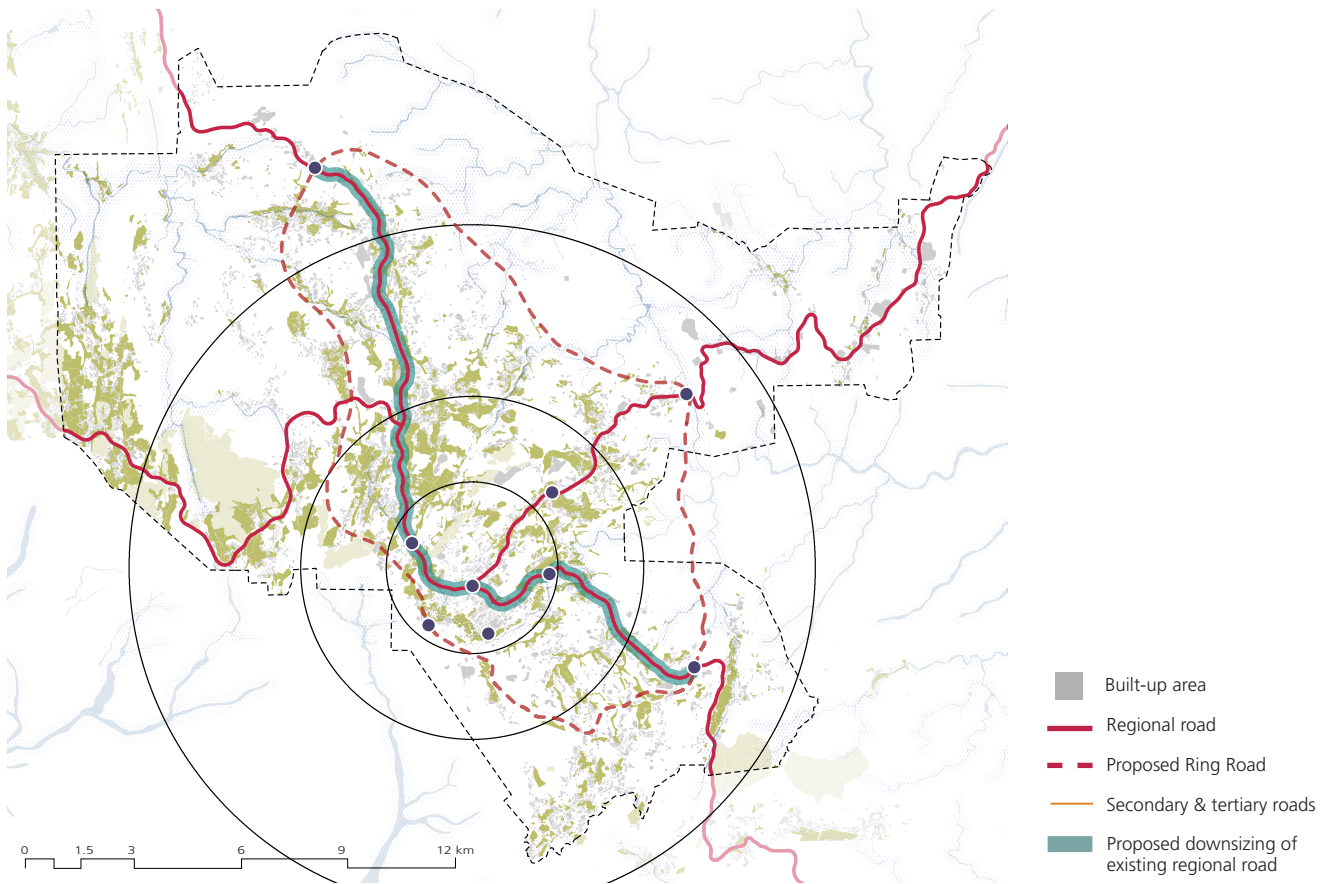


Fig. 31. Roads infrastructure

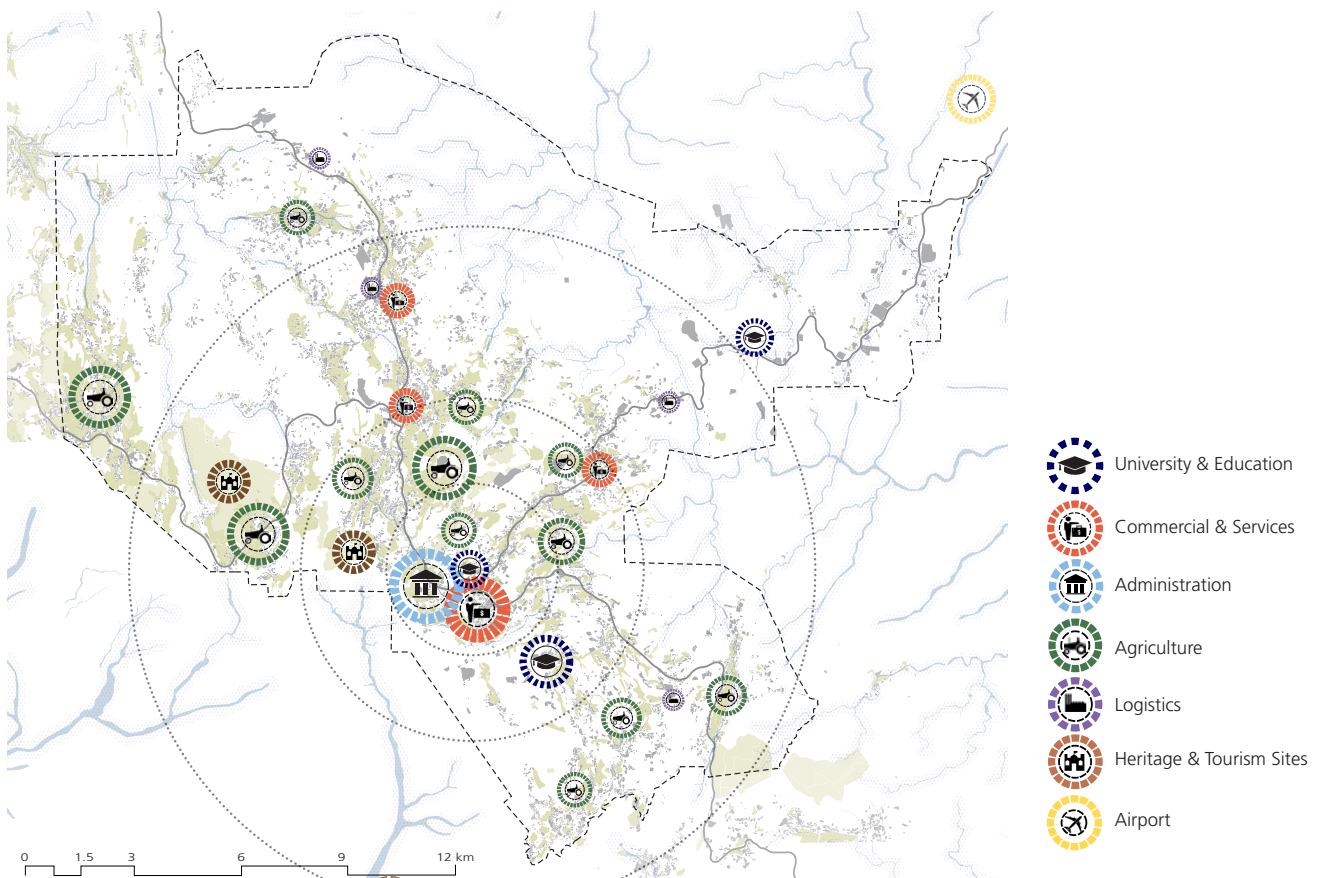


Fig. 32. Economic nodes and network



5.2.2 Natural and topographic elements

As mentioned in previous sections, Al Baha is located about 1700 metres above the sea level and has been known as the "Garden of the Hejaz" due to its abundant vegetation and climate. It has, in the broader sense, preserved its character until today. Throughout a year, the city experiences either rainfall or high humidity. It provides the perfect conditions for natural vegetation and agricultural activities.

Despite continuously decreasing the areas of its agricultural lands the city can be considered a well-functioning ecosystem. There are currently only 3,725 hectares of farms remaining. Water shortage and labour migration are the primary origins of the process to abandon those lands. The new development plan anticipates converting a large share of agricultural land into built. Until 2030 a total of 4,225 hectares will be lost if compared to the area dedicated to farming back in 1975.

Sadly, the city of Al Baha faces the possibility of flash floods. This type of floods suddenly occur during the rainy season and put the low lying roads and also a small percentage of urban developments at risk.

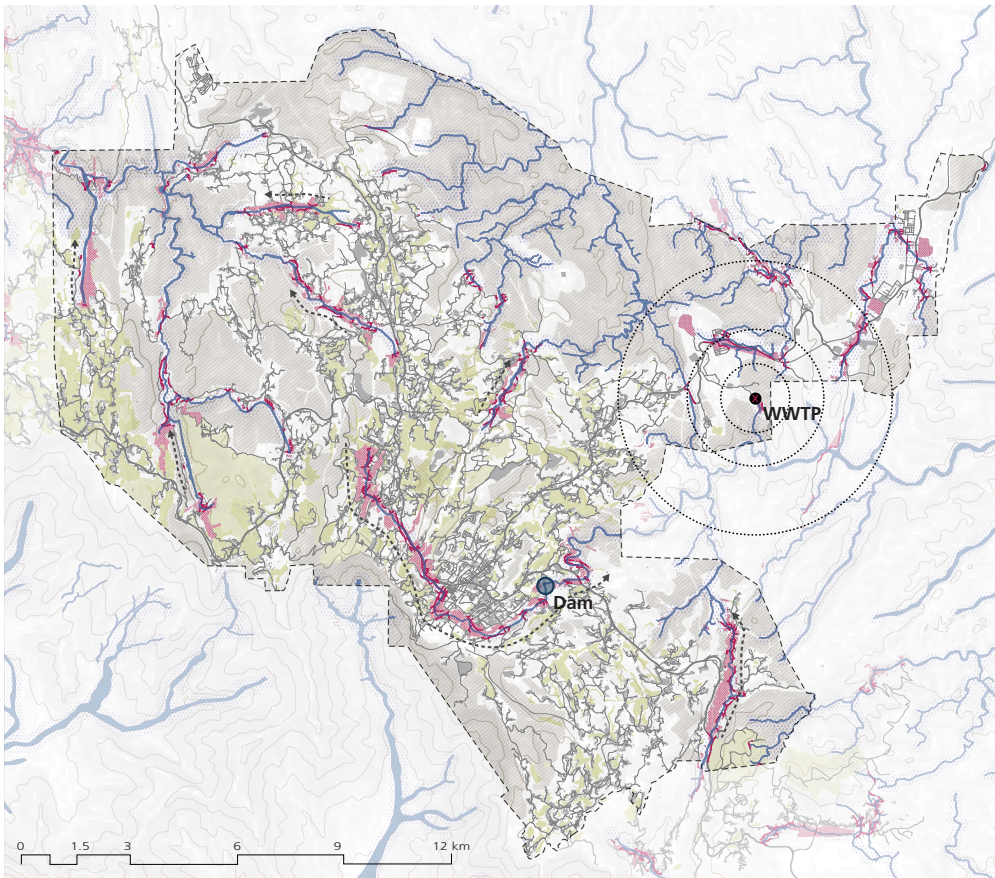
Environmental pollution is a substantial threat the city. Solid waste is a particular problem as it is visible and destroys the city's image. The lack of awareness of the citizens towards environmental issues needs to be improved.

Current development trend needs to be mitigated to maintain sustainability. Otherwise, it will cause a significant harm to the functionality of this system and the identity of the city. Furthermore, it threatens the economy and food security as the city and the region have a firm reliance on farming activities. Water scarcity and increased temperatures are two of the leading environmental challenges the kingdom has to be prepared to face in the future.



Agricultural land within the city

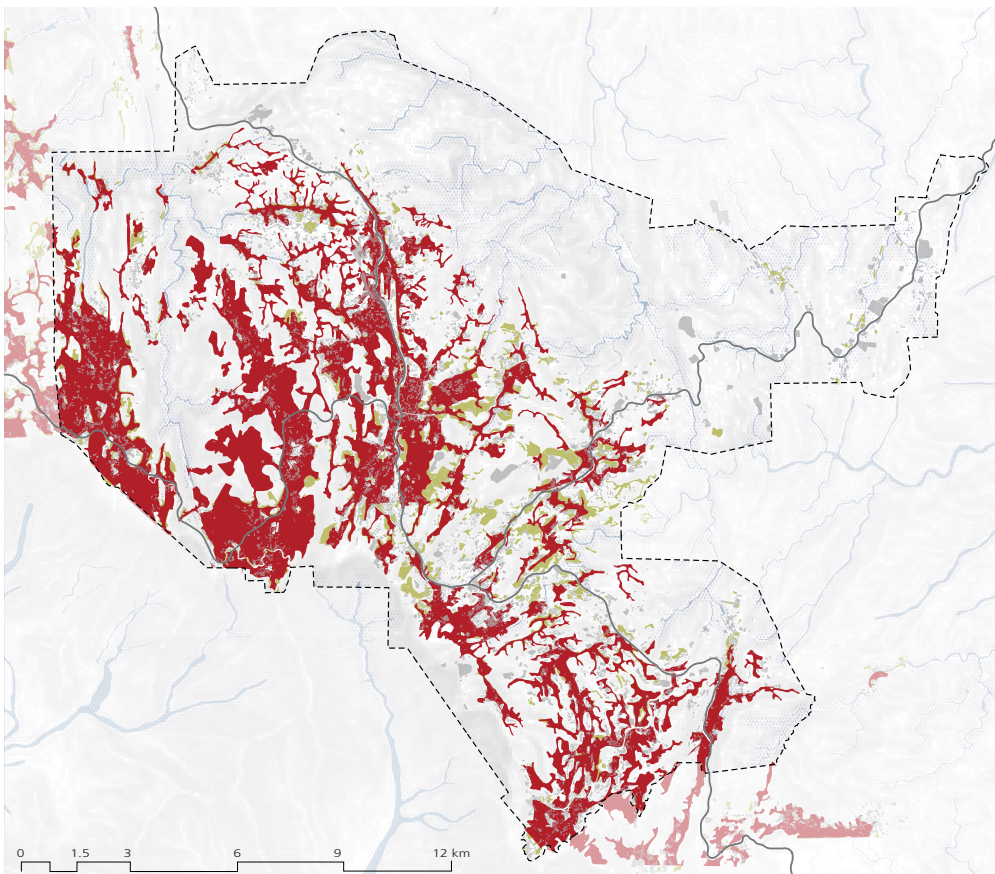
© MOMRA



Most threatened are the roads and neighborhoods in the low lying areas of Al Baha

- Built-up area at flood risk
- Roads at flood risk
- Undevelopable land
- Built-up area
- Wadi protection
- Wadis
- Forests
- Agricultural land
- Flow of water streams
- WWTP - Waste Water Treatment Plant

Fig. 33. Blue and green networks



- Loss of agricultural land
- Remaining agricultural land

Fig. 34. Loss of agricultural land from 1975



5.2.3 Historic settlements

The historic vernacular pattern spreads across the city and the region embedded into the existing landscape. Most famous is the “Dhee Ain Village” - listed in the UNESCO World Heritage Sites. It has been restored to become one of the leading tourism attractions in the region. These structures are an example of architecture perfectly adapted to the local climate.

Within the city, there are several forms of handling/integrating the remains of the historic structures into the existing structures. Some are individual landmarks, and some are being overbuilt, others connected by building up the land in between or expanded with new developments. Noteworthy, instead of destroying, the residents keenly integrate the vernacular structures by using them contemporary as gardens, storages or even extend and renovate them for residential purposes. However, a general preservation strategy is essential to avoid further deterioration of the structures which are currently abandoned.

Even though the city has such unique historical richness, the authorities have not well-enough exploited its potential to contribute to the development of Al Baha. The settlements are recognised in the development plan, but the city lacks a tourist/heritage development strategy, that would be integrated into the overall urban development plan.



Historic settlement within the city centre of Al Baha

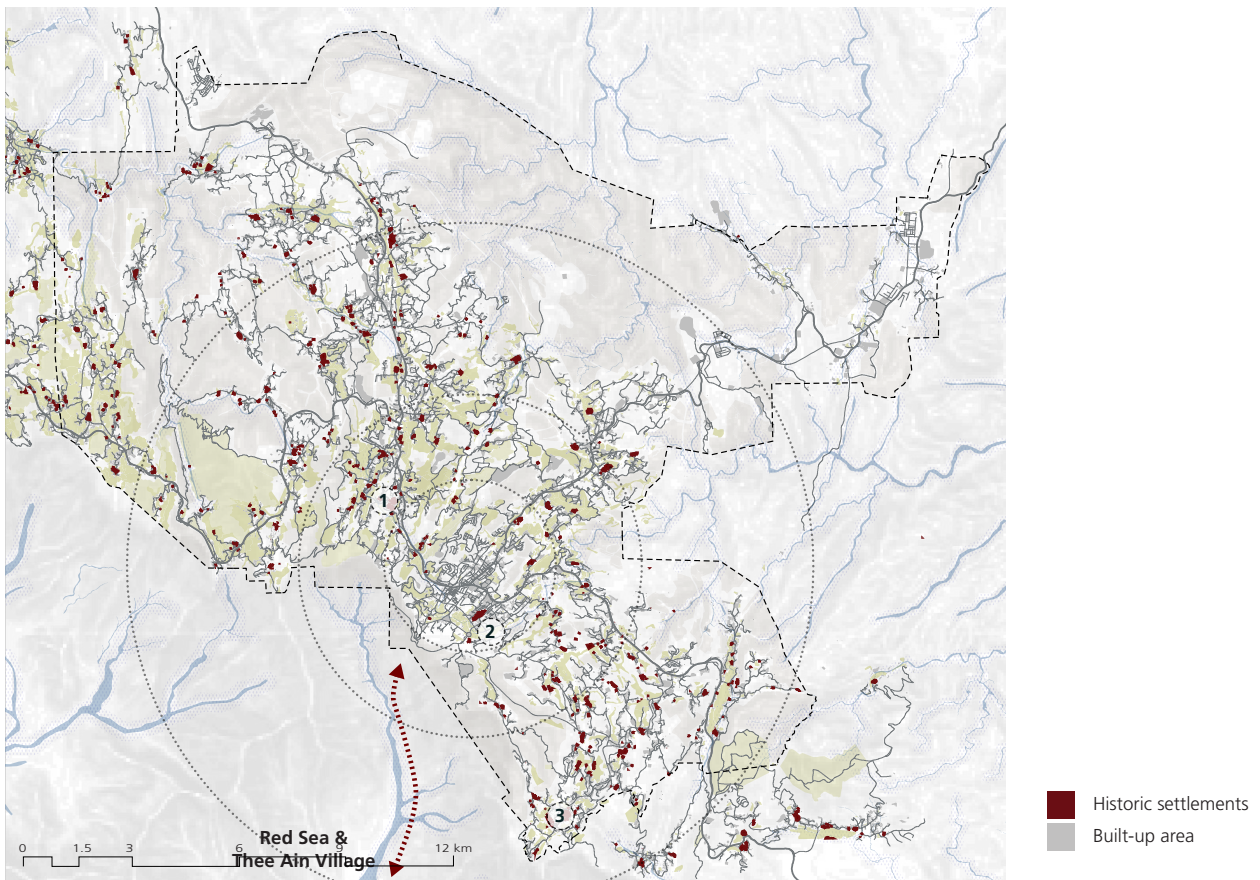


Fig. 35. Historic settlements and structures



1. Merging of historic settlements



2. Partly overbuilt vernacular structure



3. Expansion of vernacular pattern



5.2.4 Movement and accessibility

Regional roads connect the city of Al Baha south to Jazan via Abha and north to the urban corridor of Makkah, Madinah and Jeddah. The secondary and tertiary road network is strongly dependent on the topography forming a vernacular road layout. However, about 77,678 inhabitants, or 70% of the population, have access to the main centre within 30 minutes, which is considerably high taking into account the previously mentioned local conditions.

