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Urban Planning & Infrastructure in Migration Contexts

MAFRAQ SPATIAL PROFILE

Jordan



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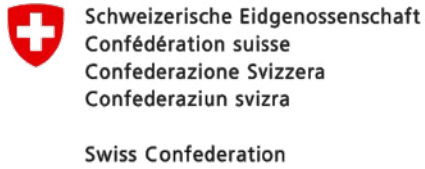
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Abbreviations

AAWDCP	Amman Aqaba Water Desalination Conveyance Project	ISTD	Income and Sales Tax Department
AB	Audit Bureau	ITS	Intelligent Transport Systems
AF	Adaptation Fund	JEF	Jordan Environment Fund
AFD	Agence française de développement (French Development Agency)	JEPCO	Jordan Electric Power Company
AiIB	Asian Infrastructure Investment Bank	JIC	Jordan Investment Commission
ASEZA	Aqaba Special Economic Zone Authority	JOD	Jordanian Dinar
BMZ	Bundesministerium für Wirtschaftliche Zusammenarbeit und Entwicklung (Federal Ministry for Economic Cooperation and Development)	JORISS	Information System for Jordan Response Platform for the Syria Crisis
BRT	Bus Rapid Transit	JREEEF	Jordan Renewable Energy and Energy Efficiency Fund
CapEx	Capital Expenditures	JRP	Jordan Response Plan
CBO	Community-Based Organization	JVA	Jordan Valley Authority
CES-MED	Cleaner Energy Saving Mediterranean Cities	KAP	King Abdullah Park
CRUMP	Climate-Resilient Urban Master Plan	KfW	Kreditanstalt für Wiederaufbau (German Development Bank)
CVDB	Cities and Villages Development Bank	KHBTDA	King Hussein Bin Talal Development Area
DAILL	Decentralization, Accountability, and Integrity at the Local Level	LDP	Local Development Plan
DEF	Development and Employment Fund	LDU	Local Development Unit
DLS	Department of Lands and Survey	LED	Local Economic Development
DoS	Department of Statistics	LFG	Landfill Gas
DRR	Disaster Risk Reduction	LLC	Limited Liability Company
EBRD	European Bank for Reconstruction and Development	LTRC	Land Transport Regulatory Commission
EU	European Union	MBT	Mechanical Biological Treatment
GAM	Greater Amman Municipality	MLDU	Municipal Local Development Unit
GCM	Global Compact for Migration	MoENV	Ministry of Environment
GDP	Gross Domestic Product	MoH	Ministry of Health
GEF	Global Environment Facility	MoI	Ministry of Interior
GHG	Greenhouse Gas	MoLA	Ministry of Local Administration
GIS	Geographic Information System	MoPIC	Ministry of Planning and International Cooperation
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Corporation for International Cooperation)	MoPWH	Ministry of Public Works and Housing
GLDU	Governmental Local Development unit	MoU	Memorandum of Understanding
GMM	Greater Mafraq Municipality	MSSRP	Municipal Services and Social Resilience Project
GoJ	Government of Jordan	MSW	Municipal Solid Waste
GWh	Gigawatt Hours	NCSCM	National Centre for Security and Crisis Management
HUUDC	Housing and Urban Development Corporation	ND-GAIN	Notre Dame-Global Adaptation Index
IIED	International Institute for Environment and Development	NGO	Non-Governmental Organisation
IDECO	Irbid District Electricity Distribution Company	NRC	Norwegian Refugee Council
IDP	Internally Displaced Person	NRP	National Resilience Plan
IF	Innovation Fund	NUA	New Urban Agenda
IFRS	International Financial Reporting Standards	OCHA	UN Office for the Coordination of Humanitarian Affairs
ILCA	Improving Living Conditions in disadvantaged Areas in Amman	OECD	Organisation for Economic Co-operation and Development
ILO	International Labour Organisation	PDTRA	Petra Development and Tourism Region Authority
IMF	International Monetary Fund	PESTEL	Political, Economic, Social, Technological, Environmental, and Legal Factors
IOM	International Organisation for Migration	PforR	Programme-for-Results
IRC	International Rescue Committee	PPCR	Pilot Programme for Climate Resilience
		PPP	Public-Private Partnership
		PVC	Polyvinyl Chloride

QEB	Quarterly Economic Brief	WASH	Water, Sanitation, and Hygiene
RGP	Regional Development Plan	WFP	World Food Programme
SDC	Swiss Agency for Development and Cooperation	WHO	World Health Organization
SDG	Sustainable Development Goal	WSUD	Water-Sensitive Urban Design
SECAP	Sustainable Energy and Climate Action Plan	WWTP	Waste Water Treatment Plant
SECO	Swiss State Secretariat for Economic Affairs	3RP	Regional Refugee and Resilience Plan
SRAD	Syrian Refugee Affairs Directorate		
SRF	Solid Recovered Fuel		
SuDS	Sustainable Drainage System		
SWM	Solid Waste Management		
SWOT	Strengths, Weaknesses, Opportunities, and Threats		
UNDP	United Nations Development Programme		
UNFCCC	United Nations Framework Convention on Climate Change		
UN-HABITAT	United Nations Human Settlements Programme		
UNHCR	United Nations High Commissioner for Refugees		
UMF	Urban Monitoring Framework		
UNESCO	United Nations Educational, Scientific & Cultural Organization		
UNICEF	United Nations Children's Fund		
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East		
UPIMC	Urban Planning & Infrastructure in Migration Contexts		
USAID	United States Agency for International Development		
USD	United States Dollar		
WAJ	Authority of Jordan		

Definition of Terminologies

Liwa: refers to the Ministry of Interior's first division after the governorate.

Qada: refers to the Ministry of Interior's second division after the liwa.

Localities: refers to the Ministry of Interior's third division after the qada.

Municipalities: refers to the Ministry of Local Administration's first division after the governorate.

City: refers to the Greater Mafraq Municipality administrative area throughout the spatial profile.

Districts: refers to the Greater Mafraq Municipality's first division.

Neighbourhood: refers to the Greater Mafraq Municipality's second division after district.

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Executive Summary

This document is the product of intensive profiling work done for Mafrq. This profile follows a hierarchical scalar approach, starting from the national level and ending at the city level.

National Level:

Being a safe haven in a region that has experienced much turmoil, Jordan has welcomed several waves of refugees over the years, making it the second largest refugee host per capita worldwide. Significant population growth patterns coupled with rapid urbanisation have resulted in Jordan being one of the 50 most urbanised countries in the world. This has resulted in various challenges and strains on the country's infrastructure, economy, and the quality of services. Additionally, the rapid population growth has led to an increase in land prices in Jordan, making them among the highest in the region. Although there are several plans, policies, and strategies that shape the development of Jordan, each ministry will often plan, implement, and monitor its own projects individually, resulting in haphazard and uncoordinated initiatives and efforts. Furthermore, more than half of Jordan's municipalities are experiencing an acute deficit and high degree of indebtedness. Many municipalities rely heavily on central governmental transfers, while only 3% of the central state budget is dedicated to municipalities.

Nevertheless, while Jordan has scored 67.4 out of 100 for the quality of infrastructure, there are several metrics to improve, particularly in relation to financial markets and funding capacity. The transportation sector accounts for more than 8% of Jordan's Gross Domestic Product (GDP), and the presence of well-connected street network, three major airports, and one seaport has strengthened Jordan's connectivity and transport infrastructure. However, despite the improvements in physical transportation infrastructure, public transportation is still limited across the country. Additionally, Jordan is suffering from the lack of affordable housing, with a total housing deficit of over 15.9%. Moreover, one of the country's biggest challenges is water scarcity, whereby Jordan is the second most water scarce country in the world. Due to dilapidated pipes and tanks as well as improper installation and maintenance, 40% of the water transported by pipes is lost to leakage. Within this context, this spatial profile has analysed the Kingdom from the national to city level with the aim of identifying the key challenges and opportunities. The national level section provides a background on the national and international setting, as well as data on demographics, socio-economic conditions, and refugees in Jordan. This includes an in-depth analysis of cross-border displacement dynamics, the governance and administration system, the national planning context, key plans and strategies, land and property rights, municipal finance, major infrastructure initiatives, affordable housing, and the climate risk context.

Regional Level:

The regional level zooms into Mafrq Governorate, wherein topics such as the governorate's location and connectivity,

the regional land administration and institutional context, the regional planning context, demographics, refugees, regional infrastructural access, land use, natural resources, housing, and the local economic activities were analysed. Mafrq Governorate was established in November 1985, and consists of four Liwas, ten Qadas, and eighteen municipalities. The Liwa and Qada boundaries are outlined by the Ministry of Interior (MoI) and fall under the administration of the Mafrq Governorate, while municipalities fall under the administration of the Ministry of Local Administration (MoLA). As for real estate services and land plotting, the Department of Lands and Survey (DLS) divides the governorate into 2 directorates, 188 villages/urban areas, and 1,382 basins. The misalignment between them impacts the decision-making processes as well as the planning activities within the governorate.

Geographically, the governorate is located within the northern region of Jordan. Mafrq gets its name due to its strategic location, at the intersection of international roads, that connect Jordan with Syria, Iraq, and Saudi Arabia. Its name translates to 'junction' in English. Its location also explains the migration-led population growth and rapid development. As of 2022, Mafrq Governorate constitutes 5.8%¹ of Jordan's total population and is the second least densely populated governorate in Jordan, whereby the majority of the governorate is uninhabited. However, the actual population density in urban areas is expected to be much higher. Moreover, with over half of the governorate's population aged under 25, there is an increased demand on educational facilities and increasing dependency rate, which requires careful planning for the future.

With the influx of refugees into Mafrq in 2011, the governorate has accommodated some development and planning programmes, such as Mafrq Governorate Development Plan, Local Economic Development Strategy for Mafrq Governorate, Qudra 2 Programme, and USAID-CITIES Programme, amongst others. It was one of the most affected Governorates following the Syrian Crisis. Accordingly, it is home to the largest Syrian refugee camp worldwide, and hosts 25.6% of UNHCR registered Syrian refugees. As of 2015, the governorate hosted around 217,079 refugees, including Syrians, Palestinians, and Iraqis. Given that the majority of refugees in Mafrq Governorate are Syrians, the most densely populated areas include Za'atari Refugee Camp, with most out-of-camp refugees concentrated within Greater Mafrq Municipality (GMM), where they live alongside the host community. Additionally, in regards to infrastructure access in the governorate, most urban areas within the governorate are adequately supplied with water and electricity, however, the sewerage system only serves 17% of the governorates total population. Nonetheless, a set of projects have been proposed to improve the water, sewerage, and waste provisions across the governorate. The majority of the land cover is classified as desert areas, followed by

marginal areas at 34%, rural areas at 4.5%, while regulated areas account for a minimal 0.8%. Mafraq Governorate stands as a crucial agricultural center, accounting for 20% of Jordan's cultivable land. Its ground wealth, natural resources, cultural heritage, and the Burqu Nature Reserve add to its appeal. Furthermore, the governorate is making strides in renewable energy, hosting several operational solar projects.