As each of the development nodes was provided with essential public services, the accessibility within the city is well balanced. However, the connectivity to the main centre and special-use areas require long commuting times as they function as monofunctional clusters and are not well distributed. On average, the city experiences a relatively low access to services, only 6% to retail/commercial services and even less, about 4%, to the mixed-use zones. The majority of these services are located along the regional roads which results in strong car dependency.

Low-density development nodes are less connected to services and public infrastructure, particularly to health services. Basic education is widely accessible as each village has its mosques and schools. Medium density developments around the city centre have more balanced coverage and accessibility to both, health and educational facilities. In total, about 40.5% of the population has access to educational facilities within

5 minutes walking distance. This number increases to 60%, about 66,083 people, within a 10-minute walking distance. However, the accessibility health services is more limited. Only 17% of the citizens have access to medical facilities within 5 minutes walking distance.

Walkability is so far not a mode of travel considered by the residents. It is anticipated to improve the walkability within the development pattern of each development node and between the nodes. The walkability analysis reflects this need of improvement, only 10% of the total population have access to the centres within a 5-minute walking distance and 17% within 10-minute distance.



Disconnected facilities from the city centre like the Hospital of Al Baha

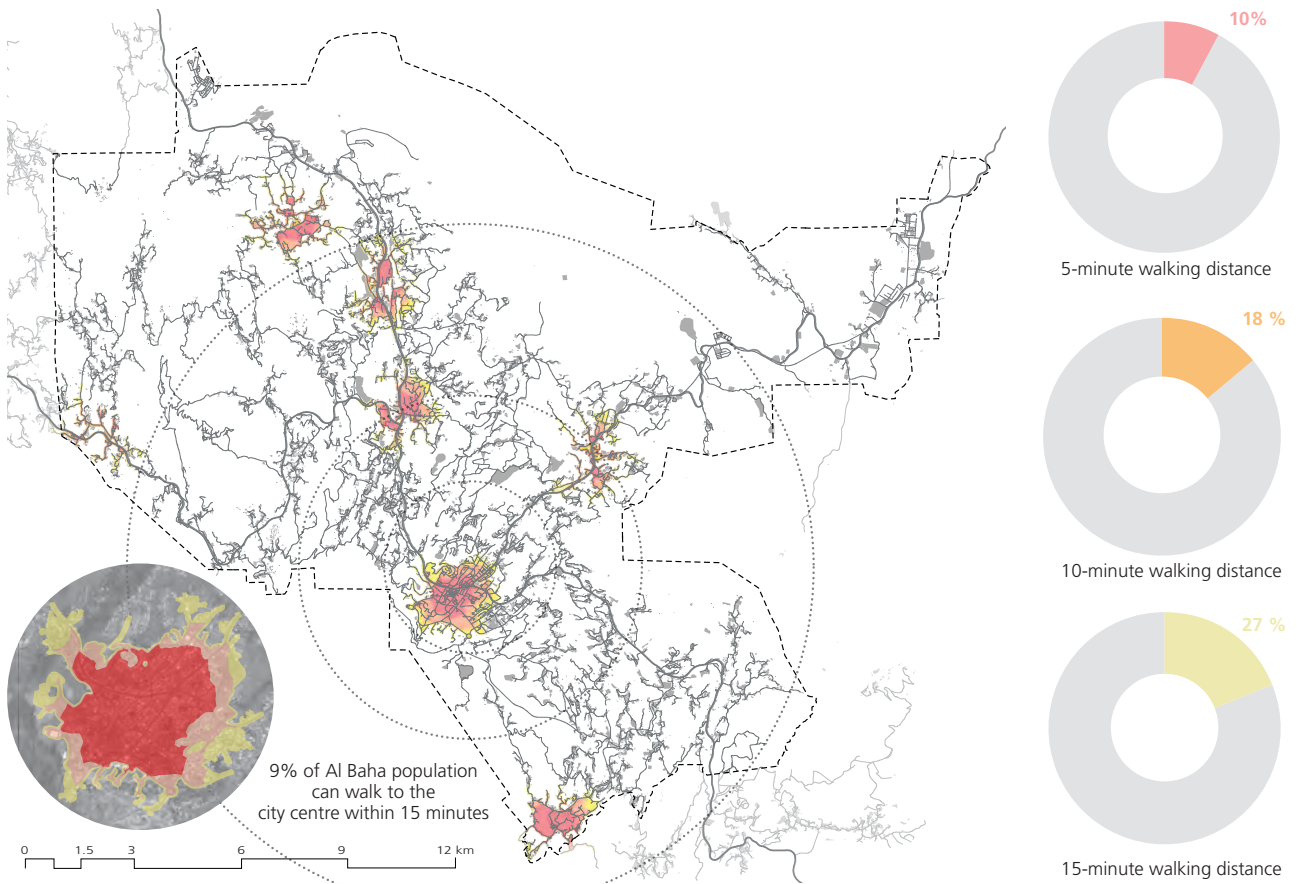


Fig. 36. Walking accessibility to the city centres

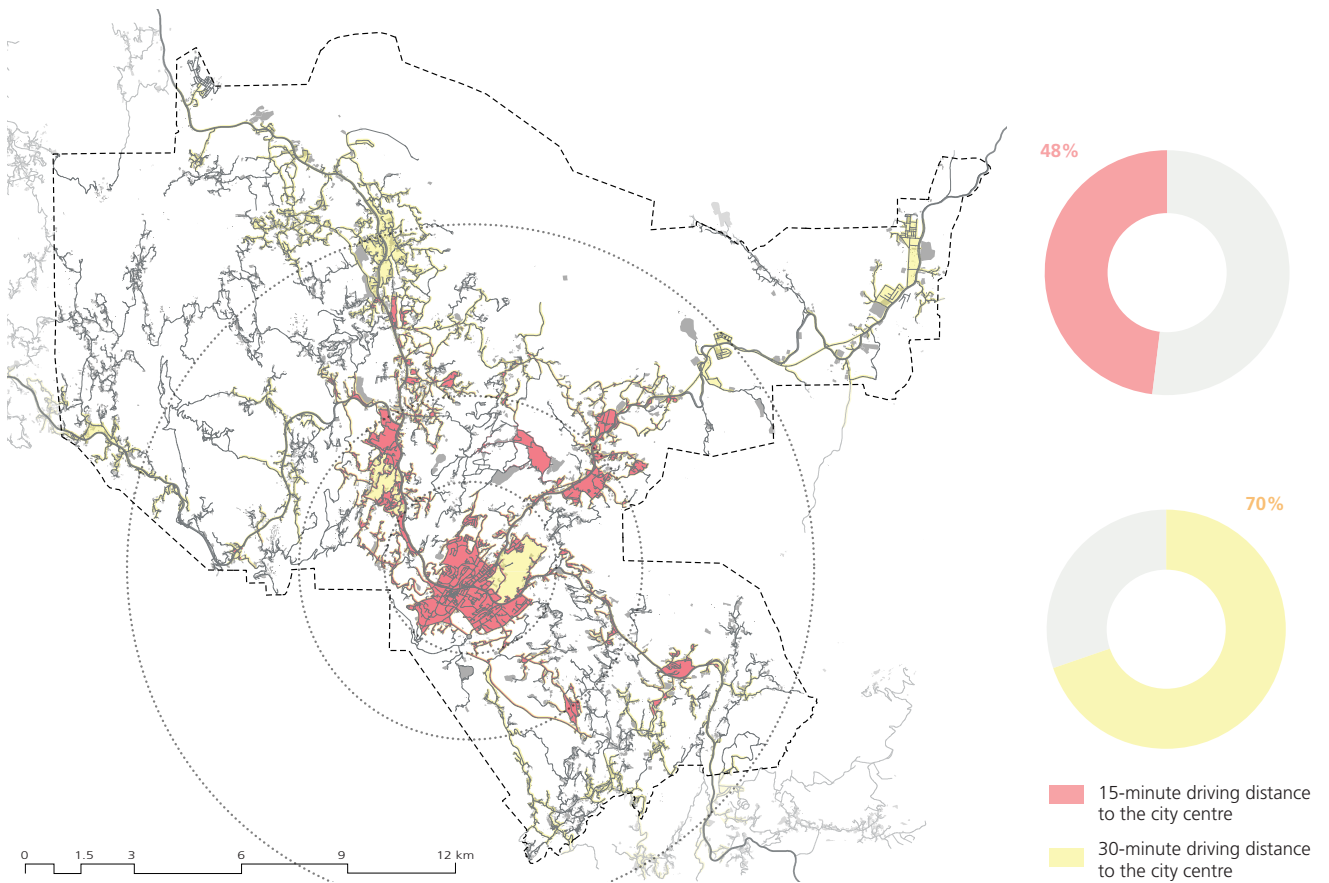


Fig. 37. Driving accessibility to the city centres



5.2.5 Al Baha Local Plan

The existing development plan of Al Baha; which is prepared in 2014 by MoMRA and yet to be approved, has the ambitions to strengthen the main corridors leading to the urban core. It aims to enhance the residential growth and improve the quality-of-life. However, it does not represent a clear urban growth vision and focal areas which acknowledge the existing urban structures of the city - its multi-polar nodes nature. Instead, it is a monofunctional development approach which anticipates further sprawl intensified by the special-use nodes far away from the existing structures.

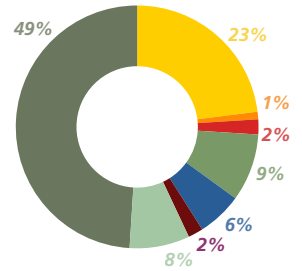
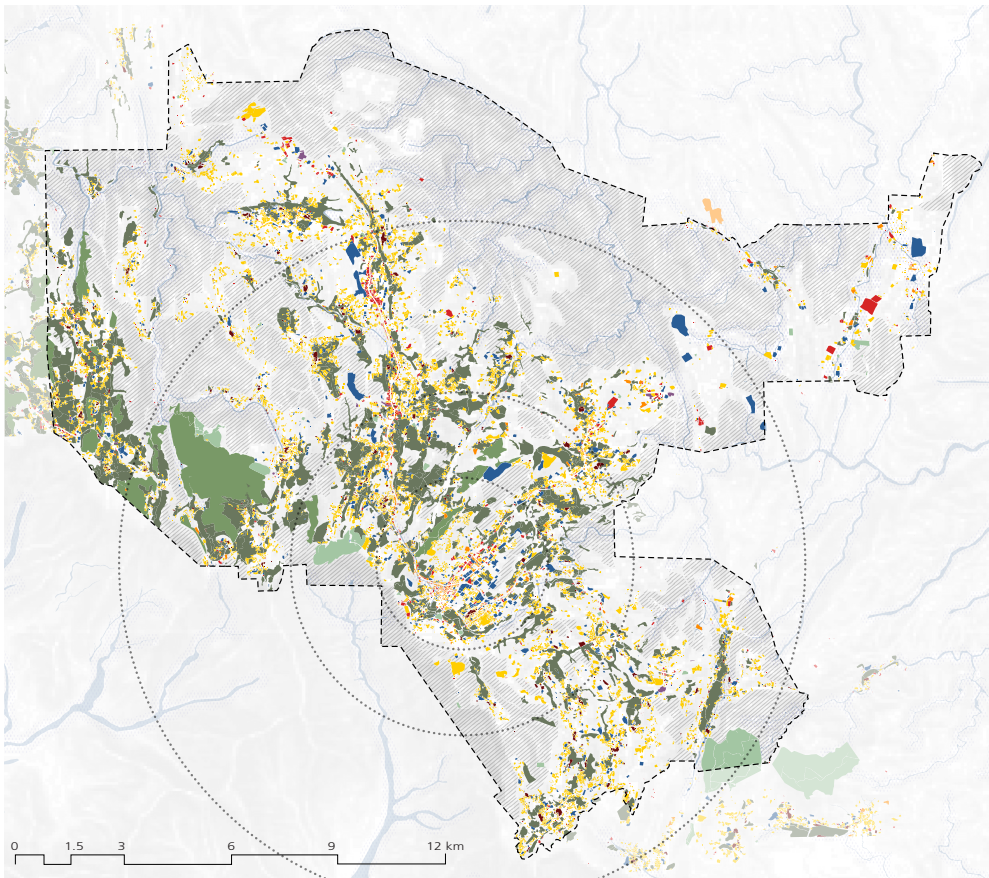
Following this approach would increase the land area to more than 725 square metres per inhabitant, an increase of 475 sqm per person from 2017, whereas UN-Habitat recommends only 66 square metres per person based on the average density of 150p/ha. Consequently, the amount of land proposed for future growth is over-dimensioned. Moreover, the question of ownership and availability of lands remains an obstacle for the implementation of the Local Plan.

Furthermore, the plan doesn't take into account environmental risks such as the loss of agricultural land and flooding of the lower areas, which require conventional stormwater management and retention areas. As the policies in place simplify the process to convert arable land into built. Al Baha dedicates the majority of its agricultural land to residential land use. According to the plan, only 513 hectares of

agricultural land would remain within the city by 2030. Most of the low and higher density residential typologies and architectural proposals envisioned to support this current urban development plan are adapting the local typologies and fit well into the existing urban context. Some of the proposed projects focus as well on improving the city scape by e.g. downgrading major roads resulting in enlarged the pedestrian areas and additional commercial activities in the ground floors along these main spines. Others propose public spaces into the city centre, but without taking into consideration to create a consistent network or the provision of open and public spaces within the other development nodes. However, there are as well projects such as the Al Baha Tower, which do not reflect the local urban context in their layout and proposed architectural design and should therefore be reconsidered.

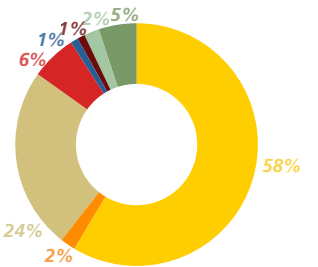
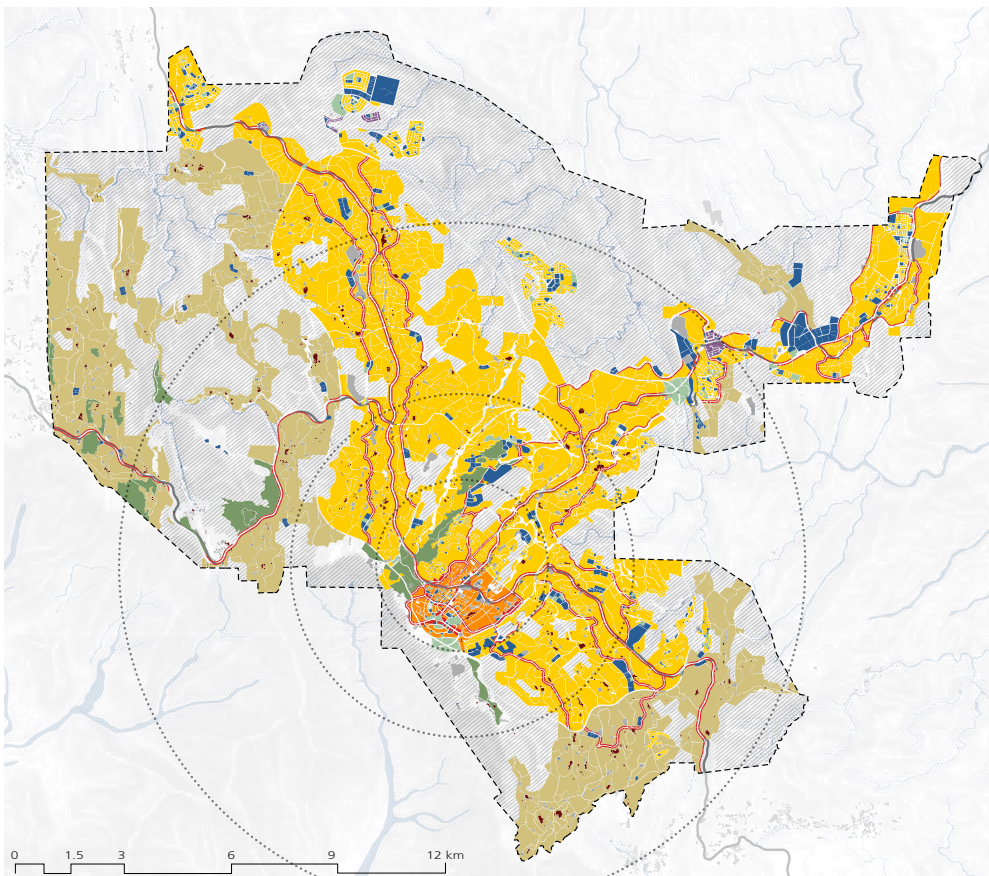


Underdeveloped commercial street in the city centre



- Residential
- Commercial
- Mixed-use
- Historic settlements
- Agriculture
- Public facilities
- Forest
- Parks and leisure

Fig. 38. Existing land use



- Residential
- Commercial
- Mixed-use
- Historic settlements
- Agriculture
- Public facilities
- Parks and leisure
- Low density residential integrated in nature

Fig. 39. The proposed Al Baha Plan by Amanah



5.2.6 *Assessment of proposed transportation systems*

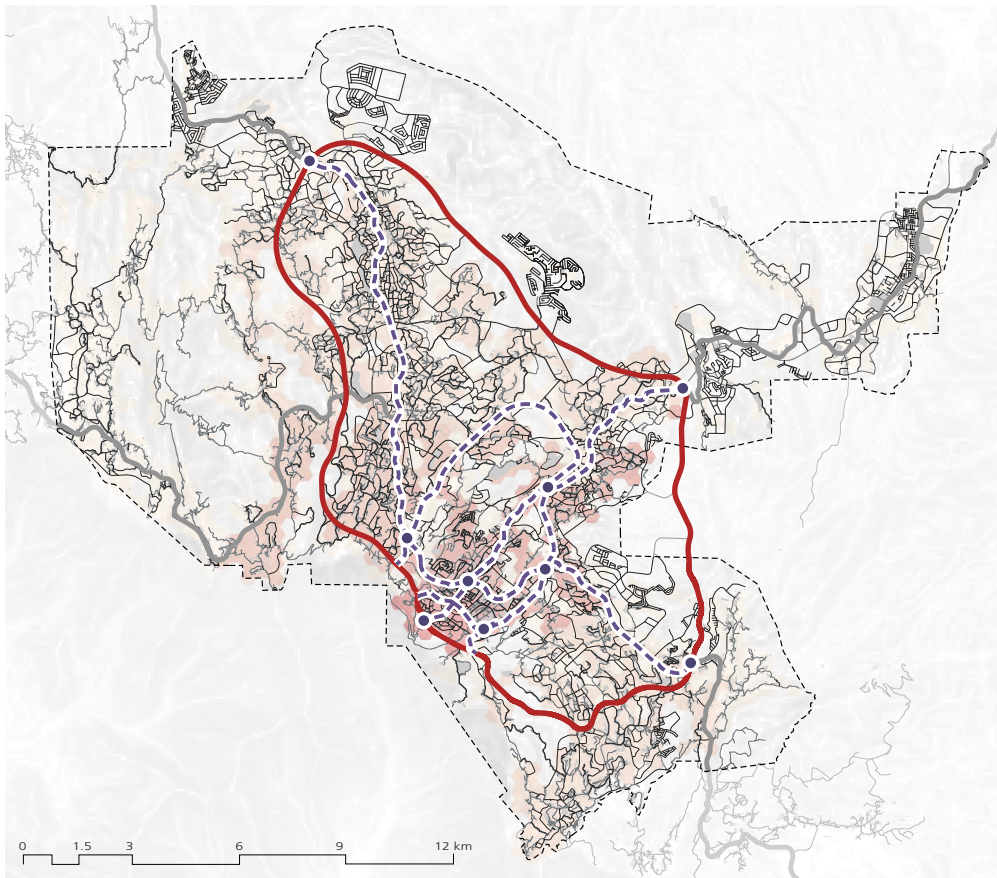
The current public transport network relies on 5 main bus lines to connect the city centre to the outskirts. They are to follow the existing and proposed main road corridors. As the network is concentrating on the city centre and the commercial corridors, only 11.9% of Al Baha residents have access to the proposed public transportation network. It is a considerably low population catchment ratio. The majority of the residents will further depend on commuting by car if no supplementing feeder system connecting the development is put into place.