City Level:

This section focuses on the administrative and governance context, urban growth, population density and distribution, the migration context, land use, local economic activity, natural hazards, transport and mobility, planned infrastructure investments, access to basic services, access to public facilities, as well as the municipal financial context in Mafraq city. Mafraq Municipality was created in 1944, and became the Greater Mafraq Municipality (GMM) in 2002. It is divided into 6 districts with an area of 115.1km², accounting for less than 0.5% of the total area of Mafraq Governorate. GMM controls all services provided to all the societal segments, including roads' maintenance, street-lighting, solid waste management, building approvals, tax collections, and others.

As of 2015, GMM accommodated approximately 22.9% of the governorates population. This is largely due to the influx of refugees, whereby 40.3% of its population are non-Jordanians. In return, the demographic dependency of GMM has reached 69%, which is higher than the national rate of 61.4%. Despite a large percentage of GMM's population being refugees, there are no refugee camps within its borders. The population is categorized as urban refugees, residing primarily within the central area of Mafraq City. The urban growth of the city has been associated with multiple factors, including the Hijaz railway, migration, the presence of military camps, introduction of industrial zones, and development of educational facilities, all of which profoundly shaped the urban characteristics of the city, transforming it from village to city. The urban footprint of Mafraq tripled in size in under four decades, with planning being practiced as a reactive measure, following the actual urban growth in the city. Within GMM, the majority of land is privately owned. Residential land use comprises the highest percentage of the regulated area at 59%, while green and open spaces, on the other hand, constitute around 2% of planned areas. Industrial land uses also remain low within the municipality, constituting 1% of land use. It is worth mentioning that commercial land use in GMM follows the street network, specifically main roads. GMM has various active economic sectors, including commercial, educational, industrial agricultural, tourism, and home-based businesses. These sectors have been further spatially analysed throughout this profile. Despite it being considered as the governorates centre, it lacks a well-developed public transport system. Although the Hijaz railway passes through GMM, it is currently not operating. The lack of affordable and diverse means of transportation results in heavy dependency on private cars, thus increasing traffic

congestion, imposing more pressure on the road network, and hindering marginalised communities from accessing proper and affordable transportation means. Furthermore, regarding accessing basic infrastructure, residential areas within GMM are well connected to basic services' networks, including water, electricity, solid waste management, and telecommunication. However, only 55.5% of the population are connected to the sewerage network. Moreover, the municipality does not have a storm-drainage network in place.

Spatial accessibility to public facilities including healthcare, commercial, educational, and recreational facilities was conducted, good accessibility allows access to these facilities within 15- or 30-minutes of walking by residents. A clear disparity is seen between neighbourhoods around the ease of access to health centres, whereby only 24.8% of GMM's population is within a 15-minute walking distance, and 56.1% within a 30-minute walking distance. Additionally, only 42.6% of the population is served with commercial facilities within a 30-minute walking distance. Moreover, recreational facilities are very limited, and the minimal availability of public parks is considered a challenge. GMM is well served with public schools.

Based on historical financial analysis and future projections, in addition to the impact of the Syrian crisis, it is evident that GMM does not hold a strong financial position, despite having multiple self-generated revenue sources. GMM is also experiencing a decrease in revenue from 8.2 million JD in 2018 to just 6.6 million JD in 2022, even with an average population growth rate of 2.2% during this period. In 2022, the highest percentage of expenditures continued to be wages and labour.

Furthermore, an assessment of the Mafraq City's performance revealed that 2.7% of the administrative area is compact, 91% is well-connected, and 4.7% is vibrant. According to the findings of the Mafraq Spatial Profile and introductory workshop, **Al-Hussein was identified as the most vulnerable Neighbourhood** in terms of overloaded public facilities and infrastructure networks due to the refugees' influx and has been selected for the next component

The spatial profile concludes with **a summary of the challenges and opportunities in alignment with the Sustainable Development Goals**. It also includes a **set of recommendations and actions needed at national, regional, and local levels, with specific considerations for vulnerable groups**, demonstrating alignment with the SDGs and the Urban Management Framework. **These recommendations are organized into six main themes of the Jordan National Urban Policy (JNUP)**, highlighting the capability of spatial profiles to identify necessary actions at various levels to support the JNUP implementation.

Introduction

With over 55% of the global population currently residing in urban areas—a figure projected to rise to 68% by 2050—cities are facing increasing challenges in meeting the diverse needs of their inhabitants. Urban spaces have become the primary destination for migrants and displaced populations, with more than 60% of refugees and 80% of internally displaced persons (IDPs) seeking shelter in cities. This trend intersects with growing climate change challenges, posing unprecedented difficulties for cities and local governments in ensuring the well-being, integration, and social cohesion of urban dwellers, particularly in the most vulnerable neighbourhoods. The urgency for long-term sustainable solutions tailored to urban environments highlights the need for a stronger connection between humanitarian and development efforts, especially in the face of protracted crises and displacement.

UN-Habitat is committed to bridging this gap, aligning with the United Nations 2030 Agenda, the Global Compact for Migration (GCM), and the Global Compact on Refugees, to ultimately ensure sustainable urban development and a more secure, long-term response to migration and protracted displacement. Recognizing human mobility as a key driver of urban growth, UN-Habitat has recently and increasingly committed to pioneer alternative approaches that address and harness migration in urban settings. Through the Urban Planning and Infrastructure in Migration Contexts (UPIMC) Programme, UN-Habitat is engaged in evidence-based integrated urban planning that leverages detailed multiscale spatial profiling to identify feasible interventions in vulnerable neighbourhoods experiencing migration influx. UPIMC aims to contribute to bridging the gap between humanitarian and development practices in urban settings through integrated urban solutions that empower communities toward sustainable and inclusive urban futures.

About UPIMC Programme

UN-Habitat's Urban Planning and Infrastructure in Migration Contexts (UPIMC) programme has partnered with the Swiss State Secretariat for Economic Affairs (SECO) to improve access to reliable services and socio-economic opportunities for migrants and host communities in urban settlements. UPIMC supports different municipalities hosting displaced populations in developing long-term strategies that harness their potential to bolster resilience to current and future challenges. UPIMC promotes multi-sectoral collaboration between UN-Habitat, national and

local governments, humanitarian actors, development partners, as well as international financial institutions to develop sustainable interventions that build inclusive, safe, resilient, and sustainable settings. The programme is currently implemented in three countries: Cameroon, Egypt, and Jordan.

Approach and Methodology

UPIMC employs the phased methodology of UN-Habitat's Urban Lab – an integrative urban planning and design facility. The methodology, characterized by its flexibility and adaptability, revolves around three primary areas of focus. Firstly, it endeavours to 'Understand the City,' identifying key trends, challenges, and opportunities. Secondly, it validates the needs and explores necessary changes through participatory activities aimed at 'Planning the City.' Finally, it determines how, where, and when these changes should be implemented to achieve optimal results within the available resources, with the overarching goal of 'Transforming the City.'

UPIMC adapts this methodology to the complex and dynamic contexts in which it operates, and it comprises four interconnected components:

- (1) Spatial Profiling-** to understand the city
- (2) Strategic Vision and Area Planning-** to plan the city
- (3) Prioritized Infrastructure Investments and Linkage to Finance -** to transform the city
- (4) Knowledge Exchange.**

Objectives

UPIMC aims to contribute to national and international efforts to improve the quality of life of migrants and host communities by supporting effective and evidence-based investments for durable solutions at the local level. UPIMC seeks to mitigate the vulnerabilities associated with migration and displacement, empowering local governments and stakeholders to foster complete integration and sustainable development for both migrants and host communities. By doing so, UPIMC significantly contributes to achieving the Sustainable Development Goals (SDGs) at the local level. The programme assesses developmental challenges, needs and opportunities within cities and urban areas, establishing a vital link between local dynamics and broader trends. Going beyond analysis, UPIMC's spatial profiling process serves as a catalyst for action. By pinpointing critical challenges and their precise locations, it sets the stage for developing

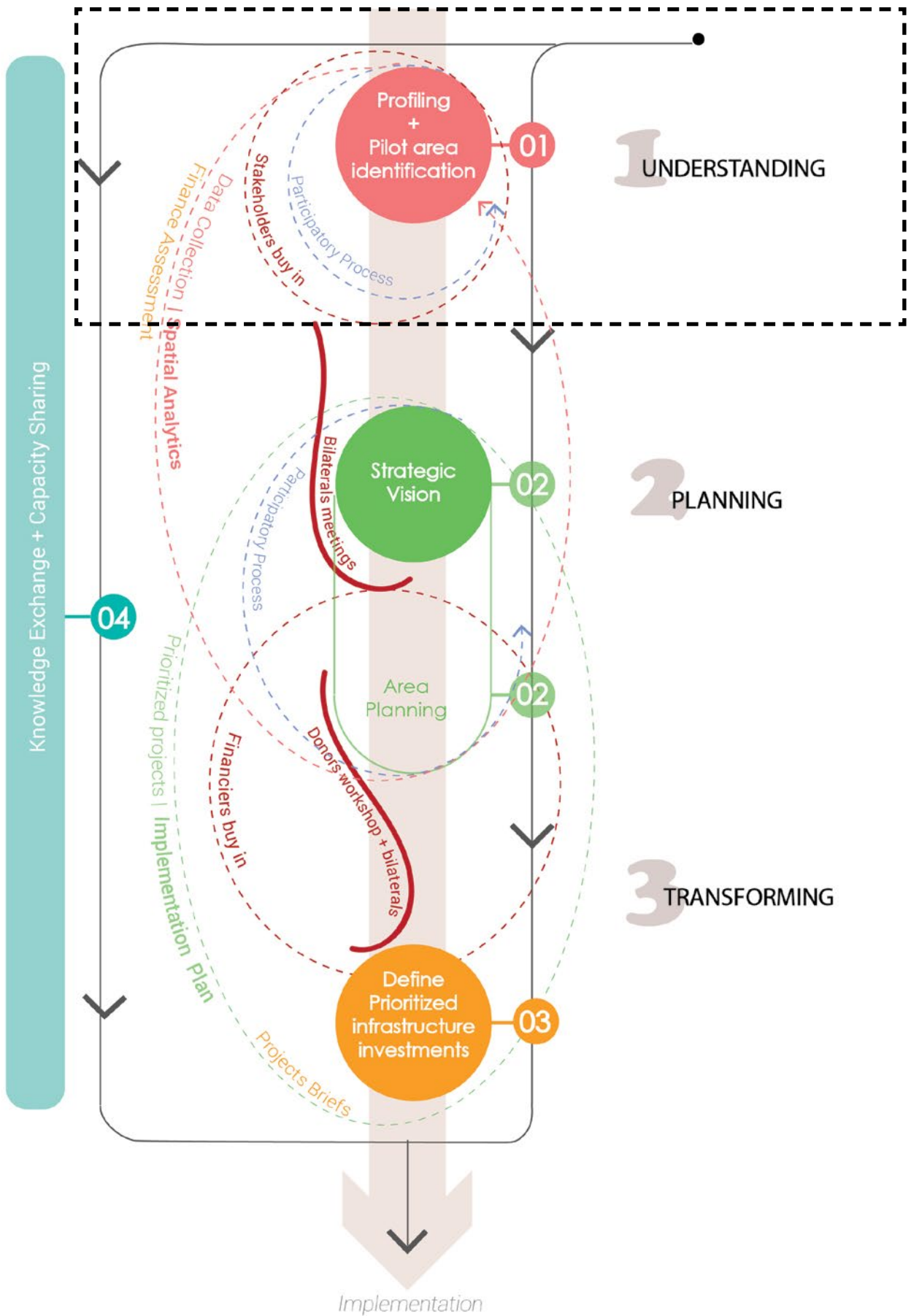


Fig. 1: The UPIMC programme overall process. Source: UN Habitat

a precise urban vision and action plans for selected pilot areas, implementing impactful local interventions targeting migrants, displaced populations, and host communities. It's not just about understanding the context; it's about planning, transforming, and making sustainable change happen at the local level.