Other than the bus network, there is also a Ring Road project proposed and approved, encircling the Al Baha City. However, the anticipated construction of the ring road, which is already taking place in some areas, is a huge investment which will not necessarily improve the connectivity of the city. It does not connect the points of interest. Besides, no additional subsidies are available from the government so most of the city's fiscal budget funds the construction.



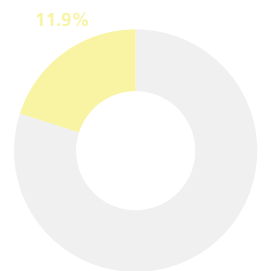
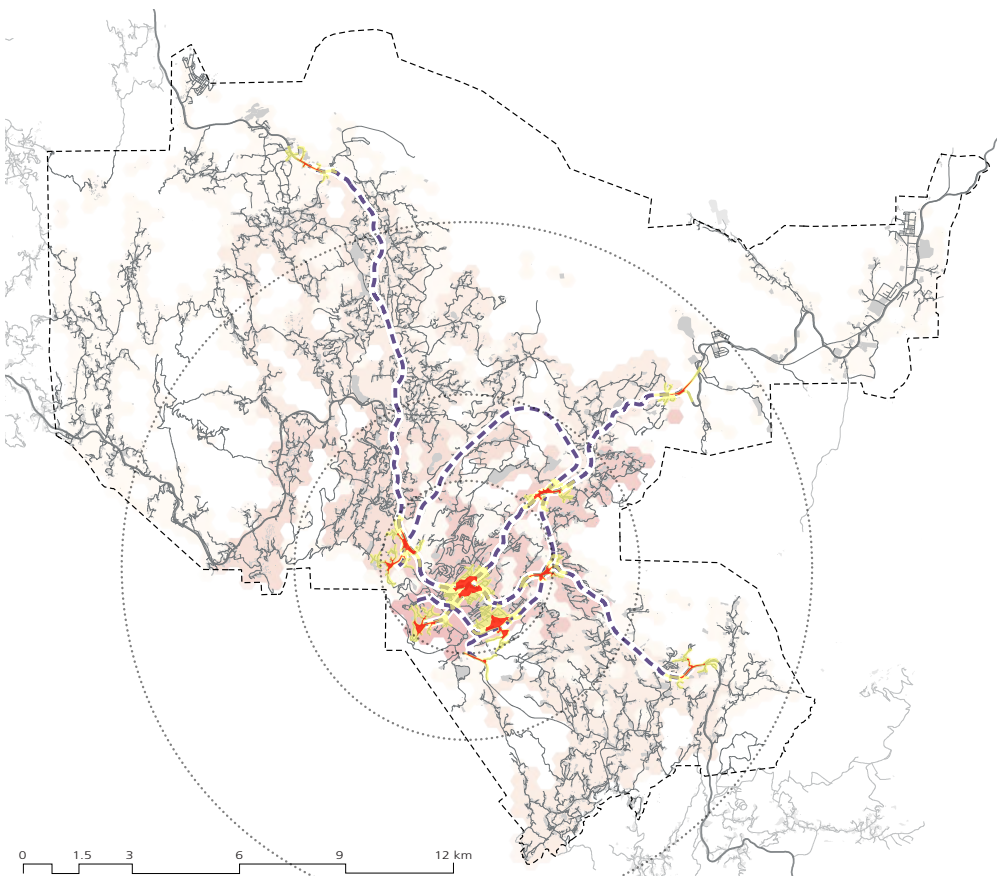
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Oversized and pedestrian unfriendly road design in the city centre



- Built-up area
- Proposed ring road
- Proposed bus lines
- Proposed stations
- Regional roads

Fig. 40. Transport infrastructure



Walking accessibility of bus stops within 10-minute walking distance

- 10-minute walking distance

Fig. 41. Walking accessibility to the public transport stops



5.3 Urban Density Scenarios

Crosscutting the diagnosis of the current urban conditions and the approved/submitted projects proposals, FSCP operated a scenario-analysis for increased urban density, according to various choices. The scenarios depict three conditions: the current situation, the situation developed in line with the approved planning instruments, and a situation where the existing density distribution is allocated following the City Profile's recommendations. This UN-Habitat scenario is based on the Five Principles for Sustainable Neighbourhood Planning, which are as follows:

The 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 the land and at least 18 kilometres of street length per square kilometres,
2. High density: At least 15,000 p/km², that is 150 p/ha or 61 p/acre,
3. Mixed land use: At least 40% of floor space should be allocated for economic use in any neighbourhood,
4. Social mix: The availability of houses in different price ranges and tenures in any given neighbourhood to accommodate different incomes; 20% to 50% of the residential floor area should be for low-cost housing, and each tenure type should be not more than 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 Al Baha is about 111,173 people on a built-up area of about 2,728 hectares, which distributes among several development nodes. This generates a population density of 40.8 p/ha, which is almost one fourth of UN-Habitat recommended density of 150 p/ha.

Scenario 1: The Al Baha Local Plan 2014

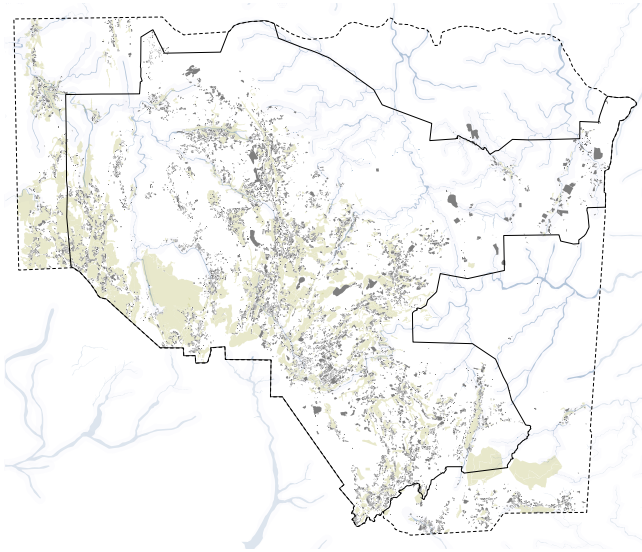
The Local Plan anticipates increasing the built-up area of the city to 10,230 hectares in total. Assuming the extension area is to be fully developed by 2030, and hosting a total population of 139,490 as projected in Vision 2030, the average density would decrease to 13.6 p/ha in the built-up area. Considering the UN-Habitat's recommended average density of 150 p/ha, the land dedicated for urban expansion can inhabit up to 1,534,500 people. In addition to significant decrease in the average density, the plan anticipates further sprawl especially along the major roads. If the envisioned plan is implemented, the provision of services and infrastructures would become increasingly expensive for the city, and the car-dependency would increase due to the difficulties to access services and daily goods.

Scenario 2: UN-Habitat Recommendations

The UN-Habitat scenario supports sustainable neighbourhood planning for Al Baha, starting with promoting an increased density, in line with the average UN-Habitat recommended density of 150 p/ha. The population of Al Baha is expected to increase only by 28,317 people until 2030, considering the current growth rate of 1.74. This number is deemed to be low compared to the Saudi Arabian context. Nevertheless, it reflects the city's challenge of high migration rates for labour and educational opportunities. Based on the recommended average density of 150p/ha, the city needs an additional area of 189 hectares to accommodate the future growth. It is only 2.5% of the 10,230 hectares proposed in the current land use plan. Considering the 1,643 hectares of vacant land that exists in the current built-up area, this scenario shows that it is not necessary to grow outside the current urban footprint and suggests strategic interventions to support policies that would facilitate the densification of existing urban areas. The aim is to create resilient and sustainable nodes of densification which form a functioning network that interrelated with each other. It would help to better distribute the annual fiscal budget to different needs of the city and its citizens.

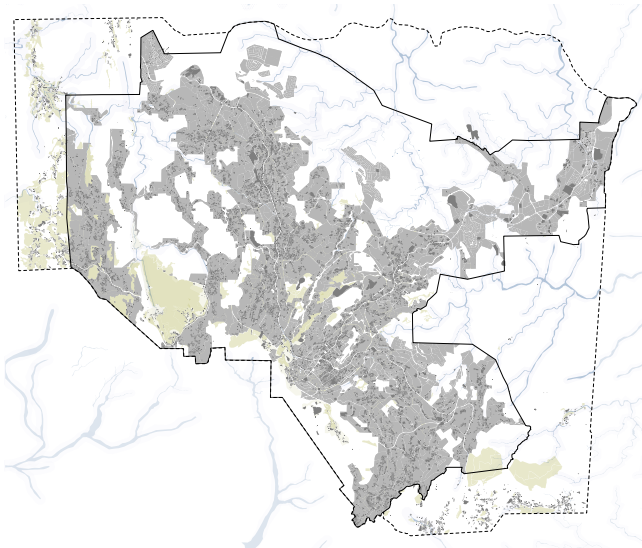


CURRENT CONDITION



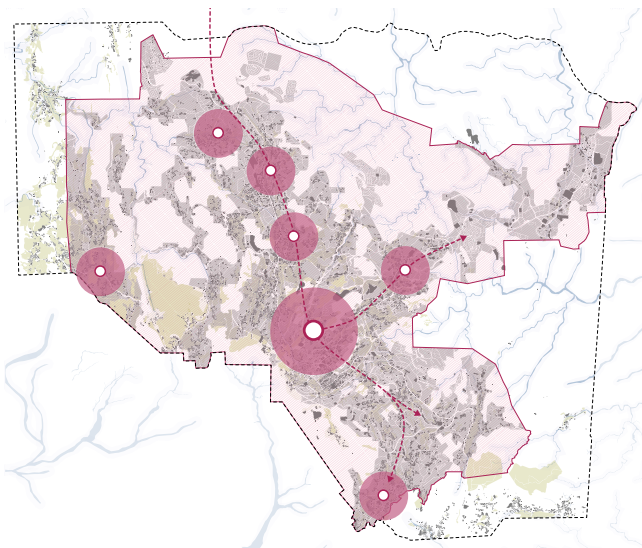
population **111,173**
 built-up area **2,728 ha**
 average density on built-up area **40.8 p/ha**

SCENARIO 1: THE AL BAHA PLAN



population **139,490**
 planned built-up area **10,230 ha**
 average density on planned built-up area **13.6 p/ha**

SCENARIO 2: UN-HABITAT RECOMMENDATIONS



population increase **139,490**
 built-up area needed according to UN-Habitat recommendations **929 ha**
 vacant land needed to accommodate population growth **189 ha***

average UN-Habitat recommended density **150 p/ha**

* 1/11th of the built-up area proposed by the existing Al Baha Plan

5

STRATEGIC DIAGNOSIS



6.1 Identifying and Defining Main Strategic Issues

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

6.1.1 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. Al Baha's particular topography and conflicts over land ownership both contribute to its condition of sprawl at distances from historical settlement centres. The city has a tendency to grow on the flatlands outside the city's established urban footprint, developing large residential communities with no reference to its unique historical structure.



[SPRAWL]

6.1.2 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 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 Al Baha, it is evident that the over-dimensioned road infrastructure and the lack of integration of the wadi systems and steep topography, are major factors contributing to the divisions in the city's fabric. This is producing fragmentation and undermining the overall cohesion of the urban structure.



[FRAGMENTATION]

6.1.3 Socio-ecological and 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 Al Baha, the green and blue (wadi) networks represent a potential source of economic growth and social development, but they currently lack integration, both ecologically and with the urban fabric.



[LACK OF RESILIENCE]

6.1.4 Endangered historical / vernacular urban patterns

Planning regulation systems in Saudi Arabian cities are currently under development within a unified framework. One of the challenges that will need to be addressed concerns the need for a comprehensive set of criteria that distinguish historical vernacular urban patterns from informal, unplanned settlements. In the absence of such a regulatory framework, historical neighbourhoods in Saudi cities are being erased to make space for new developments. Not only does this endanger heritage and disrupt the sense of identity tied to a historically stratified urban environment, but these new developments additionally disrupt the connectivity to the surrounding urban fabric, whilst alienating themselves to the neighbouring building typologies and established patterns. The introduction of appropriate heritage protection rules for articulated portions of the urban patterns, extended to streetscapes and fabric layout, will reduce risk to traditional urban layouts. These traditional layouts are characterised by narrow alleyways, that excel climatically in terms of passive energy performances and function as vibrant public spaces that generate social value. Al Baha's numerous vernacular structures in the centres of its development nodes create great potential to strengthen the city's identity and to promote economic development through tourism if the right strategy is introduced.



[LOSS OF HERITAGE]



Construction within the city



6.2 Analysing Al Baha's Four Issues in Depth

6.2.1 Al Baha's unbalanced growth and development patterns

The city's historical settlements have been expanding over decades, acknowledging natural constraints and local topography. Topographical constraints play a significant role in the growth of the city, making continuous development impossible. Consequently, the city has evolved as a system of individual development nodes, of which the city centre is the largest.

New developments of primarily monofunctional use are planned outside of the city; where larger flatlands are available and land ownership issues are resolved, at significant distances from the existing nodes. This approach fosters further sprawl and damages connectivity and general functionality within the city. The damage to connectivity will result in long commuting times and increased car dependency.

The propagation of urban sprawl will decrease accessibility to public services and employment opportunities. It will increase the costs for public infrastructure provision and negatively impact quality of life and the economic situation of Al Baha. For sustainable and resilient development, it is essential to strengthen the existing nodes and improve accessibility and connectivity within and between them.

1.



New developments appearing in the outskirts lack access to infrastructure and put economic pressure on the municipalities.

2.



Minor development node where building activities are engulfed by the countryside.

3.



Major vacant land and overdimensioned road infrastructure divide the urban fabric and hinder a compact urban development.

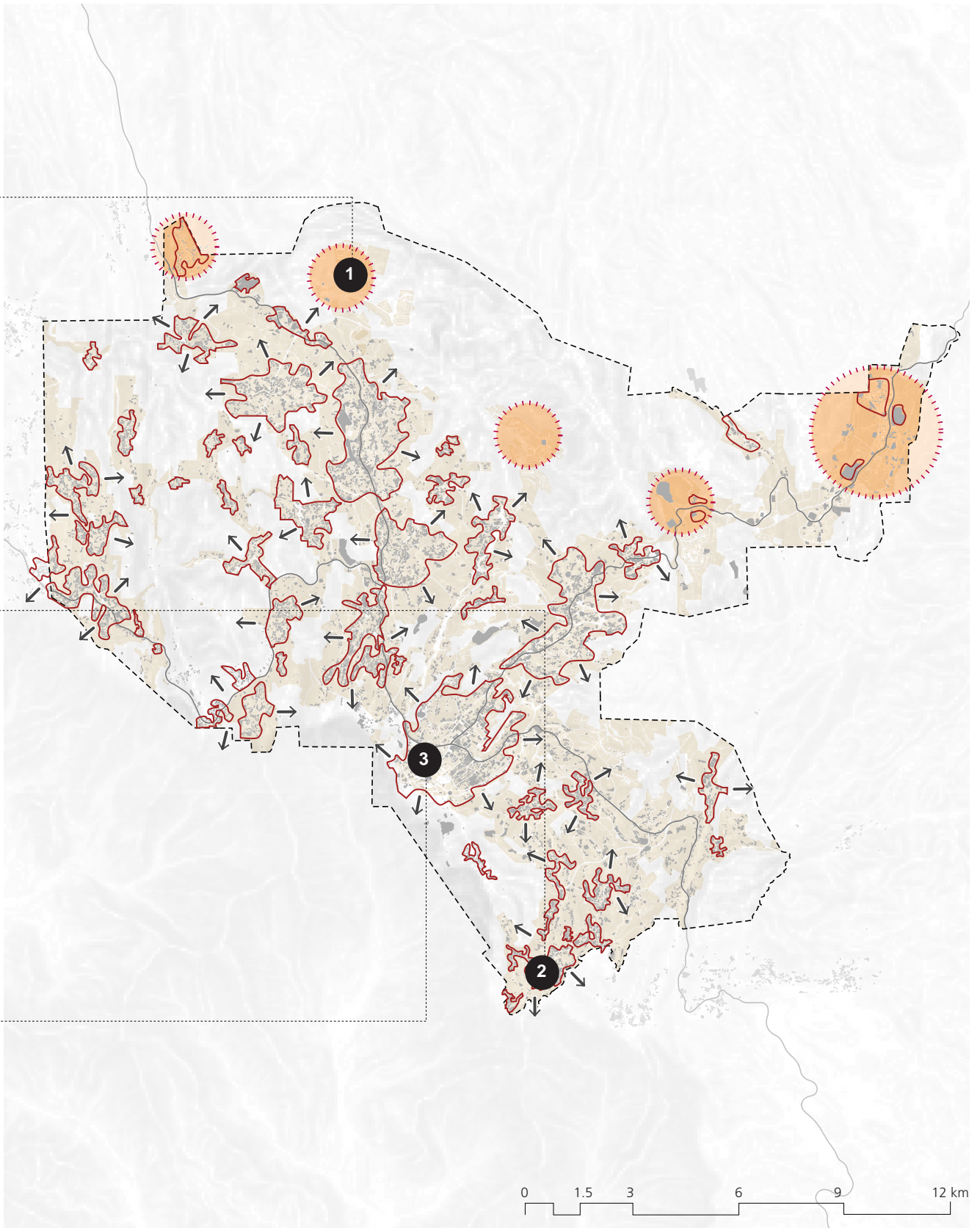


Fig. 42. Al Baha's unbalanced growth and development patterns



6.2.2 Division and lack of cohesion in Al Baha urban structure

An estimated 53.2% of land in Al Baha is considered to be undevelopable due to topographical constraints and ongoing agricultural activities. The high sloped areas and wadi system act as major divisions between the development nodes, instead of integrating elements that host pedestrian friendly recreational activities.

Not only natural restrictions fragment and disconnect city's various parts. Several human interventions such as the wide right-of-way of the regional roads contribute to these separations. These regional road infrastructure corridors are the most important divisive elements in the existing urban fabric. The distinct lack of adequate pedestrian crossings hinders the development of any vibrant urban centres. The expansive pattern of development adjacent to the roadsides further exacerbate the condition. The collective result of these conditions is fragmentation of multiple scales and forms, from regional to neighbourhood scales. Accessibility to jobs, education and services is becoming increasingly limited.

Internal fragmentation within the actual nodes can be attributed to the distribution of vacant land and over-dimensioned secondary and tertiary road corridors. The complex ownership structure and individual interests hinder the coherent development of these settlement structures.

Though Al Baha's vernacular pattern is unique and can provide opportunities for the economy based in heritage and tourism, there is currently no plan in place which foresees the integration or development of a strategy to capitalise on this. An enormous cultural and economic potential lies in the upgrade of these structures which would help to strengthen the identity of the city and improve its hospitality. There is already a citizenry awareness of the importance of rehabilitation. Some of the residents have redeveloped historic structures for housing or are using them for gardening activities. Plans to further improve and restore these buildings should be implemented to prevent their deterioration. In addition to the physical remains of history, resident knowledge of local traditions and cultural practices presents an excellent potential to provide a unique experience for visitors in Al Baha. It should be consulted and integrated in a prospective tourism strategy.

1.



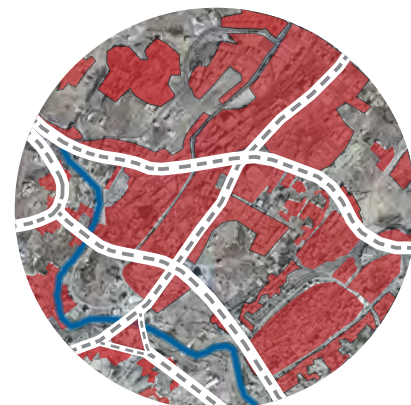
Sprawling and disconnected developments in the peripheries

2.

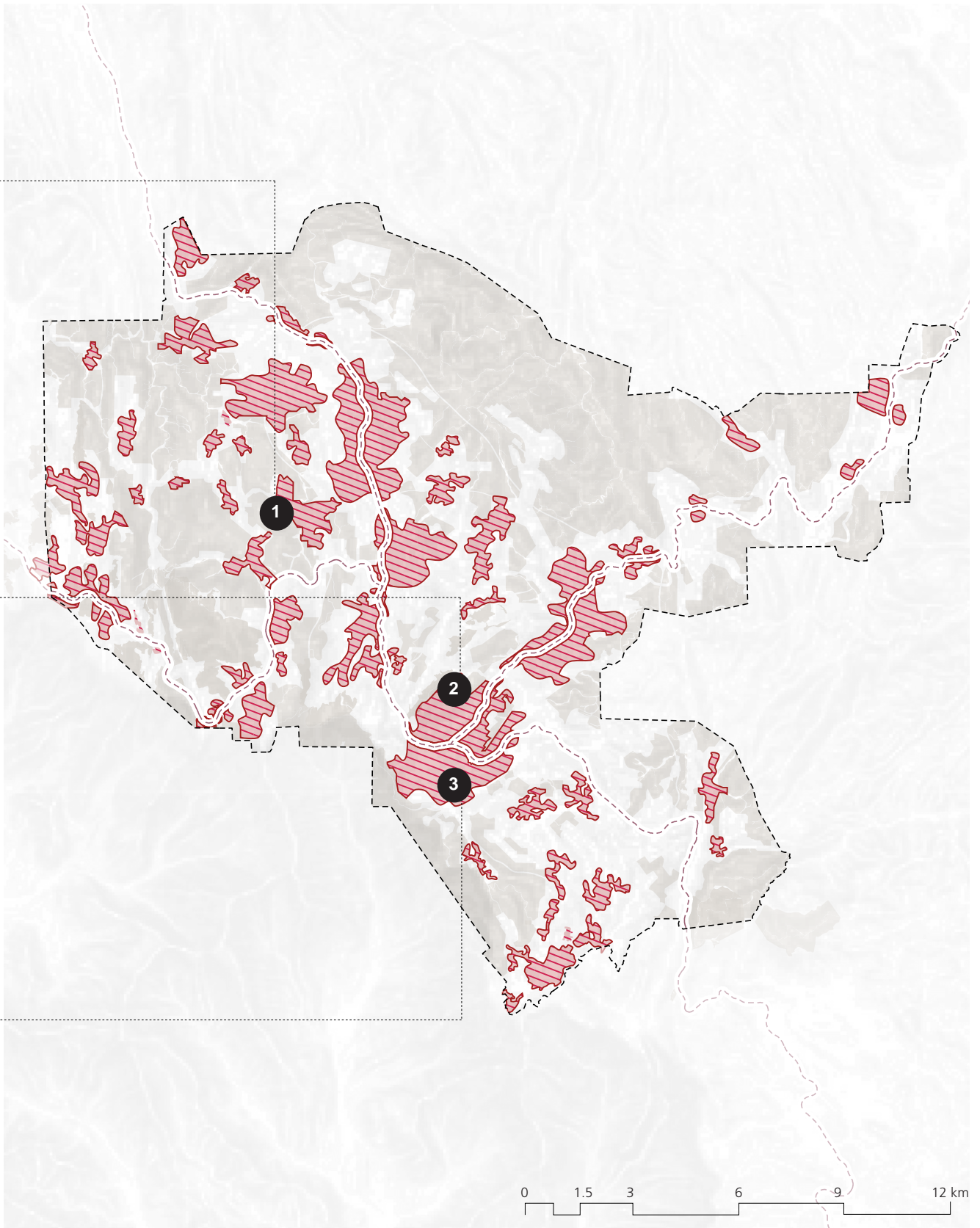


Sloped topography and embedded agricultural land contributes to a fragmented urban form

3.



Major regional roads and the water channel also cause fragmentation of the city centre



- Regional roads
- ▨ Fragmented developments
- Undevelopable land

Fig. 43. Division and lack of cohesion in Al Baha urban structure



6.2.3 Socio-ecological and economic imbalance in Al Baha

The agricultural sector is one a primary source of revenue and key to ensure food security. A robust functioning ecosystem and the scarce resources of the city need to be protected. The Abandonment of agricultural land is not an isolated problem. The increasing water scarcity threatens the irrigation of farms. The higher rainfall the city experiences in the months from March to May, offers potential contribution to a future irrigation system to combat water shortages. This should ease pressure on water requirements, at least on a very local level.

If the existing Local Plan is implemented as currently envisioned, Al Baha will lose 4,225 hectares of its agricultural land by the 2030, an amount equivalent to 1.5 times the current built-up area of the city. Continued loss of these fertile lands must be prevented by regulation in development plans. The loss of these lands would constitute an injury to the city that would threaten economic performance and quality-of-life. Agricultural productivity should, instead, be improved and incentives provided to foster investments in the farming and food processing industries. As contribution toward increasing the Kingdom self-reliance, Al Baha was asked by the central government to increase agricultural activities as part of the nation's food security strategy.

The loss of agricultural land additionally leaves the city vulnerable to natural hazards such as flash floods. These occur from March to August, though most commonly in the peak season of March to May. These seasonal conditions put 18.5% of roads and 9% of built-up area at risk. The issue must be acknowledged, and mitigation measures should be integrated in future development plans that include installation of stormwater management and retention areas and moves to control activities within hazardous zones. Fog is also considered a natural hazard in al Baha and causes a high number of accidents in the region. However, fog can also be considered as a positive environmental attribute as it can be utilised to produce water for irrigation.

Citywide solid waste management and environmental consciousness are additional issues the city should address. The provision of educational programmes within schools and mosques/public facilities would help to improve the awareness within the community.

1.



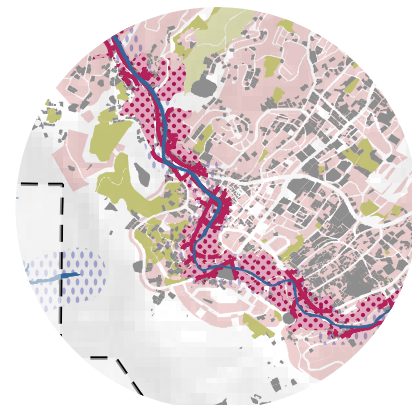
Abandoned agricultural land has the potential to be reactivated, providing local jobs in the city and generate economic revenues

2.



Traditional, small scale terraced farms are cultivating do not compromises the underground aquifers and ensure the food security of the local communities

3.



Converting natural retention areas into building land will cause threat to the future built-up areas

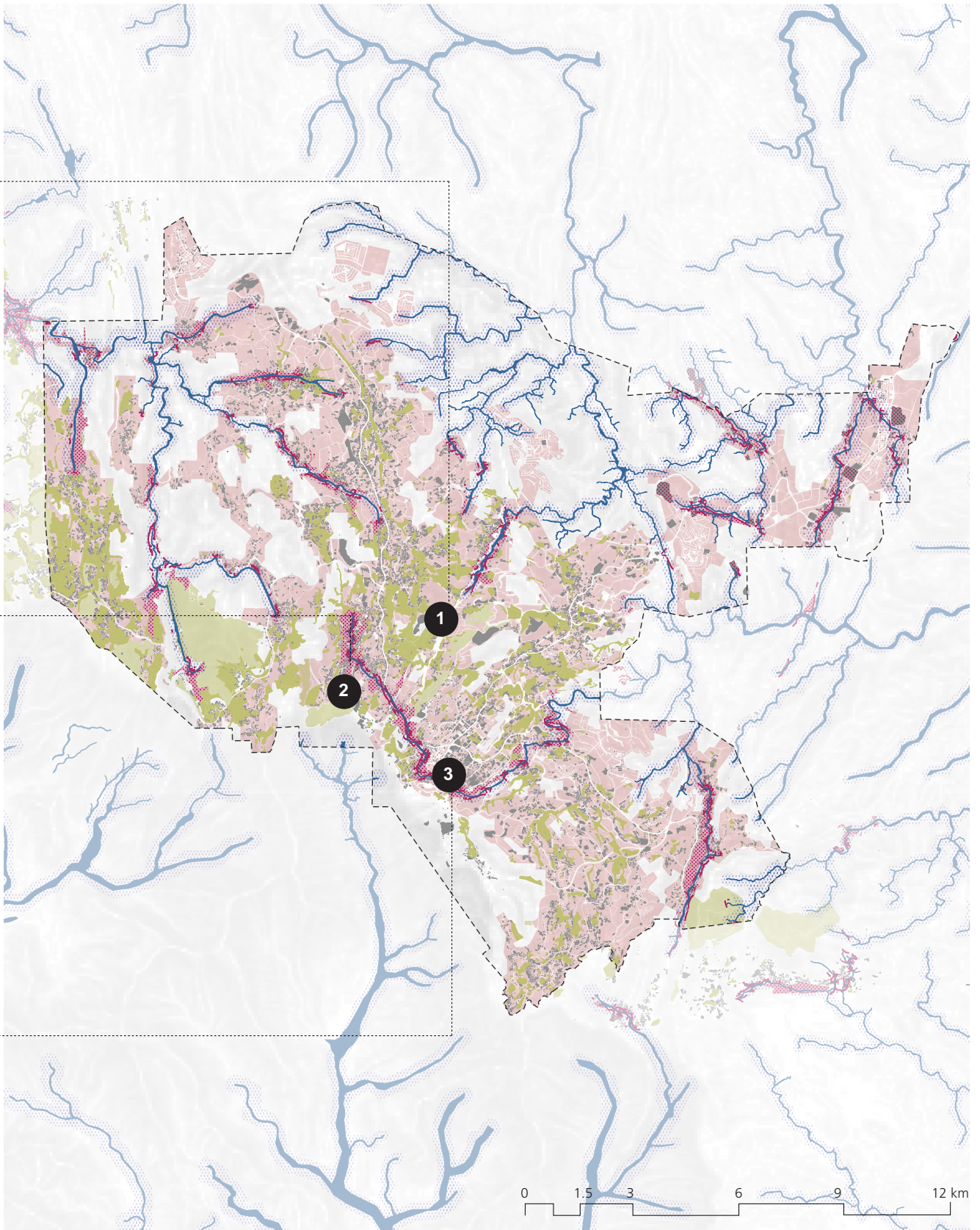


Fig. 44. Socio-ecological and economic imbalance in Al Baha



6.2.4 Endangered historic / vernacular urban pattern in Al Baha

Despite the city's unique historical richness, authorities have not exploited the potential contribution of vernacular structures and patterns to the development of Al Baha. Though these settlements are recognised in the development plan, the city lacks an integrated tourism and heritage preservation strategy. There is enormous cultural and economic potential in the upgrade of these structures that can help to strengthen the identity of the city and generate revenue through hospitality. There is already a citizenry awareness of the importance of rehabilitation. Some residents have redeveloped historic structures for housing or for gardening activities. Plans to further improve and restore these buildings should be implemented to prevent their deterioration.

In addition to the physical remains of history, resident knowledge of local traditions and cultural practices presents an excellent potential to provide a unique experience for visitors in Al Baha. It should be consulted and integrated in a prospective tourism strategy.

In addition to its vernacular urban structures, Al Baha's historical farmlands along the wadis form an equally important aspect of the city's identity. The farmlands, historical dwellings and their positions in the landscape tell a story of Al Baha's history, economy and way of life. Its traditional rural architecture represents a synergistic interaction between local life and the environment that shapes it. Some of these vernacular dwellings are threatened with extinction by the absence of strong preservation policies and actions. The historical pattern of farmlands should be protected, not only for its contribution to the city's identity but also for its connection with the blue-green network.

In line with the tourism strategy, historical settlement centres in Al Baha are categorised as mixed-use due to their integration of commercial and public facilities. Mixed-uses in the centre of development nodes serve the basic needs of citizens in a way that monofunctional developments cannot. Al Baha's unique urban pattern formed of multiple historic nodes can facilitate integration of service facilities and mixed land use in the city to create dense and vibrant street life throughout.

1.



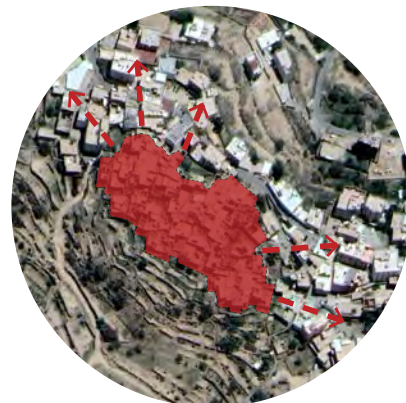
New settlements merge with the historic structures

2.

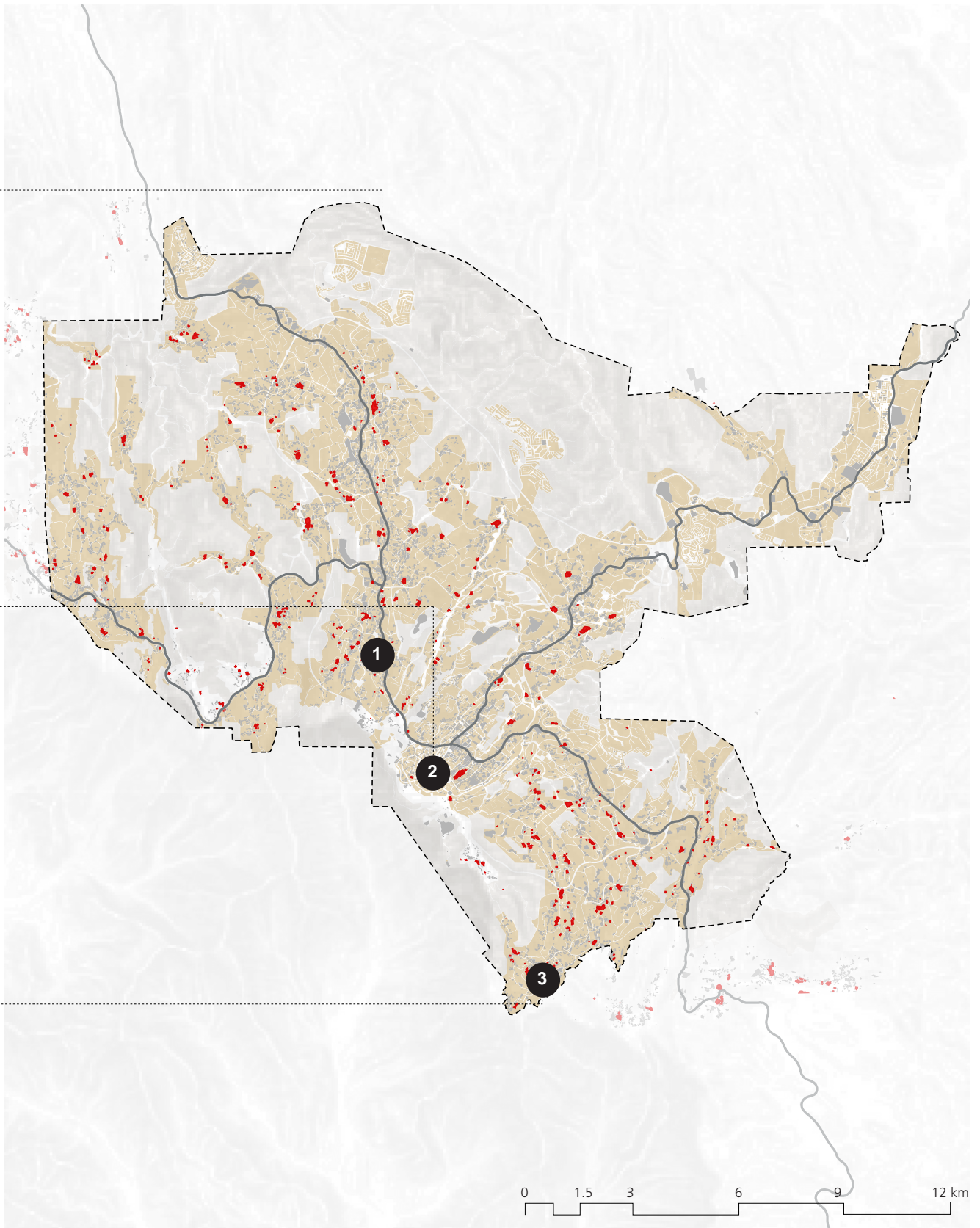


Deterioration of historic settlements

3.



Building activities are taking place around the vernacular structure.



- Regional roads
- Historic settlements
- Built-up area
- Proposed urban expansion
- Undevelopable land

Fig. 45. Endangered historic / vernacular urban pattern in Al Baha

6

THE FUTURE CITY



7.1 Strategic Responses

After performing a strategic diagnosis, and identifying four main issues affecting the urban development of Al Baha, 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 Al Baha, at various scales. This is followed by a roadmap to implementation, in the form of an articulated Action Plan.

7.1.1 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.



7.1.2 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.



7.1.3 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,²⁹ 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 Al Baha, 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.



7.1.4 The Historic City

A Historic City is defined as an active human settlement, strongly conditioned by a physical structure that originates from its past, and recognisable as representing the evolution of its people.³⁰ Following this definition, it is fundamental for historic areas to be inhabited and form a live cultural nucleus, with a strong urban identity. Over the last few decades, inner-cities and their historic districts all over the world have been deteriorating. Saudi cities are facing high-pressure from development, and often, in historic cities, architectural heritage has been allowed to deteriorate or eradicated to make space for new development, in place of conservation in historic areas. Responding to this scenario requires firstly the establishment of categorisation of these areas, followed by precise regulatory systems for their preservation, restoration, rehabilitation, and revitalisation, aiming not only at protecting the heritage buildings but the entire historic urban fabric, inclusive of all its elements, from streetscapes to residents.