About this Document- UPMC Spatial Profiling Component

In the first phase, UPMC develops spatial profiles through a comprehensive cross-sectoral and multi-level analysis of urban areas hosting migrants and displaced populations. This provides a spatial understanding of the dynamics, challenges, and opportunities of migration and urban development in the pilot cities, which will crucially inform long-term decision-making in urban development and infrastructure planning. The profiling exercise maps critical intervention areas and their precise locations and is used to identify the pilot neighbourhood through participatory validating workshops. While the spatial profile is a stand-alone document, it functions as a roadmap guiding subsequent steps taken by UPMC in the selected neighbourhood. It is therefore essential to consider it while reading the vision, scenarios, and action plans that will be produced during the second and third phase.

This publication comprises the spatial profiling of the city of Mafraq, in Jordan and represents the first component of the project in the city. The profiling exercise is to be used to inform the transformation of the city and especially of its most vulnerable neighbourhoods through targeted interventions in alignment with global objectives and trends. This approach encapsulates the essence of 'localizing,' linking global objectives to the very grassroots level. On the other hand, the detailed analysis of dynamics and priorities that are identified at the city and neighbourhood levels can crucially inform broader development trajectories in the country and the region.

Target Audience

The Mafraq Spatial Profile provides entry points for national and international practitioners who seek to develop long term development strategies in their cities, as well as donor organizations and potential financiers. At the same time, this profile targets grassroots individuals, who are the primary change-makers in their communities, by providing a spatialised overview of the main potentials and opportunities of the profiled cities.

UPMC in Jordan

The UN-Habitat Jordan office has an established presence in Jordan, including contextual experience within the Jordanian context and partnerships with key stakeholders. On the ground, the UN-Habitat Jordan team is engaging the relevant actors, including the local community, and agencies, including local NGOs and CBOs, to explore catalytic development projects to improve access to basic needs and infrastructure as well as incremental changes in the enabling policy environment that will contribute to the delivery of long-term visioning and priority areas. It provides necessary logistical support to ensure the effectiveness of the UPMC programme, particularly focusing on on-the-ground coordination, implementing a multi-stakeholder approach, and ensuring the timely completion of tasks and objectives within predefined schedules. Additionally, Phase 2 benefits from the existing synergies with other UN-Habitat Jordan programme activities in Mafraq, including the development of a water-sensitive master plan of Greater Mafraq Municipality and an urban observatory.

Two of the most significant challenges faced by the UN-Habitat Jordan team during phase 2 was the limited municipal capacities and lack of up-to-date data in the Greater Mafraq Municipality. This resulted in difficulties when developing the Spatial Profile and formulating strategic analysis and spatial mapping. In the context of GMM's unique urbanization issues, including rapid population growth, it was found that, when data was available, it often proved to be outdated, further complicating the task of accurately assessing the challenges and opportunities for strategic sustainable development in GMM. However, within these challenges lie significant opportunities for transformative impact. By supporting in the development of municipal staff's capacities and their understanding of sustainable development approaches that the UPMC programme supports, there is an opportunity to contribute to the resilience and adaptability of this important local governance structure. Additionally, supporting in the collection and analysis of data offers the opportunity to leverage local and national partnerships in Jordan to establish interconnected and collaborative data collection and management systems. Furthermore, the participatory data collection methods that UN-Habitat has been applying supports in enhancing the accuracy of data as well as increasing community involvement and ownership in the decision-making processes.



UPIMC Introductory Workshop

Before commencing the development of the Mafraq Spatial Profile, an Introductory Workshop took place on Tuesday, August 15th, 2023. This workshop was essential for early engagement with key stakeholders in the UPIMC process. Such engagement at the project's outset streamlines data gathering, secures buy-in from governmental authorities, and ultimately contributes to the project's success. Participants included 63 representatives from ministries and governmental entities, partners from Greater Mafraq Municipality, NGOs, UN agencies, and private sector. The workshop aimed at:

- Introducing the UPIMC Programme and its process, objectives, and intended deliverables, and relevance of the use of spatial data in decision making to the invited stakeholders.
- Providing an overview of the urban development situation and challenges related to the influx of refugees in and around Mafraq city.
- Identifying key locations and sectoral focuses that should be examined within the profile to be able to provide a contextually appropriate output that can be used by both the targeted municipality as well as humanitarian, development, and financing actors.
- Obtaining stakeholders' perspectives on institutional, regulatory, and financial challenges and opportunities that exist in relation to infrastructure investment and implementation within Mafraq city.
- Identifying key ongoing or planned urban development projects within Mafraq city.

During the workshop sessions, group discussions were held in which stakeholders worked collaboratively in identifying and mapping challenges within Mafraq city under five main discussion topics: Natural environment, Urban Environment, Major Projects, Refugee Integration, Vulnerable Areas, as well as, identifying key locations and sectoral focuses that should be examined within the profile.

It's worth noting that during the workshop, participants were asked to identify the most vulnerable neighbourhood in terms of strained infrastructure networks and basic services due to the influx of refugees at the city level. **Consensus was reached that Al-Hussein Neighbourhood stood as the most susceptible.** This

finding was taken into consideration while developing the city-level conclusion within this document and supported the selection of the pilot neighbourhood for the "Vision, Area Planning, and Action Plan" component.







01

NATIONAL CONTEXT

National and International Setting

The Hashemite Kingdom of Jordan, hereafter named Jordan, is located in the rocky desert of the northern Arabian Peninsula. Jordan is bound by Syria to the north, Iraq to the northeast, and Saudi Arabia to the east and south, and covers an area of 89,318 square kilometres.² It has a population of approximately 11.3 million (2022)³, which is heavily concentrated in and around the capital city of Amman. Approximately half of the urban population resides in the Amman-Russeifa-Zarqa agglomeration⁴, hosting most of the salaried works and enterprises. This results in major spatial inequalities in growth patterns and revenue distribution between the agglomeration and the rest of the country.

Jordan has long been known as an island of stability in a volatile region. Throughout its history, and since the start of the Syrian crisis, it has generously opened its doors to refugees in large numbers. Jordan has the second highest share of refugees per capita in the world, which is 89 refugees per 1,000 inhabitants.⁵

Urbanisation

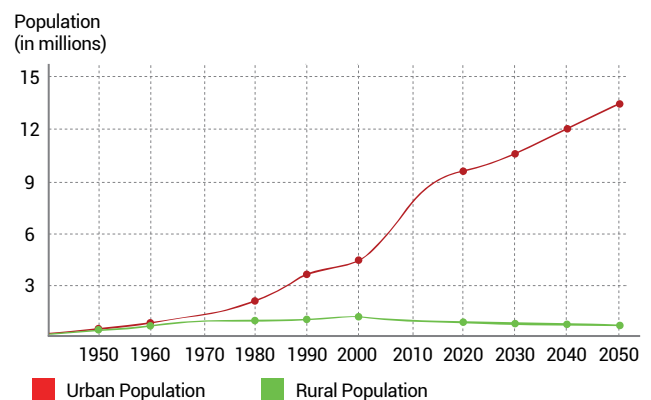
Jordan is one of the 50 most urbanised countries in the world.⁶ 90.3% of Jordan's population is living in urban areas.⁷ The country is characterized by rapid Urbanisation and urban growth, with a current annual population growth rate of 2.3% (2019) and population density of 127.3 person per square kilometre.⁸ Over the last two decades, Jordan's total built-up area has doubled, reaching 1,500 km²,⁹ with the urban built-up area amounting to 909 km².¹⁰ The spatial expansion of urban areas is equivalent to 1% per year, or 15 km²,¹¹ which poses a risk to agricultural land and the provision of infrastructure and its financing.

Almost three quarters of Jordan consists mainly of a barren plateau, which is located towards the east and the south-east of the country. The western and north-western part of the country is the most fertile and inhabitable, and is also the most urbanised, where the majority of the population lives. The southern governorates are under populated, hosting only 8% of the population.¹² They have a lower level of development in terms of availability of infrastructure, with the exception of Aqaba city. This is mostly due to the landscape, availability of resources, and overall climate.

As the majority of the urban population resides in the northern regions, the number of lower-income households are also higher there. The wealth distribution reveals that the northern governorates have the highest number of low-income households (29%), compared to the central (15%) and southern (23%) regions.¹³ The data also indicates that a majority of the population in Madaba (61%), Mafraq (75%), Jerash (59%), Ajloun (55%), Tafleeh (57%), and Ma'an (60%) fall in the lowest income quantiles.¹⁴

Urbanisation drivers

Within the context of Jordan, various factors have influenced the pace of Urbanisation. Urban sprawl and inefficient urban planning have led to inadequate distribution and access to services as well as infrastructure provision. As cities are the main economic drivers of the country's GDP, the majority of jobs are located in urban areas, encouraging rural-to-urban migration. Additionally, the continuous and rapid influx of refugees throughout the years as a result of the region's political instability, is a key factor that led to Jordan's rapid Urbanisation.



Change (actual and projected) in urban and rural populations between 1950 and 2050. Source: Department of Statistics Website