Agricultural land and the surrounding landscape



7.2 Appropriate Models for Al Baha's Urban Development

7.2.1 *The Compact City: Consolidating development and densifying centres in Al Baha*

The first strategy for Al Baha focuses on strengthening and consolidating the individual nodes by developing the vacant lands within, especially in the primary nodes and the city centre. This strategy will only improve quality of life within the nodes but will also limit the loss of agricultural land. Though nodal consolidation is necessary, the importance of the city's historical character should not be neglected. Therefore, proposed infill building typologies and architectural designs should be integrative and adaptive to the local context.

There are several demonstrative benefits of the Compact City, which include:

- Less car dependency and lower emissions,
- Reduced energy consumption;
- Better public transport services;
- Increased overall accessibility;
- The re-use of infrastructure and previously developed land;
- A regeneration of existing urban areas and urban vitality;
- A higher quality of life, the preservation of green space, and;
- Enhanced business and trading activities.

In contrast to other cities, in Al Baha privacy is not considered a development obstacle and citizens welcome vertical expansion. This would significantly enhance the process of densification. Denser mixed-use areas within the nodes would support the activation of the centres, as only an adequate density will lend viability to the internal services and achieve self-sustainability for the nodes. Currently, access to services and higher education requires long commuting times. Services are clustered along the main road and special-uses are located far away from the city centre and development nodes.

Though land ownership appears a significant obstacle, measures to enforce the development of vacant lands within the existing built-up areas (e.g. white land taxes) need to be further elaborated and adjusted to the local needs.



Densification of existing development nodes and prevention sprawl



Compact forms of urban development will ensure walk access and reduce dependence on cars.



Disconnected and inaccessible major public infrastructure such as the main hospital disrupt the functionality of the city

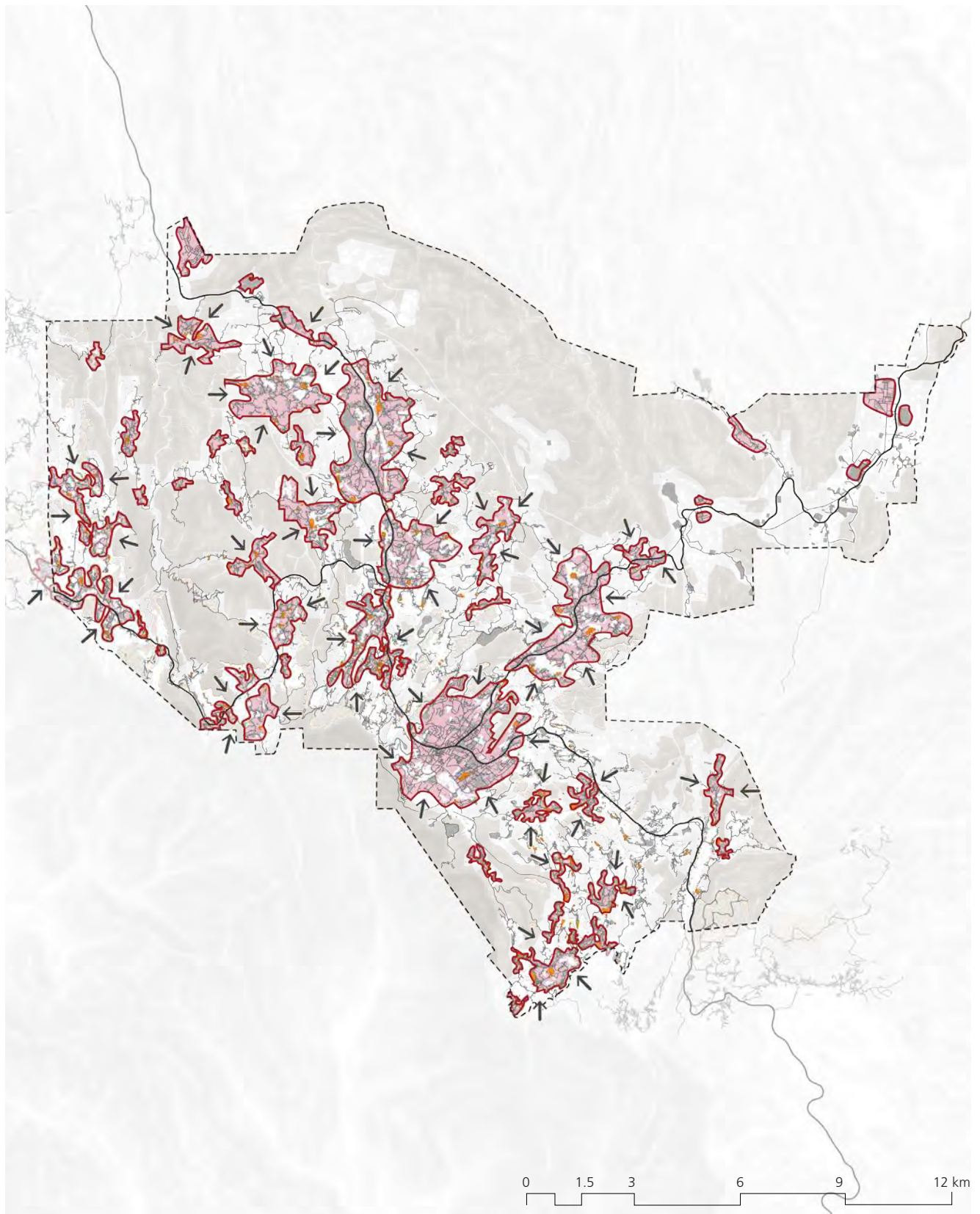


Fig. 46. *The Compact City: Consolidating development and densifying centres in Al Baha*



7.2.2 The Connected City: Linking Al Baha through public transport

The second strategy addresses the need to reintegrate the divided structure of Al Baha and reduce spatial fragmentation through infill development. This also requires provision of a more extensive public transportation network to connect the individual development nodes. A Connected City is built upon the principles that a robust transportation system and a pedestrian-friendly built environment, results in enhanced productivity, social, economic, and territorial cohesion, as well as safety and environmental sustainability.

As the city is formed of a nodal network, Al Baha requires a polycentric approach to its development that reflects its rural structure. The hierarchy of the different centres is already defined by the size and importance of the identified nodes. The largest node - the city centre - acts as a CBD in which businesses and administrative services are located. If Al Baha is to function as a cohesive network, connectivity between the individual nodes must be strengthened. Improved connectivity provides access to services and daily goods and fosters exchange between communities. The provision of services and a network of open spaces connecting the points of interest would improve the quality of life of the residents.

The over-dimensioned regional roads crossing nodes and dividing the urban fabric into isolated zones, should be redesigned to accommodate pedestrians. These mega-structures can be downgraded to inner city boulevards and transformed to support current and future increases in local vehicular traffic flow. They can also be integrated into the proposed public transportation system.

Division and spatial fragmentation are furthered by Al Baha's challenging topography of wadis, hills and mountains. It should be noted that the issue lies not with the actual wadis and mountains but with the lack of connectivity across these natural land features and they can be reimagined as a unifying element. The wadi system threading the city is by default a connector, as it stitches the urban fabric. These features can be enhanced by increasing the connectivity across the wadi, ensuring that the wadi does not form a barrier in the urban fabric. Connecting the wadi should involve extension to adjacent neighbourhoods, providing furthered access to public open green spaces.

Linking the fragmented vernacular pattern within the historical development nodes is another important aspect of this strategy. Preserving local identity, its rich building heritage and the vernacular settlements should be an important area of focus in the future development of the city. Creating a connected and linked comprehensive network of all vernacular urban patterns would strengthen overall cohesion of the city's structure.



Cultural and heritage sites and activities must be linked via public transport



Overdimensioned infrastructure such as the regional roads divide the urban form and hinder coherent development



Lack of secondary roads and public transportation causes congestion especially during rush hour

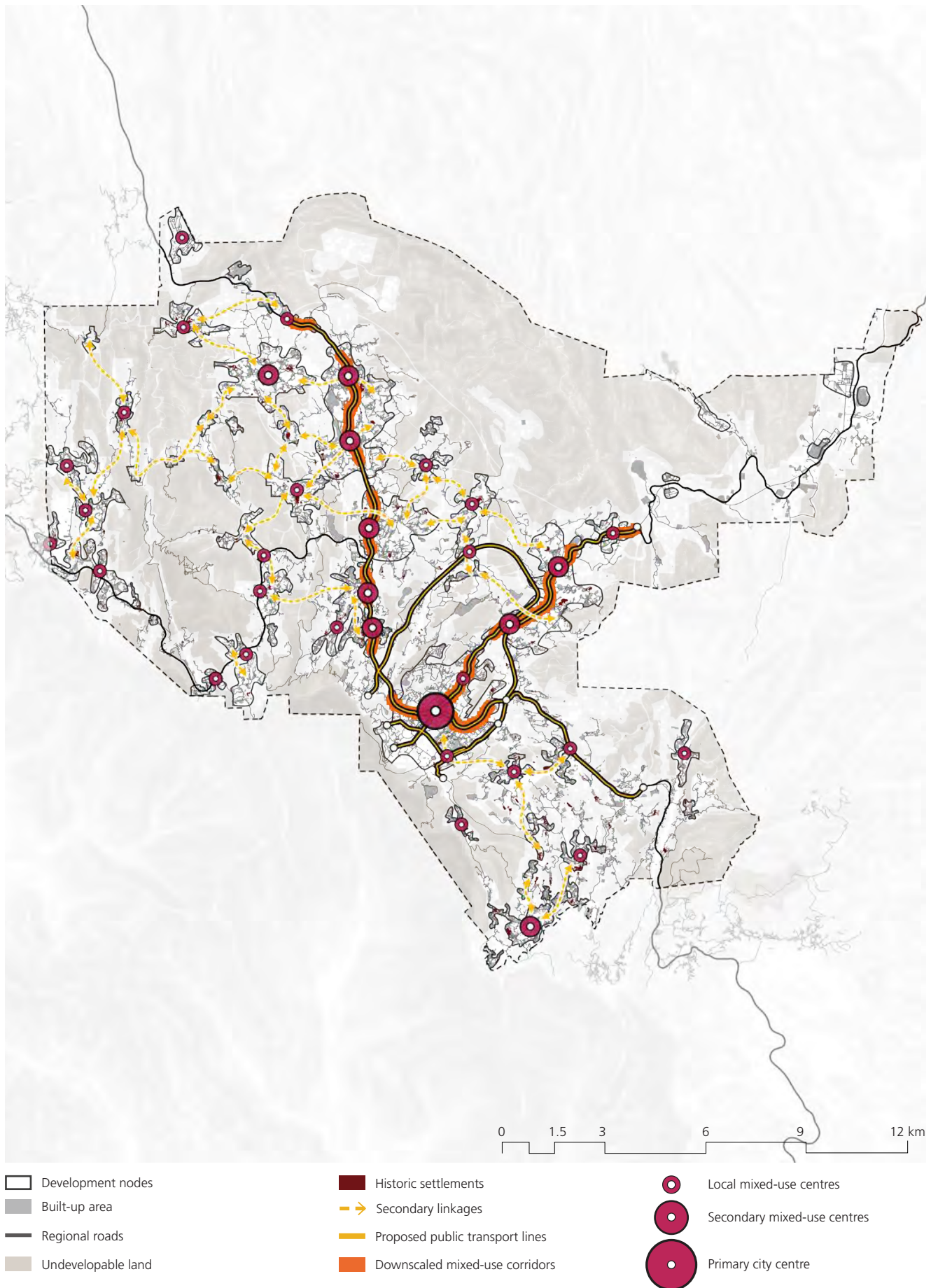


Fig. 47. The Connected City: Linking Al Baha through public transport



7.2.3 The Resilient City: Rebalancing Al Baha's socio-ecological and economic systems

The third strategy focuses on the preservation, integration and management of the existing agricultural land and other natural features, (the wadis) throughout the prospective urban growth of the city. Protecting the agricultural areas will be the key to ensure food security and will make a significant contribution to the city's economic development, in both agriculture and tourism. Awareness of this importance should be raised within authorities and the general public. The planning entities should take the lead by integrating these lands, active or abandoned, into their future development plans as protected. The agricultural corridors within the city's urban fabric should to be preserved and restored to create harmony that enhances the balance between the natural and built environment.

The country is currently highly dependent on food imports. Raising awareness on national, regional and city scales is of vital importance and improvement of the agricultural sector and livestock production is fundamental for sustainable development. As Al Baha is already considered to be integrated into national food protection programmes, it should address and exploit the associated financing opportunities. The issue of food security has become even more pressing as Al Baha and many other Saudi Arabian cities already face water scarcity. Preparedness will be key to meet its future irrigation challenges. Therefore, the city should explore future potential for irrigation systems and adapt them for the regional context.

A well-maintained wadi system could provide opportunities for the establishment of linear parks and public spaces across the city. Utilising and integrating the wadi network within the city and immediately beyond, can serve as a catalyst to ignite rebalance and resiliency socially, economically, and environmentally. Future developments should be designed in harmony with the natural blue-green features to maintain syncopy between infrastructure networks and future visions. Additional integration of the agricultural lands to create a citywide public open space network will open another potential source of economic growth and social development.

Furthermore, integrating the historic settlements as leisure areas or points of interest within the open space network should be anticipated. These historic structures provide a very distinctive micro-climate which is adaptive to the local context. The use of local materials for the design of the public realm sets a positive precedent to complement and strengthen the unique identity of the city, especially the design of open spaces. Solid waste management and awareness of environmentally conscious behaviour must also be addressed for sustainable future development and to maintain the visual charm of the city.



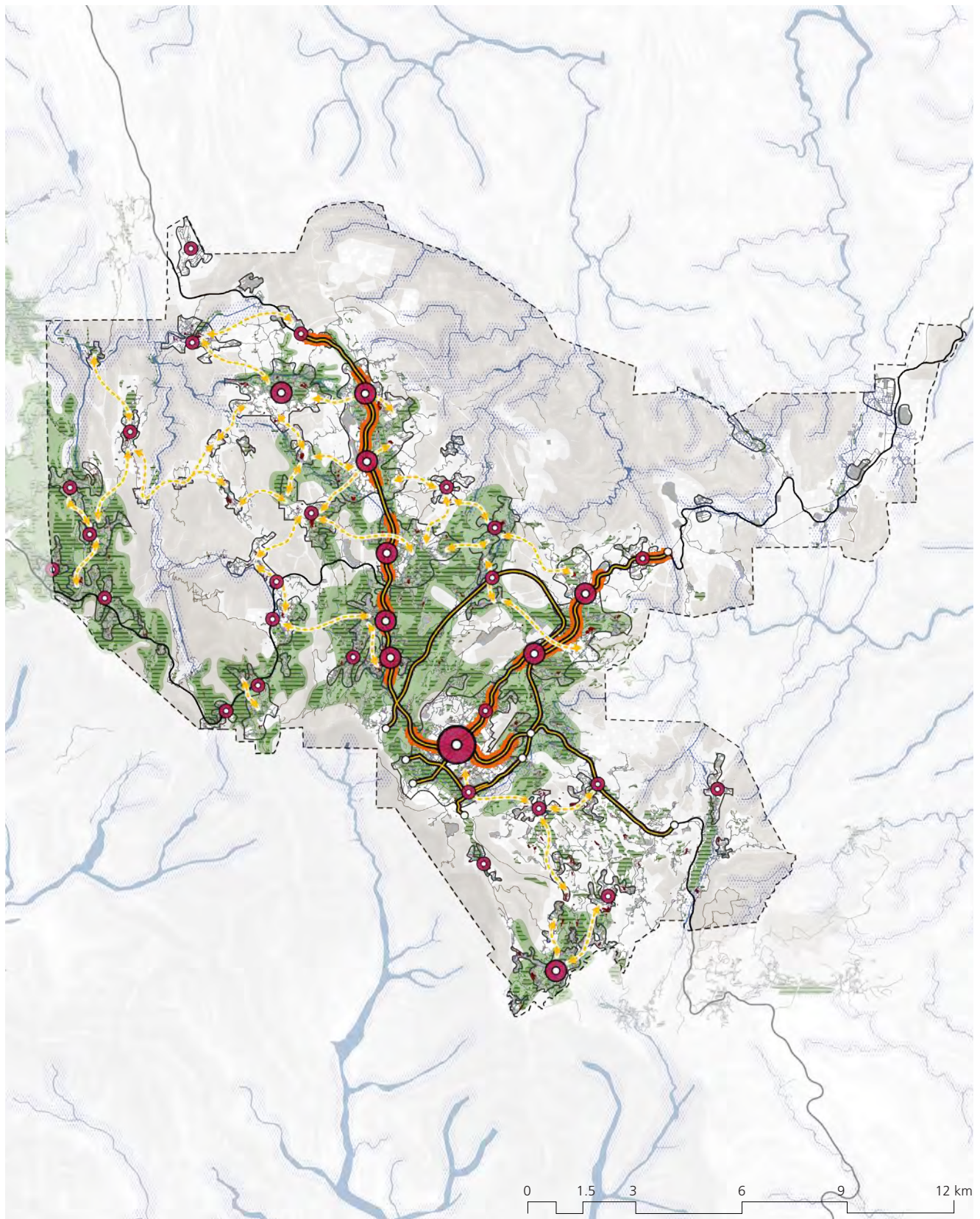
Foster the local food production by preserving the agricultural land and provide opportunities for local markets



Create a vibrant urban life by providing a decent open spaces network and link temporary uses of interest



Create well designed spaces to promote the walkability within the city



- | | | | |
|---------------------------------|---|--------------------|-----------------------------|
| Historic settlements | Forests | Wadis | Local mixed-use centres |
| Secondary linkages | Agricultural land | Wadis buffer zone | Secondary mixed-use centres |
| Proposed public transport lines | Agricultural clusters - revitalise abandoned land | Undevelopable land | Primary city centre |
| Downscaled mixed-use corridors | Built-up area | Development nodes | |

Fig. 48. The Resilient City: Rebalancing Al Baha's socio-ecological and economic systems



7.2.4 The Historic City: Preserving the historical identity of Al Baha

Al Baha's rich heritage expressed in its vernacular structures should be a focal area for future development in the city, as a measure to preserve the local identity. Strengthening this sector to capitalise on the unique features of Al Baha's heritage will not only improve the cityscape but will attract business and visitors and increase revenues for the city. Activating the vernacular structures by renovating and repurposing for commercial and cultural ventures can generate loci of identity where social interaction can take place.

Strengthening the city's historical identity will also attract cultural tourism. The protection of local heritage also requires to conservation of human knowledge about traditions, cultures and crafts. Therefore, the citizens of the city should be consulted on a future strategy to contribute their expertise and experience. The tourism and hospitality sectors could generate new labour opportunities if training and higher education programmes are introduced. This should be extended to conservation.

Integrating the historic settlements as leisure areas or points of interest within the open space network should be anticipated. These historic structures create a distinctive micro-climate which is adaptive to the local context. The use of local materials for the design of the public realm sets a positive precedent to complement and strengthen the unique identity of the city, especially in the design of open spaces.



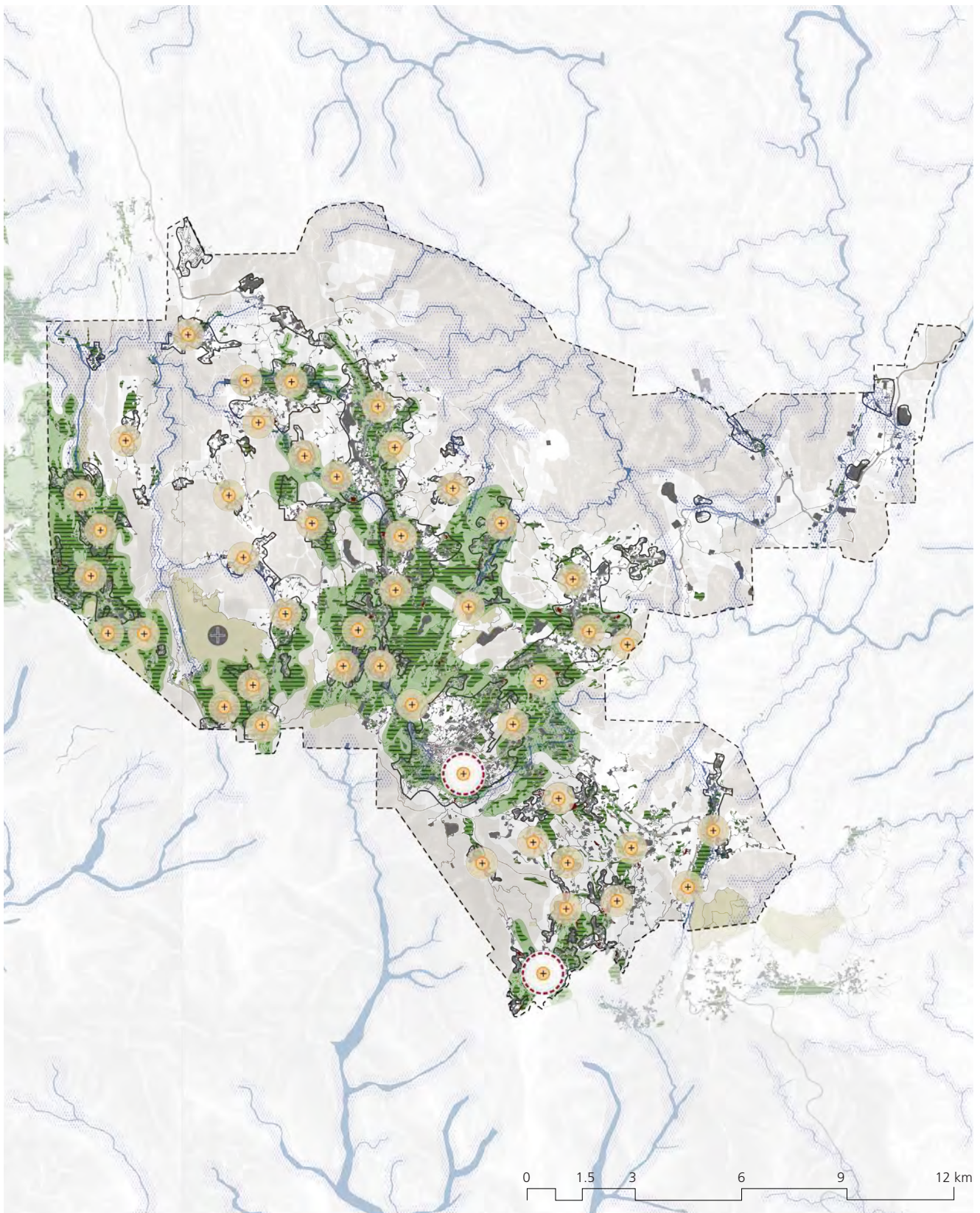
Rehabilitate vernacular structures by integrating small cafe's, boutique hotels or other uses which attract tourists as well as residents.



Integrate existing main tourist attractions such as the Thee Ain Village with the historic structures which are distributed over the city.



Develop a unified building code for the rehabilitation of the vernacular structures to create an appealing environment.












-  Historic settlements
-  Potential pioneering areas for redevelopment
-  Forests
-  Agricultural land
-  Agricultural clusters - revitalise abandoned land
-  Wadis
-  Wadis buffer zone
-  Undevelopable land
-  Built-up area

Fig. 49. The Historic City: Preserving the historical identity of Al Baha

7.3 An Action Plan for Al Baha

Achieving short and long-term sustainability requires acknowledgement of the strategic goals in defined systematic actions. Those actions are designed to trigger spatial, economic and social transformation.

The four main actions envisaged for the city of Al Baha are:

- **ACTION 1: Increase connectivity between individual development nodes**
- **ACTION 2: Consolidate individual development nodes and create vibrant urban centres**
- **ACTION 3: Preserve natural assets and establish a network of green public spaces**
- **ACTION 4: Rehabilitate and connect vernacular urban structures**

Actions 1 and 2 address the need for a system of distributed interventions that address the issue of sprawl and fragmentation in the city. The implementation of TOD to provide key intermodal hubs and densification along a well-considered public transportation network acts at the city scale. Action 3 is essential to limit the loss of agricultural lands due to urban encroachment. It will complement the structural transformation of the city with a robustly rebuilt green network with re-established links to both the urban fabric and the blue network. Action 4 focuses on the capitalisation and

conservation of existing historical assets by revitalisation. It defines the identity and position of the city as a destination for cultural heritage.

Due to the complexity of Al Baha's existing city structure, the actions for Al Baha must be calibrated to address multiple scales. Consolidation and improved connectivity between the individual developments with an expanded public realm will contribute to improved quality of life. These structural transformations for the core focus of the action framework and connect to the important enhancement of the agricultural sector to boost ecological conservation and economic development of the city.



Discussing spatial alternatives for the future urban growth of Al Baha

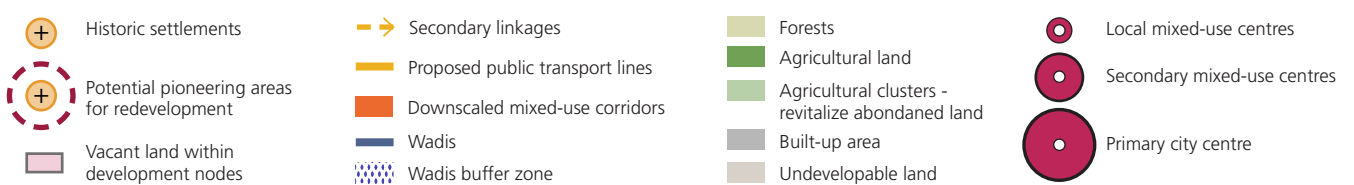
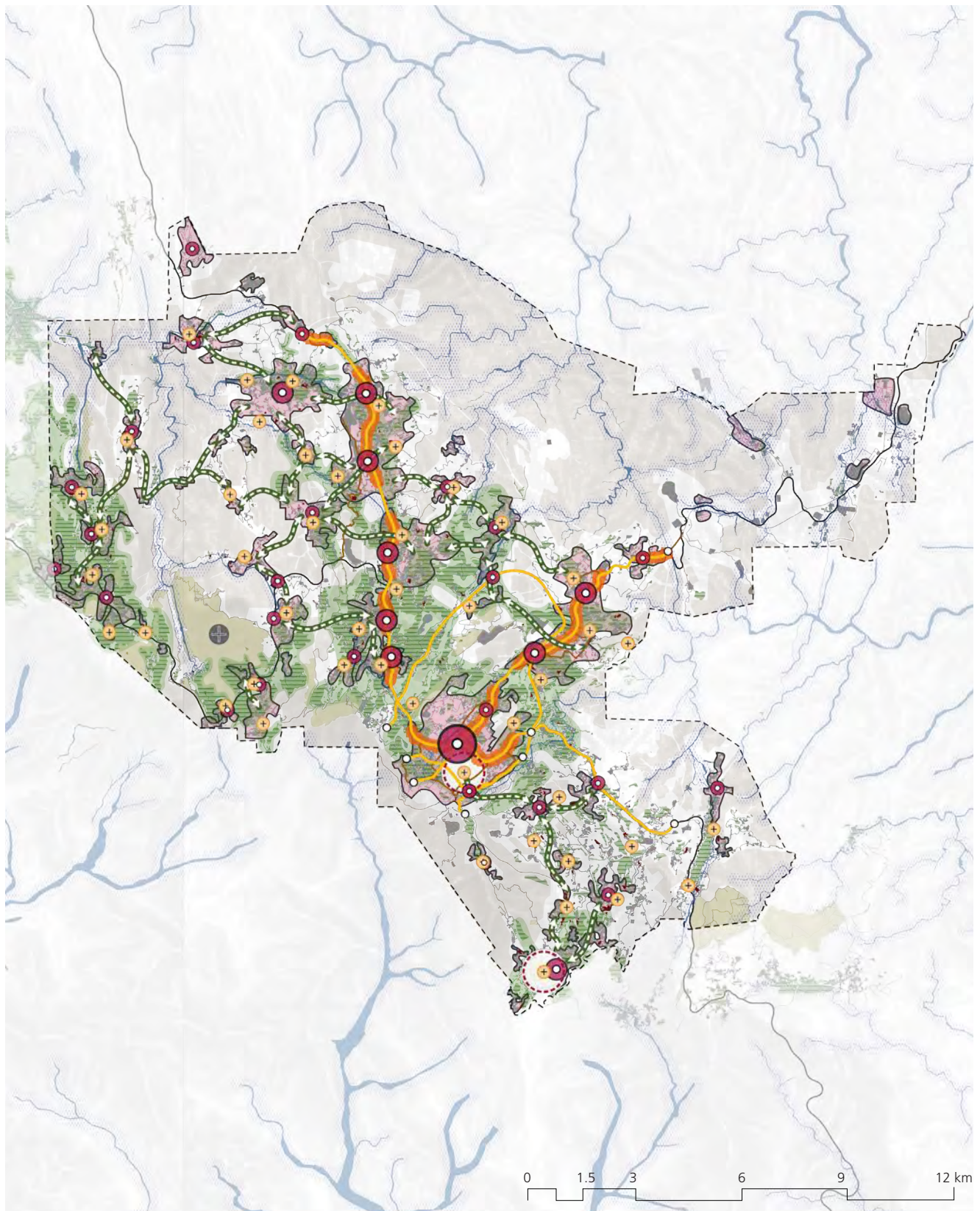


Fig. 50. Strategic recommendations for Al Baha

7.4 Three Systemic Actions for Structural Change

7.4.1 Action 1: Increase connectivity between individual development nodes

Restructuring the city from its mobility patterns represents the first step toward compaction and integration. The city's structure as a nodal network places importance on inter-nodal connectivity to facilitate the exchange of goods and services and to foster relationships that improve citizenry identity. An efficient public transport network is necessary to promote higher urban density to consolidate the current nodes along the transport lines. This action also promotes a reconsidered street hierarchy with regional roads, arterial routes and local streets based on sequential traffic speeds. Action 1 can be summarised in the following steps:

1.1 Downscale the regional roads and provide access points

The two regional roads of King Abdulaziz Road and King Fahd Road are currently creating major physical divisions in the urban fabric as they function as a throughway, with traffic moving at high speeds. The sections of both roads that fall within the urban footprint should be rescaled and redimensioned to reduce high speed traffic. In addition, more access points need to be provided along these roads for traffic intake from the individual development nodes. A feeder system of roads with a well-establish hierarchy must be provided to improve the accessibility of dispersed nodes.

1.2 Promote the connectivity between individual development nodes

It is of great importance for the city to improve functionality of road network through provision of sufficient secondary linkages. A secondary system should strengthen the connectivity of individual centres with the primary road network wherever feasible. This interconnected network would extend access to the individual nodes and promote functional connectivity that brings the complimentary parts of the city together as a synergistic whole.

1.3 Establish a public transport network to improve the connectivity

Following the improved interconnectivity of the road network in Al Baha, investment in a more extensive public transportation network can be considered. After individual nodes have become stronger, a central public transportation composed of bus routes should be established, primarily along the major regional roads. These primary bus routes should be supported by secondary feeder lines that use the secondary linkages established in action 1.2. Increased connectivity between nodes with strong links to the city centre would give definition to the city structure.

1.



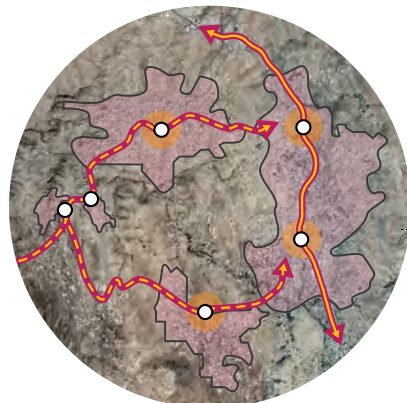
Downscaling the major regional roads within the individual development nodes, especially within the city centre, will create a more pedestrian friendly public realm and vibrant urban centres.

2.

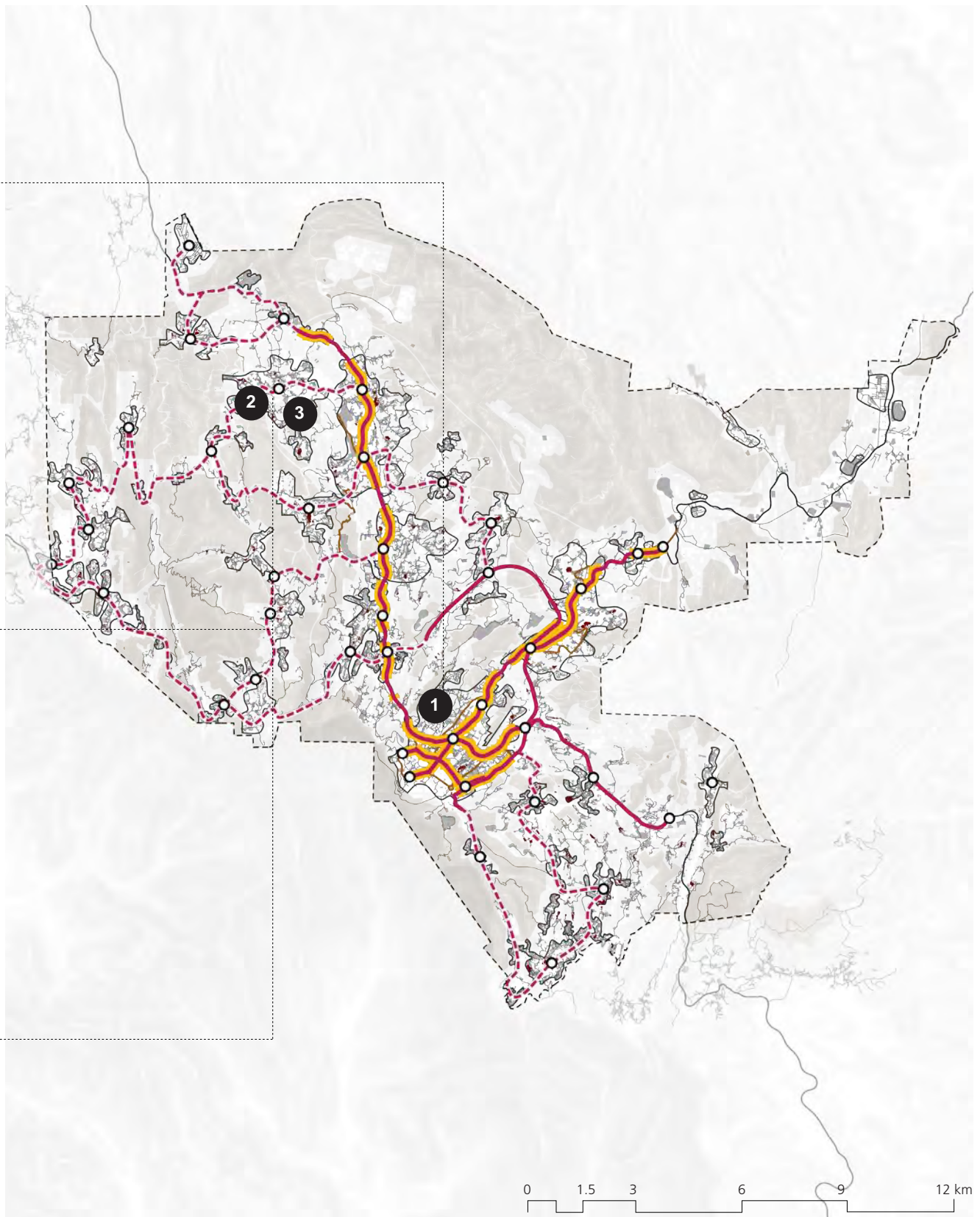


In a second step the connectivity between the individual development nodes should be improved. This will boost the creation of synergies between the distinctive nodes.

3.



The improved secondary linkages provide corridors for a extended public transportation network, in addition to the proposed network along the main regional roads. This will enhance the connectivity between the individual nodes and to the main city centre.



- - - - - Secondary linkages
- Proposed public transport lines
- Downscaled mixed-use corridors
- Primary public transit stations
- Development nodes
- Built-up area
- Regional roads
- Undevelopable land

Fig. 51. Action 1: Increase connectivity between individual development nodes

7.4.2 Action 2: Consolidate individual development nodes and create vibrant urban centres

The second action is focused on the consolidation of the urban nodes to achieve a sustainable and self-sufficient development cluster and to prevent encroachment of settlement activities on agricultural lands. The resultant benefits of this action will include increased accessibility and walkability of the city, usable public spaces, new interactions, reduced congestion, and boosts to the local economy. This action encourages new types of urban services and conversion of unused land into productive landscapes that contribute to the city's economy and health. Action 2 can be summarised in the following steps:

2.1 Promote densification of individual development nodes

The first and most crucial step is to promote compaction in the urban fabric. This involves consolidation on various scales. Limiting sprawl on the city scale requires action to prevent outward growth from individual nodes. A hierarchy of consolidated development nodes must be defined to improve the functional connectivity. A balanced provision of health, education and institutional services should be introduced and maintained within the nodes. Following densification of the nodes, the secondary developments along the major roads should be compacted to generate a spine for the city and prevent further sprawl. This will also prevent uncontrolled development from encroaching on valuable agricultural lands.

2.2 Develop available vacant land within the current built-up area

At the local scale, the extensive vacant lands within the individual nodes should be developed. This will require incentivisation and regulation to promote development and address ownership conflict. If the vacant land is opened for incremental development within the existing urban footprint, it can prevent sprawl, instead incentivising future growth within the footprint and providing a continuous city fabric that will activate the street frontages and create vibrant urban spaces. This infill development can be used to balance land use and provide amenities lacking in surrounding neighbourhoods such as parks, open spaces, or public facilities.

2.3 Promote mixed-use in the centre of each development node

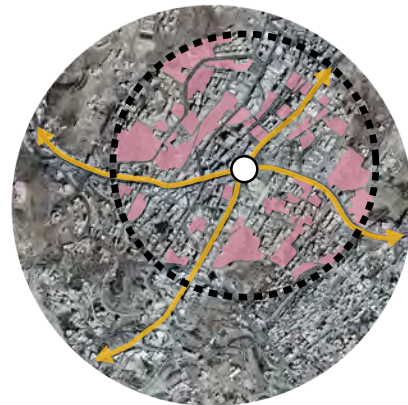
Densification of development nodes must be supported by mixed-use areas in the centre of each individual node to ensure diversity and vibrancy. Centres that are economically diverse, would improve access to services and daily goods for the residents supported by the public transportation network. Introducing a mix of uses, that activate the space at different times of the day, would attract diverse businesses and users, and make the space more vibrant and safer. Through enhanced street life, these areas would become lively and unique points of attraction.