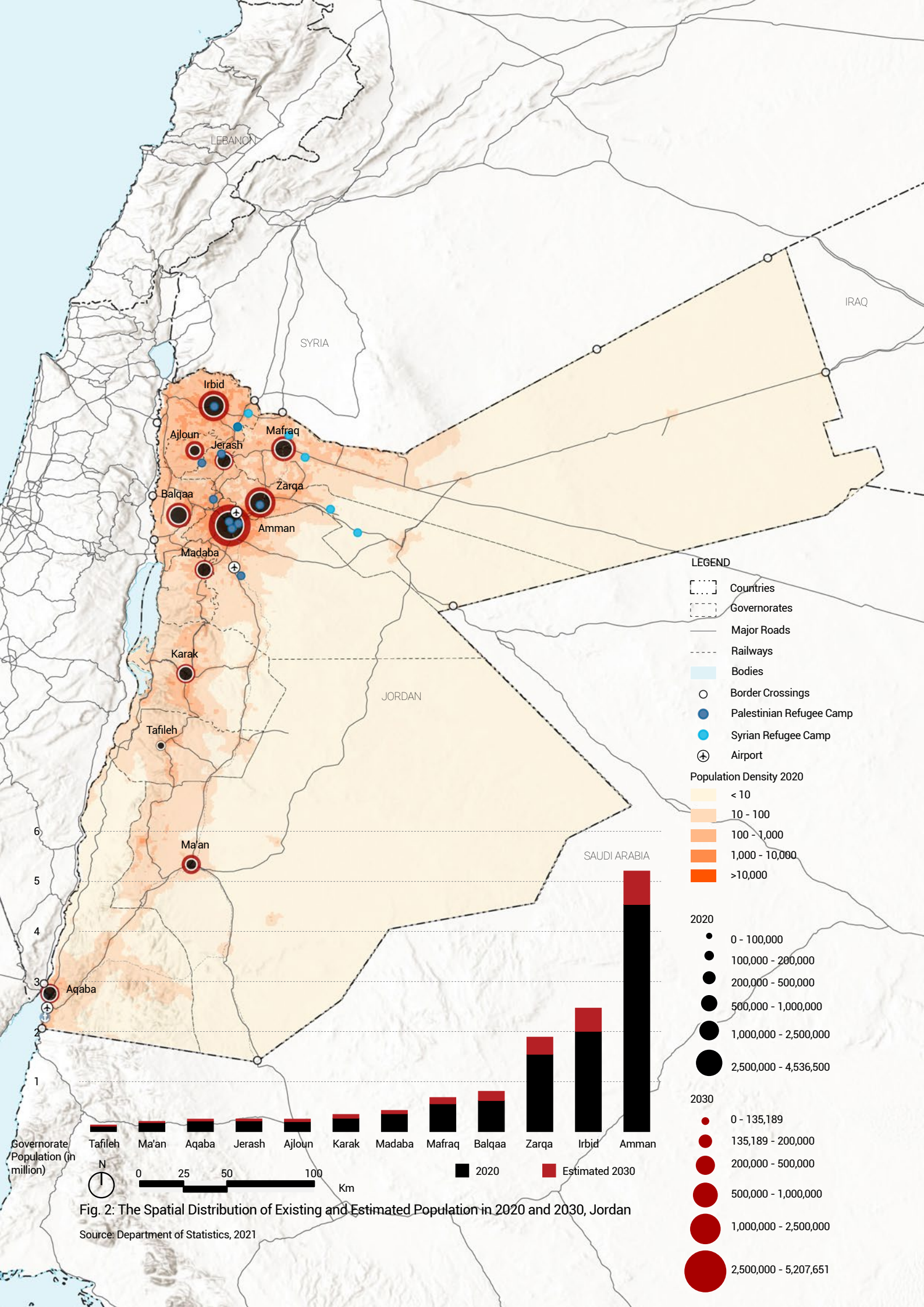


Fig. 2: The Spatial Distribution of Existing and Estimated Population in 2020 and 2030, Jordan

Source: Department of Statistics, 2021

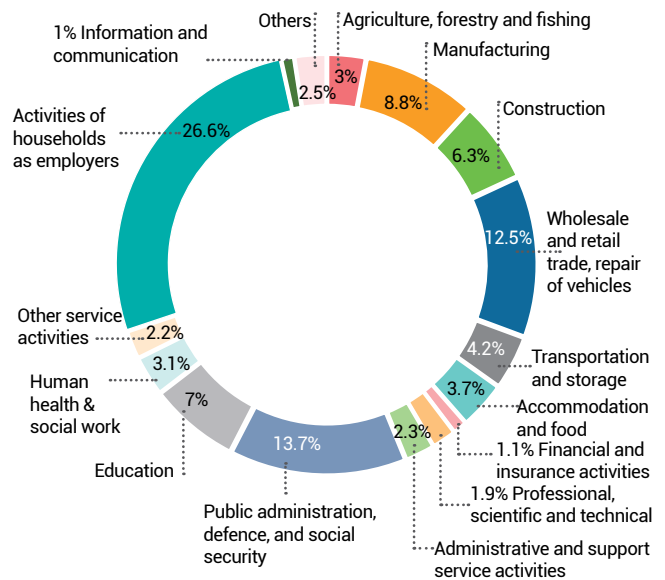
Demographics and Socio-Economic Background

Jordan's population nearly doubled between 2004 and 2015, coinciding with the political situations in Iraq and Syria. Jordan has one of the youngest populations in the world, with around 63% of its population under the age of 30.¹⁵ This requires long-term planning of resources to meet the future needs of the growing population.

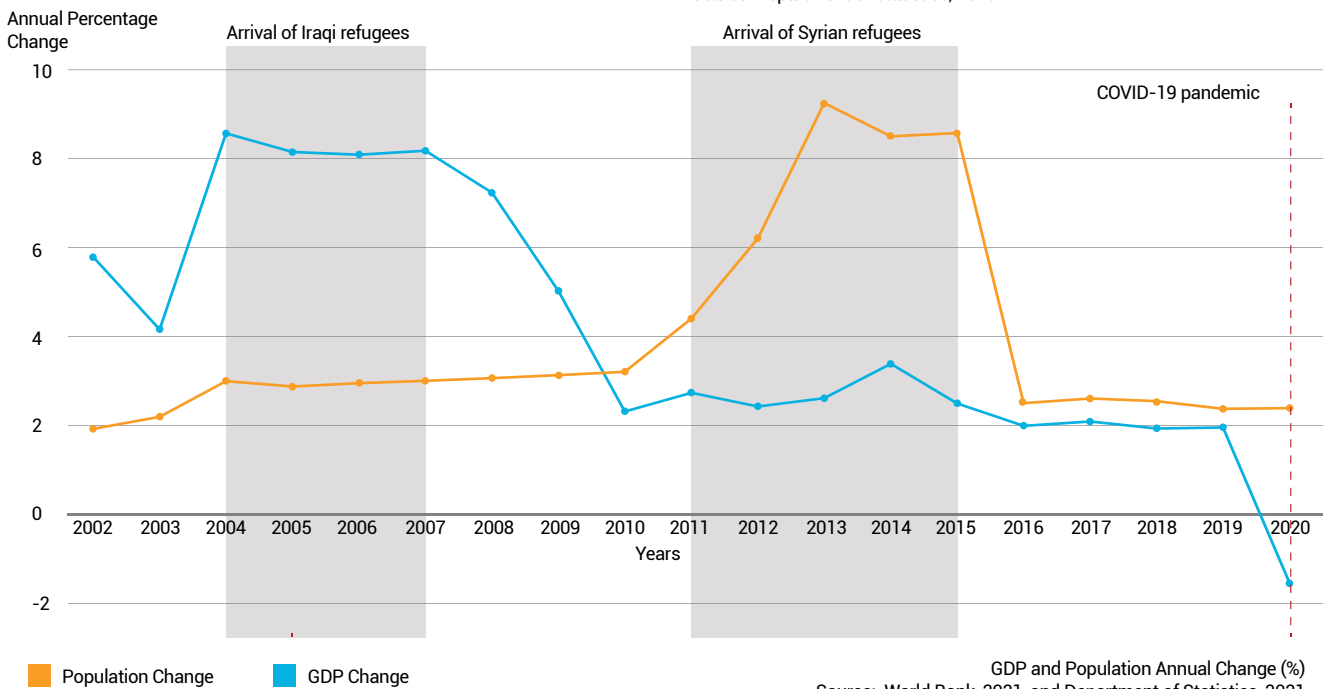
Despite the influx of several waves of refugees, Jordan has managed to keep a fair development growth rate over the past decade. Jordan has a GDP per capita (2021) of 2,905 Jordanian Dinar (USD 4,093.9)¹⁶ and an average growth rate of 4.06% per annum from 1993 until 2022.¹⁷ Annual remittances are estimated to reach USD 3.8 billion, which amounts to 10% of Jordan's GDP.¹⁸ The cumulative impact of the Syrian crisis – from both disruption to regional trade and the influx of refugees – is estimated at equivalent to 18% of GDP.¹⁹