1.



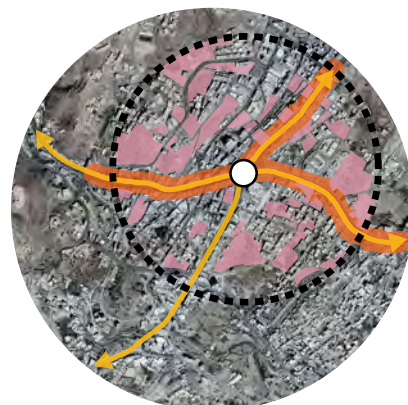
Primarily, further uncontrolled sprawl of the individual development nodes should be avoided to preserve fertile agricultural land from encroachment

2.



The densification process has to take place within each development node, especially in the urban centres and the main city centre, which are related to the public transport system stops.

3.



Promoting mixed-use long transport lines will increase the quality-of-life of the residents and improve accessibility.

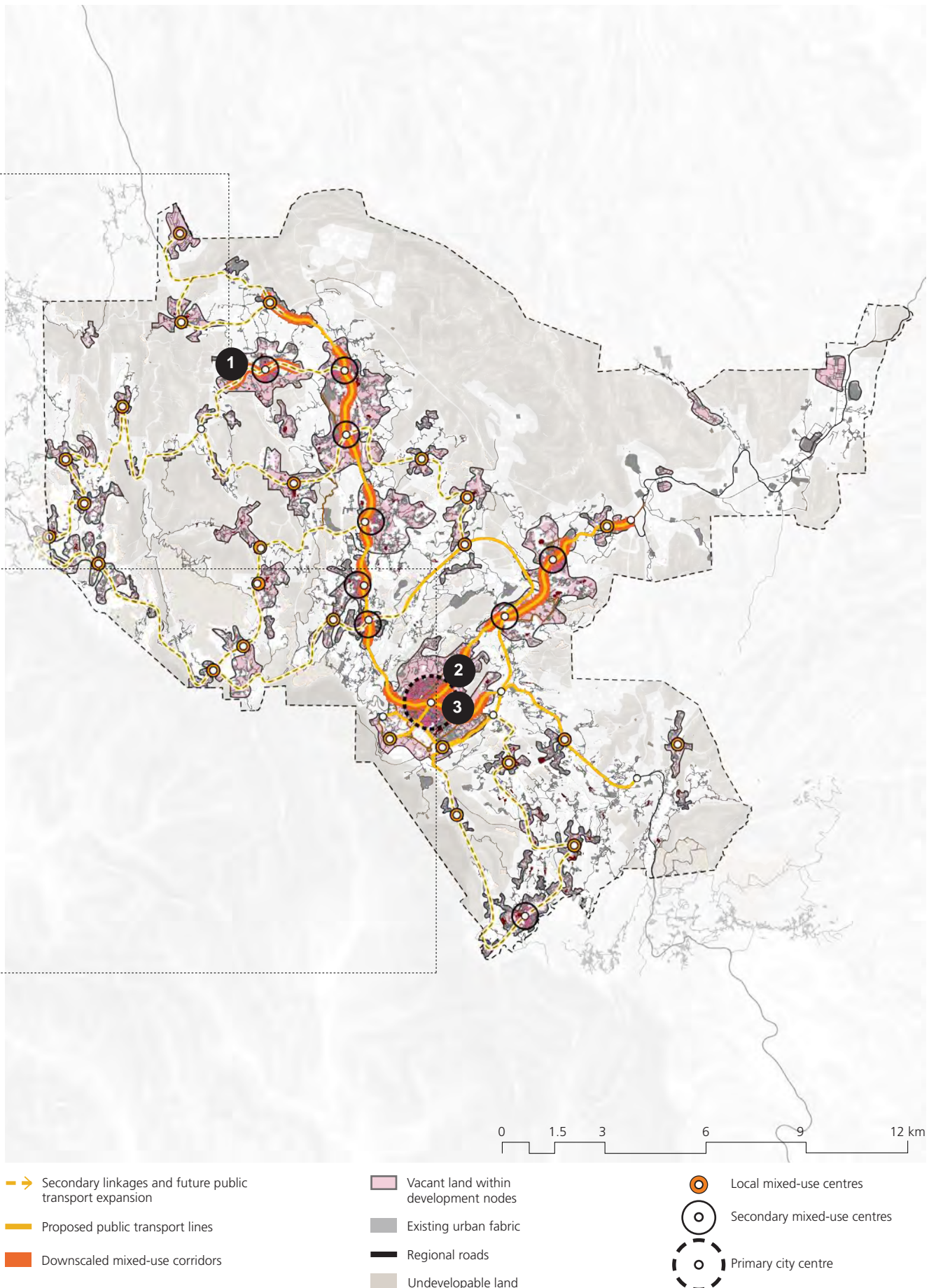


Fig. 52. Action 2: Consolidate individual development nodes and create vibrant urban centres

7.4.3 Action 3: Preserve natural assets and establish a network of green public spaces

The third action aims to make the city more resilient, sustainable, and enjoyable for its residents. It focuses on preservation of natural resources via an improved water management strategy and development of the agricultural sector. This action maintains that the agricultural sector is critical to the city's future growth the country's food supply. Introducing sustainable infrastructure and irrigation methods is of priority to preserve the existing natural features and assure long-term development and productivity. Lastly, the unique topography of Al Baha can be positively interpreted for a network of green public spaces across the city. Action 3 can be summarised in the following steps:

3.1: Preserve agricultural land and connect it with the urban fabric

Considering the country's dependence on food imports, reactivating the abandoned areas and introducing measures to maintain the agricultural lands is essential. Various measures and programmes must be undertaken to preserve existing agricultural land, including governmental level, legally binding regulations. The relationship between the built-up area and farms needs to be defined to integrate both functions in a way that fosters farm productivity without harming the ecosystem. Food markets and food processing industries can be integrated into the city network, preferably where agrarian activities are clustered. To support productivity and revenue generation, establishment of cooperatives and similar structures should be taken into consideration. Suitable areas for manufacturing and logistics should be identified and made available for potential investors to grow related industries.

3.2: Prepare a comprehensive water management strategy to save natural water resources

Al Baha's inevitable future challenges posed by freshwater scarcity must be addressed. A comprehensive water management strategy must be introduced not only in the city, but also for the entire region. Programmes and incentives must be set in place to discourage and limit intensive and industrial agricultural farming methods so as to reduce stress on water resources. Alternatively, it is important to encourage traditional models of farming to boost sustainable economic activities and reduce depletion of aquifers. In Al Baha, existing connections between blue and green networks, in the form of terraced farms along the wadi corridors, provide a strong foundation for a comprehensive water management strategy. In addition, the existing water drainage network must be improved to reduce flood risk both in the built-up area and farmlands by utilising the existing wadi system.

3.3: Establish a network of green public spaces

The natural landscape of Al Baha provides a precious opportunity to integrate a well-connected network of green spaces with the city. This network can be designed to connect natural features such as wadis, steep hills and farmlands, with the urban fabric, interweaving the development nodes. Punctual interventions utilising selected vacant land within the development nodes would strengthen the integration of green spaces and their daily use within the urban centres. This approach to quality open public space should be combined with a well-designed pedestrian infrastructure to promote walking within the city and to improve accessibility.

1.



A network of different kinds of open spaces should be created and linked with the existing as well as abandoned agricultural farms.

2.

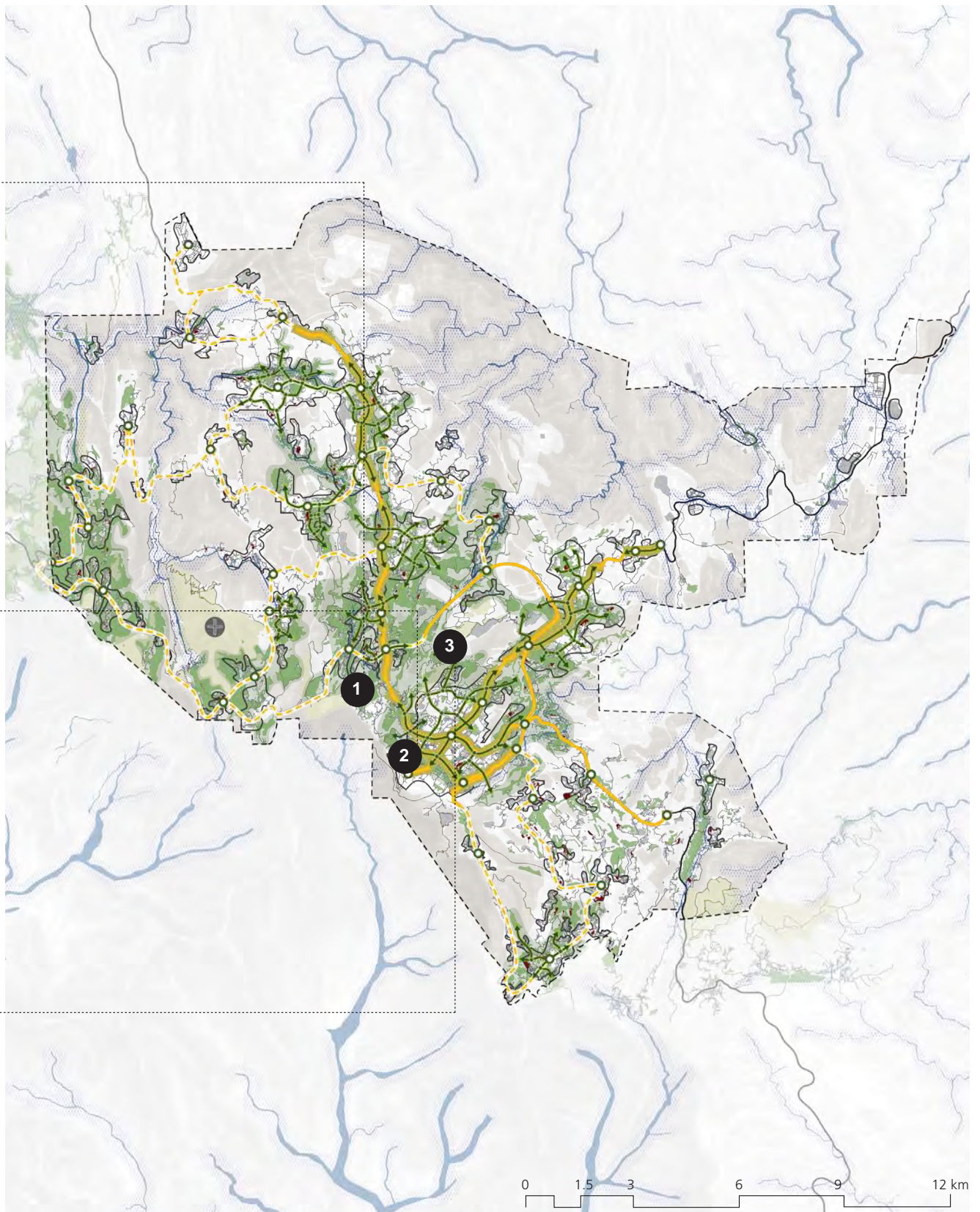


Within each development node, the public realm needs to be improved. Creating an open and public space network which connects to the agricultural farms will benefit the quality-of-life of the residents.

3.



Develop water strategies to reactivate abandoned agricultural land and ensure a sustainable usage of scarce resources.



- > Secondary linkages
- Proposed public transport lines
- Downscaled mixed-use corridors with improved walkability
- Forests
- Agricultural land
- Agricultural clusters - revitalise abandoned land
- Built-up area
- Undevelopable land
- Open space network
- Wadis
- ▨ Wadis buffer zone
- New centralities providing public open spaces

Fig. 53. Action 3: Preserve natural assets and establish a network of green public spaces

7.4.4 Action 4: Rehabilitate and connect vernacular urban structures

The last action focuses on preservation and rehabilitation of vernacular assets that are spread across the city within its development nodes. Reactivating and linking these assets to green spaces and commercial activities by pedestrian trails and public transportation would have an impact not only on Al Baha's cultural identity but also on its economic sustainability. Action 4 is constituted of the following steps:

4.1: Develop guidelines to protect and rehabilitate vernacular urban structures

A system of regulatory controls should be applied to historic or vernacular structures within the development nodes, including the city centre. Preserving and upgrading these patterns would enshrine the identity of the city as constellation of small historic villages. Guidelines enforcing development protection zones around assets and restrictions on modification to maintain identity must be enforced. As an initial step, two to three settlements can be selected for pilot restoration projects to gain an understanding of rehabilitation processes and the effectiveness of the guidelines. Reactivating these structures by integration into surrounding urban functions would create unusual places within the city centre and nodes, that will contribute to the distinctive character of the city.

4.2: Link all vernacular structures to create a heritage trail

Create a comprehensive network of all historic and vernacular structures including the historical farmlands through strategic connection with the established network of green public spaces proposed in action 3. This network should be designed to be pedestrian-friendly and connected to the city centre. In cases in which assets are not feasibly integrated with the pedestrian network, they should be connected to the public transportation network. This would be the case for the archaeological village of Dhee Ain. This connected network would support the development of a tourism strategy for Al Baha which will form another essential step in diversifying the city's economy by leveraging its unique identity. Further investment is required to retain human capital of the city and prevent migration to neighbouring territories. Suitable training courses and reliable university education in the fields of tourism, heritage, conservation and business development are essential to generate a skilled labour force.

1.

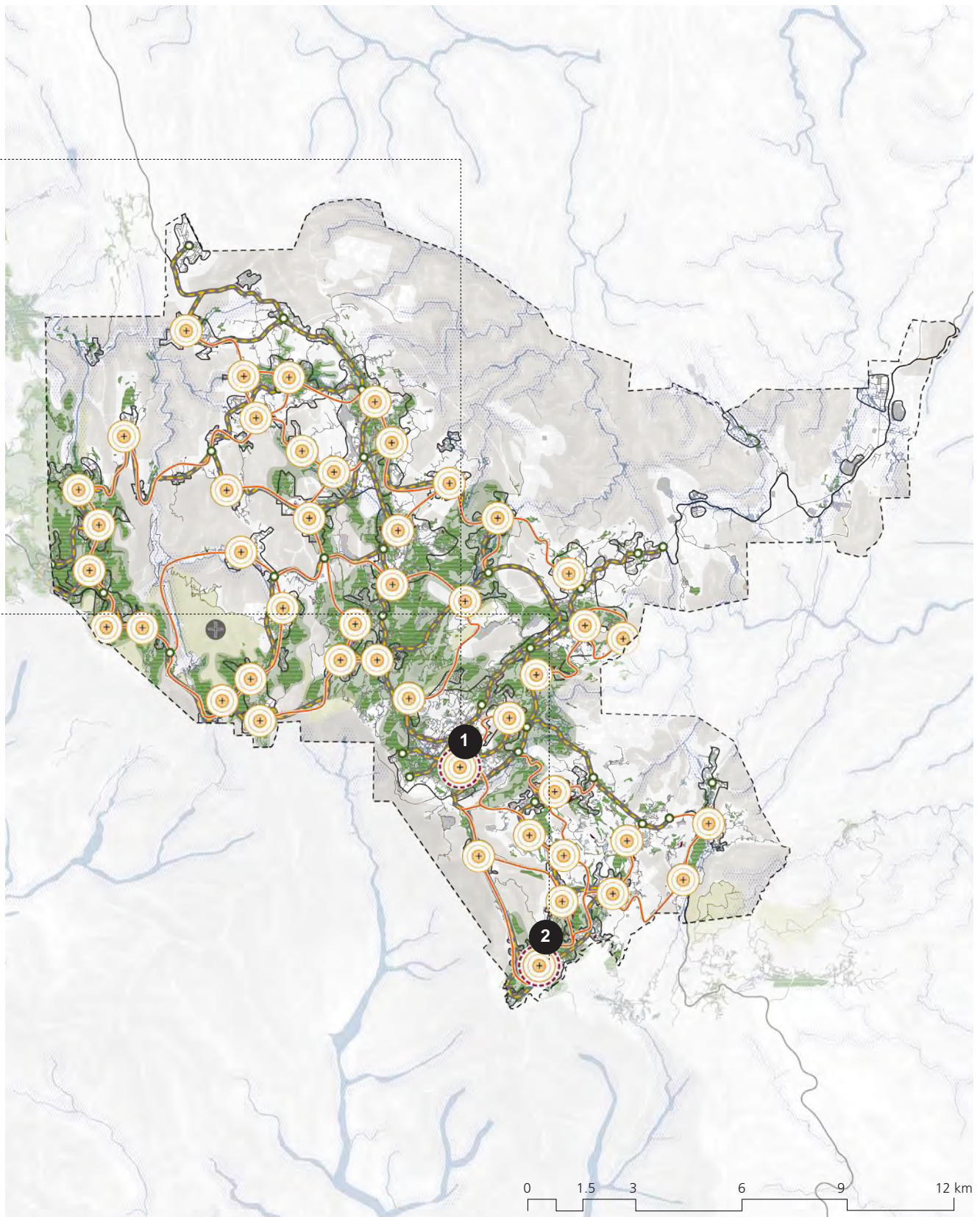


Developing guidelines to protect and rehabilitate vernacular structures is a first step and should be tested on two or three pioneering sites to validate the effectiveness.





2.



A heritage trail which connects the different heritage sites and the historic farms will support the branding of Al Baha as unique active and cultural tourist destination.



-  Cultural and heritage sites to consolidate and link to the agricultural landscape
-  Potential pioneering areas for redevelopment

-  Forests
-  Agricultural land
-  Agricultural clusters - revitalize abandoned land
-  Built-up area






-  Wadis
-  Wadis buffer zone
-  Extended public transport network
-  Proposed heritage trail
-  Undevelopable land

Fig. 54. Action 4: Rehabilitate and connect vernacular urban structures

FINAL RECOMMENDATIONS: THE THREE-PRONGED APPROACH

7



8.1 Spatial Recommendations

8.1.1 *A strategic view of the Al Baha Region*

The Al Baha Region is of great importance, especially in the Hejaz Region. Currently, the NSS³¹ of 2001, outlines a strong link between the Al Baha and the Makkah Regions, through Taif. This links the smallest region in the kingdom to the city system of Jeddah, Makkah and Taif. Al Baha's strongest entry point is on agriculture and tourism.

Of the principal advantage to the region is its domestic airport, which currently serves only as a passenger port. The airport holds the potential to become a freight hub for goods distribution within the kingdom. The proposed railroad that will stretch to the North of Aqiq through to Tabala and Bisha, as South to Muzailif and Al Qunfudhah, could open the region to more possibilities in inter-regional passenger transport and freight, promoting trade and boosting regional GDP. This recommendation is, however, premised on the successful execution of the proposed rail line.

On analysis by the Al Baha Amanah, as of 2015 approximately 43% percent of Al Baha City is deemed undevelopable by the region's mountainous terrain. This topographic challenge is seen as an impediment to the region's potential, however, there are terraced agricultural terraced lands that benefit

from this topography and could be regenerated to a level that would support production. The regions' proximity to the sea, and the neighbouring Asir Region's desalination plants could be helpful in supplementing and complementing the existing water wells.

The region has allocated SR20 million to the restoration of archaeological village of Thee Ain with hopes of transforming Al Baha into a top tourist destination. This is one of a number of ancient villages that are included in a national plan being formulated with the World Bank to encourage private investment in heritage sites. This plan could be leveraged by the region to counteract the disadvantage it faces in the loss of developable land (918 sq km) to slopes of more than 30°.

8.1.2 *Al Baha: Integrative growth through strengthened identity*

The preservation of the agricultural lands, and development of related industries such as food processing, will form the foundation of Al Baha's successful short and long-term growth. In line with this development vision, retrieved from the VISION 2030, measures must be taken to hinder further sprawl of



Historic settlement in the Al Baha Region



© FSCP

Workshop discussion in Al Baha with stakeholders and ministers

the individual development nodes and prevent encroachment and conversion of the agricultural land. These lands are vital to the local economy and the assured food security of the country. Maintaining the city's green image through the revival of twill also facilitate touristic growth. Once the agricultural and tourism sectors begin to developing and the measures to improve the urban distribution are implemented, the attraction of visitors, new businesses and investments will naturally follow and further boost the local economy.

The following four steps are identified as fundamental to overall development: the consolidation of the existing development nodes, the improvement of linkages between the nodes, the designation of agricultural hubs to be integrated in the open space network and the revitalisation of the historical settlements for their integration into a tourism strategy.

Al Baha's nodal relationships to its centre are highly fragmented. Consolidating its nodes and providing services, leisure areas and business opportunities are essential. These services need to fit the income brackets of the residents and the local culture; however, the centre needs to provide recreational activities and access to open spaces. Currently, a primary road network connects the city with the region through a limited number of connections at significant development nodes. The proposed ring road, parallel to both sides of the existing regional highway, is designed to distribute traffic out of the city. However, the ring-road's current design is over-dimensioned and economically infeasible. The financial cost for the city is significantly higher than the projected benefit can justify. In fact, this road can potentially negative impact commercial businesses along existing regional roads and centre, diverting potential customers. Therefore, the alignment and requirements for the ring road should be reconsidered, and potentially redirected toward a hierarchical, network approach.

To guarantee sustainable and integrated growth, the right set of plans, and legislative mechanisms need to be put into place. A comprehensive and cross-sectoral urban development strategy would support the local government to guide future growth, support decision making and further clarify where strategic investments, either from local or national level, are required. This strategy should address land use, but also clearly define areas to be restricted or protected from development and set fundamental parameters for individual zones.

8.2 Institutional and Legal Recommendations

Al Baha 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, but their implementation will require coordination with all spheres of governments with participation from civil society, the public sector and other relevant stakeholders.

- The Al Baha Amanah could be strengthened through enhanced human resources and by forming an internal executive and administrative body to streamline its vertical and horizontal coordination with other planning authorities and to improve the quality of project implementation.
- Fiscal decentralisation, which gives autonomy to the Amanah to source funds to finance development activities that enhance the implementation of the regional, structural and local plans. 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.
- Opening of avenues for actors, including the private and voluntary sector and the general community, to participate in decisions regarding projects that affect them;
- Creating an information system to hold and organise significant urban data and imagery, that is accessible to all government agencies would facilitate the preparation of spatial plans and projects.

Consolidation of the planning legal instruments would also support development intervention of Al Baha. These laws require review, with a view to update and modernise in order to improve their relevance to the current development paradigm. For the Al Baha Region, this means considering the unique natural, urban and demographic characteristics of the area. This should also entail re-consideration of the lawmaking process to limit the number of actors. The mere existence of laws in KSA will not guarantee sustainable urban development as they additionally must be functionally effective. This requires that they be precise in their intended results, clear, consistent and simple to understand. There is a need for a functionally effective urban planning law that, inter alia:

- 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

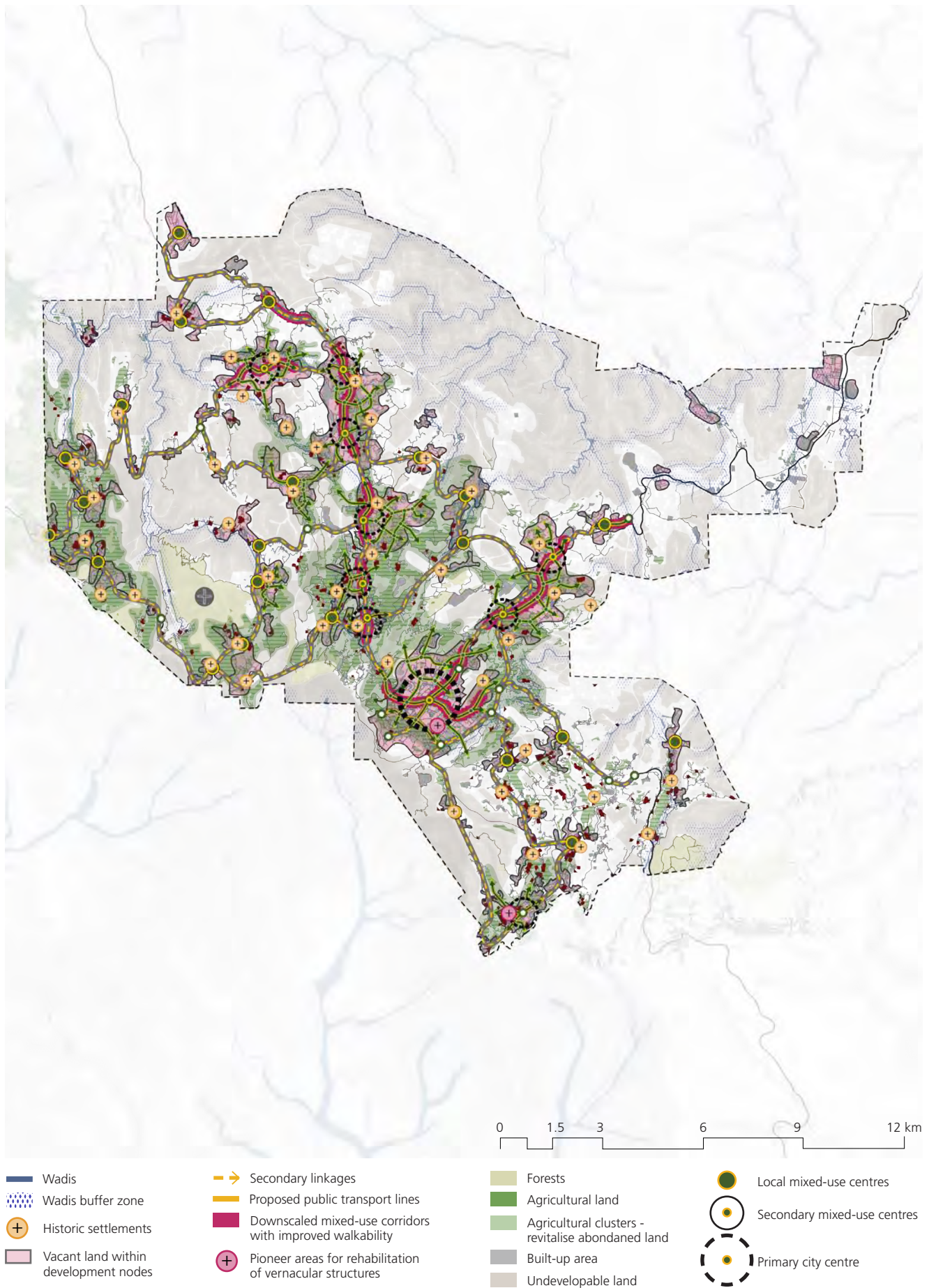


Fig. 55. Action plan for Al Baha

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 provide legitimacy to the plans that Al Baha relies on.

The Al Baha Local Plan, which is yet to be approved, could be revised to spearhead the preservation of agricultural land and green areas inside the city and promote sustainable urban development.

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 the Development Protection Boundary as a non-development zone, not only to prevent haphazard development but also to prevent private interests from taking advantage of laxity in the legal text. These initiatives will strengthen policy formulation designed to improve sustainability, compaction and density in the 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.

8.3 Financial Recommendations

In 2015, the 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 improved tax administration and economic diversification.

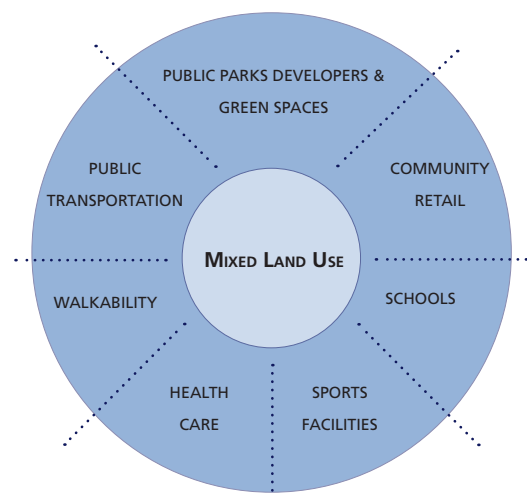
Al Baha's public finance priorities are closely aligned with Saudi Arabia's larger national development goals, which include supporting SMEs in key sectors such as agriculture, green and cultural tourism, trade, and manufacturing. Therefore, expanding the public sector's capacity to finance essential local infrastructure and projects supporting development in these areas is imperative for the city.

International experience, with enhancing own-source tax revenue through a variety of tax mechanisms that harness local financial resources for public use are promising.³² This refers most specifically to taxation of real estate value capture mechanisms. Although some cities of the Kingdom have been implementing new property taxes such as the White Land Tax, exploring other tax instruments should be a priority for Al Baha, in order to generate a diverse income stream portfolio.³³

Introducing land-based taxation establishes reliable own-source revenue for local governments. Moreover, the benefits associated with development projects, (e.g. public transportation and social infrastructure) are often multiplied by the positive externalities and value created by sustainable and accessible urban spaces.³⁴ This can direct a portion of land value increases back into the government revenue stream.³⁵

UN-Habitat suggests that Al Baha makes use of land-based tax mechanisms, (i.e., betterment levies) in public development projects.

Public infrastructure like transportation systems can spur adjacent residential and commercial development, enhance mixed land use and create jobs. Local development driven by public projects can also result in increased land value and indirectly engender a number of other community benefits.³⁶



Source: United Nations Human Settlements Programme (2018)

Fig. 56. Components of mixed land use

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, particularly in commercial and leisure areas.

Several finance tools are available to local governments to expand 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;
2. A holistic approach. PPPs should be focused on linking infrastructure investment and land development, thus maximising benefits that correspond to mixed land use;
3. Investing in capacity building and improving tax administration;³⁷
4. Fostering participatory processes in order to involve the community and build up a sense of trust toward local reforms;³⁸ and



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Addressing legal framework issues with the local authorities of Al Baha City

- 5. Tailoring fiscal monitoring instruments in accordance with local needs (e.g., fiscal cadastre in Bogotá, Colombia).³⁹

Lastly, coordination among planning, legal/regulatory frameworks and local finance is crucial to the creation of the necessary local conditions for sustainable and equitable development, as outlined in the New Urban Agenda.⁴⁰

THE IMPACT OF INFRASTRUCTURE DEVELOPMENT ON LAND VALUE

Case Examples	Key Findings
Bogotá, Colombia	<ul style="list-style-type: none"> Research suggests that for every additional 5 minutes of walking time to a public transportation station, rental prices fell by 6.8 - 9.3%
Cairo, Egypt	<ul style="list-style-type: none"> Urban development that included retail facilities resulted in a price premium of 15 – 20%. Schools increased residential land prices by approximately 13% Walkability within a residential community increases home values by up to 9%

Source: GVA (2018); Mohammad et al. (2017); Colliers International (2017); Rodriguez and Targa (2004).

Fig. 57. The impact of infrastructure development on land value

CASE STUDIES AND BEST PRACTICES

WASTE MANAGEMENT

In the Tamil Nadu State of India, a waste management project proposed the central government (35%) and the state government (15%) to share 50% of the total project costs. A private entity (via a PPP) would provide the remaining 50% of project funding. The private concessionaire would be responsible for planning, designing, building, financing, operating, and maintaining the municipal solid waste management facilities 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 2 to 4-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% 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, while 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). The Canadian Council for Public-Private Partnerships, & PPP Canada. (2011). Public private partnerships: a guide for municipalities. The Canadian Council for Public-Private Partnerships. Canada.

Fig. 58. Case studies and best practices

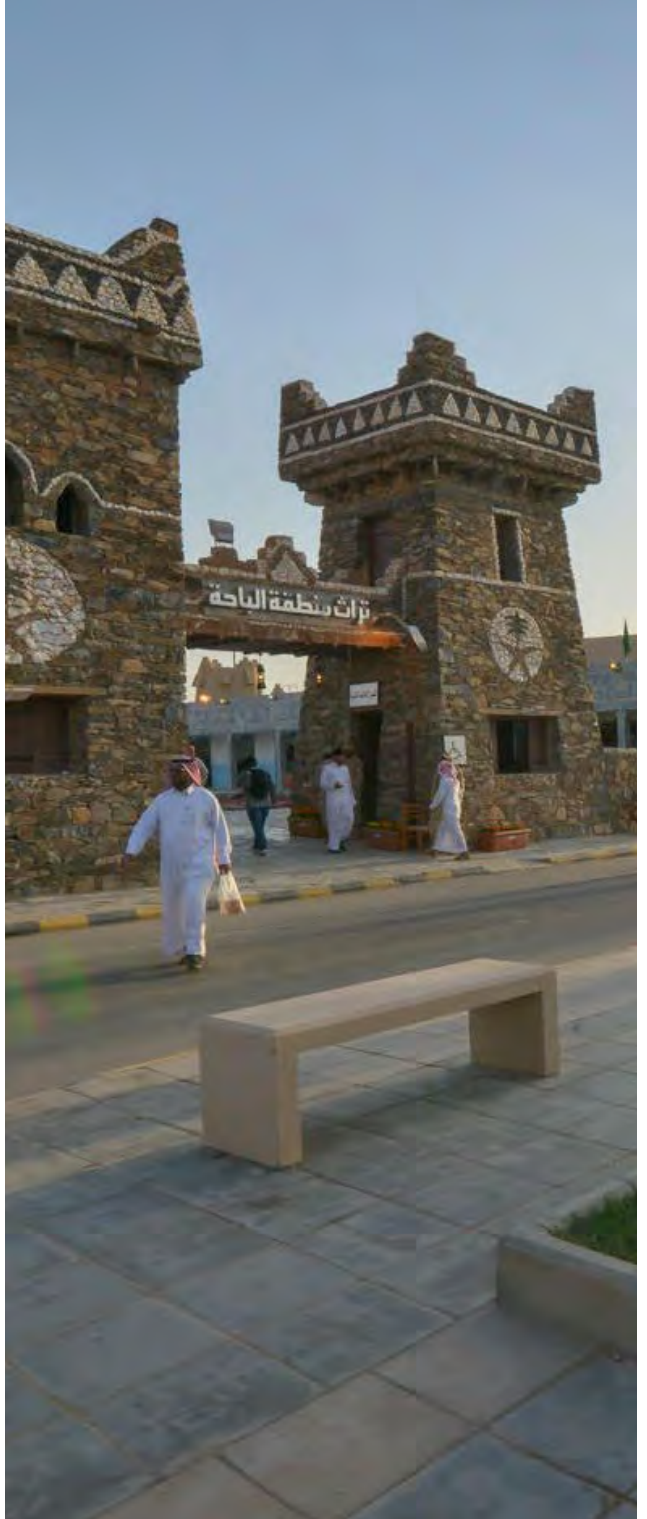


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Rural areas of Al Baha

8

ANNEX



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9.3 Notes and References

- 1 SAGIA Report, 2014; SAMA Annual Report 2013, Estimation of the Study
- 2 Mahmoud SH, Alazba AA (2015) Hydrological Response to Land Cover Changes and Human Activities in Arid Regions - Using a Geographic Information System and Remote Sensing. PLoS ONE 10(4): e0125805. <https://doi.org/10.1371/journal.pone.0125805>
- 3 SAGIA Report 2014; Agricultural Yearbook 2012/ Ministry of Agriculture
- 4 Industrial Report of the Kingdom 2013/ Ministry of Trade and Industry
- 5 Ministry of Trade and Industry
- 6 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.
- 7 Some are located inside the Al Baha City centre (in 3 residential districts) whereas some of these buildings are distributed along Al Baha regional roads.
- 8 A limited number are found inside the city - distributed along Al Baha regional roads.
- 9 Total population in the region was 411,888 in 2010.
- 10 The total population of the city of Al Baha being 103,411 in 2010
- 11 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.
- 12 The Plan is being considered for approval by the Minister of MoMRA.
- 13 Al Baha workshop in 2018.
- 14 Royal Decree No M/4 dated 24 November 2015 (the "Law") and Council of Ministers Decision No. 377 dated 13 June 2016 (the "Regulations").
- 15 UN-Habitat Workshop held in Al Baha 2018.
- 16 Royal Decree of 1975.
- 17 See Royal Decree No. (1663) of 1976.
- 18 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.
- 19 Chapter 5 of the State of Saudi Cities Report, "Managing Urban Transformation in Saudi Arabia - The Role of Urban Governance (2018)" pg. 16.
- 20 See Article 5 of the Law of Regions to Royal Order No. A/92 (1993).
- 21 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.
- 22 See *ibid* n.15, Article 23
- 23 The percentage of factories shows that non-metallic and mineral product are key sectors for the regional economy, representing 48 percent of the total. These sectors attract the larger share of private capital, which account for 76 percent of the capital invested in Al Baha economy. Saudi Industrial Development Fund (2016).
- 24 The contribution of Al Baha Region to national GDP is 1.0 percent. Saudi Arabian General Investment Authority. (2014). Makkah Region Economic Report 2014. The Kingdom of Saudi Arabia.
- 25 Land protection and Agriculture development, Green Tourism and Education are priorities for local economic development and were important topics discussed during the Rapid Planning Studio workshop held in Al Baha (September 2018).
- 26 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.
- 27 Approved 2016 Budget for Al Baha Amanah, Ministry of Finance, The Kingdom of Saudi Arabia.

- 28 In FY 2017, land sales, signboard fees, store license fees, and construction, renovation and demolition charges are the main contributors to own-source revenue, representing 44 percent of Amanah's local income. Al Baha Amanah (2018).
- NTP goal is to increase own-source revenue to 40 percent of municipal budgets by 2020. In 2016, intergovernmental transfers comprised 91 percent of the total budget for the Al Baha. Approved 2016 Amanah Budget, Ministry of Finance, The Kingdom of Saudi Arabia;
- 29 D. Godschalk (2003) Urban Hazard Mitigation: Creating Resilient Cities, *Natural Hazards Review*, Vol. 4, Issue 3
- 30 Definition from UNDP/UNESCO, Quito Colloquium, 1977.
- 31 The National Spatial Strategy of Saudi Kingdom, 2011.
- 32 Potential revenue contribution through immovable property taxation is 2.1 percent of GDP in high-income countries, while in middle-income countries it contributes an additional 0.6 percent 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.
- 33 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 percent 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.
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- 35 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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- 40 United Nations. (2017). New Urban Agenda. United Nations Human Settlements Programme, Nairobi, Kenya. Retrieved from <http://habitat3.org/the-new-urban-agenda/>