In terms of employment, as of Q1 2023, 13.7% of the employed population work in the public sector, including public administration, social security and public defense. Moreover, 12.5% work in wholesale and retail trade, 8.8% in manufacturing, and 7% work in education. Jordan faces many economic challenges such as high unemployment rates and poverty. Unemployment rates amongst Jordanians reached 21.4% in the Q4 of 2023,²⁰ and have risen sharply over the years from 13% in 2015.²¹

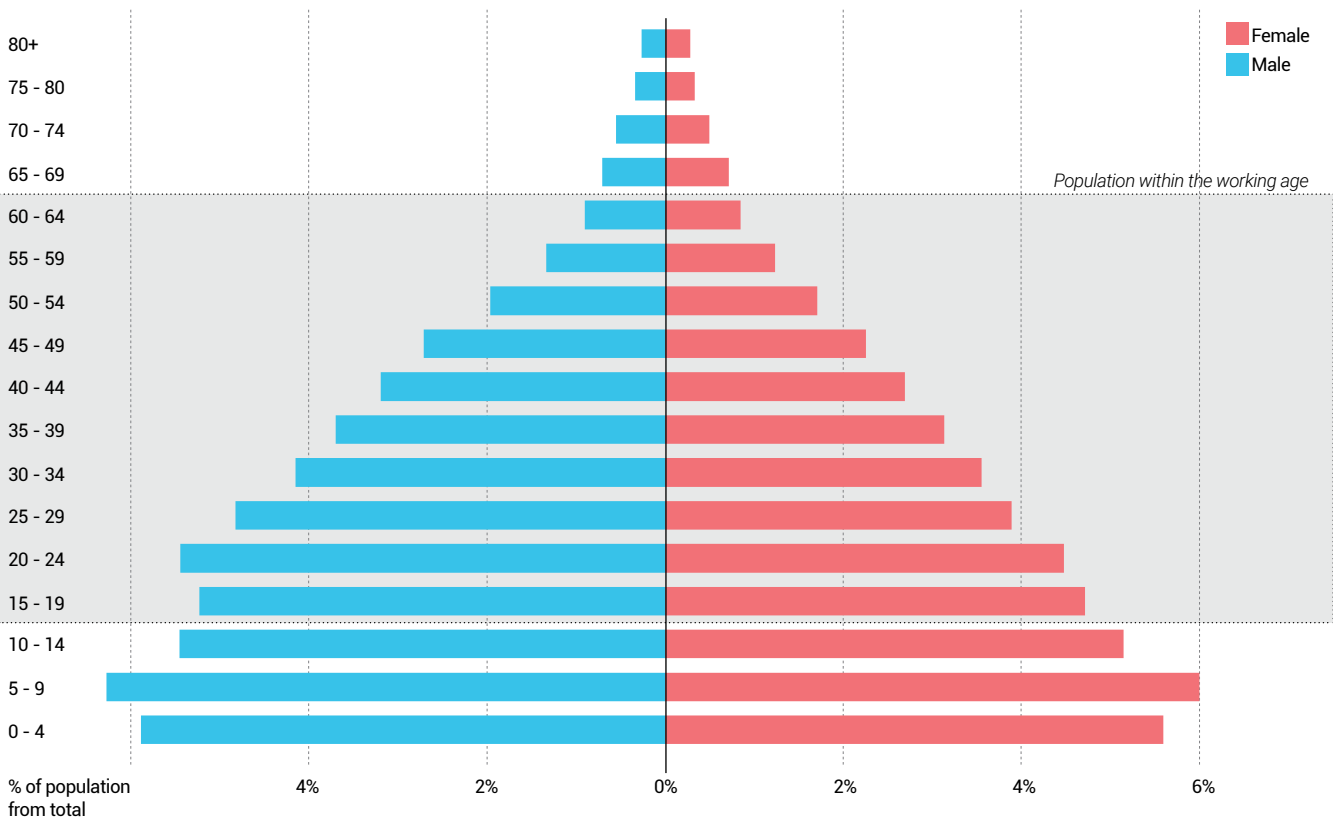
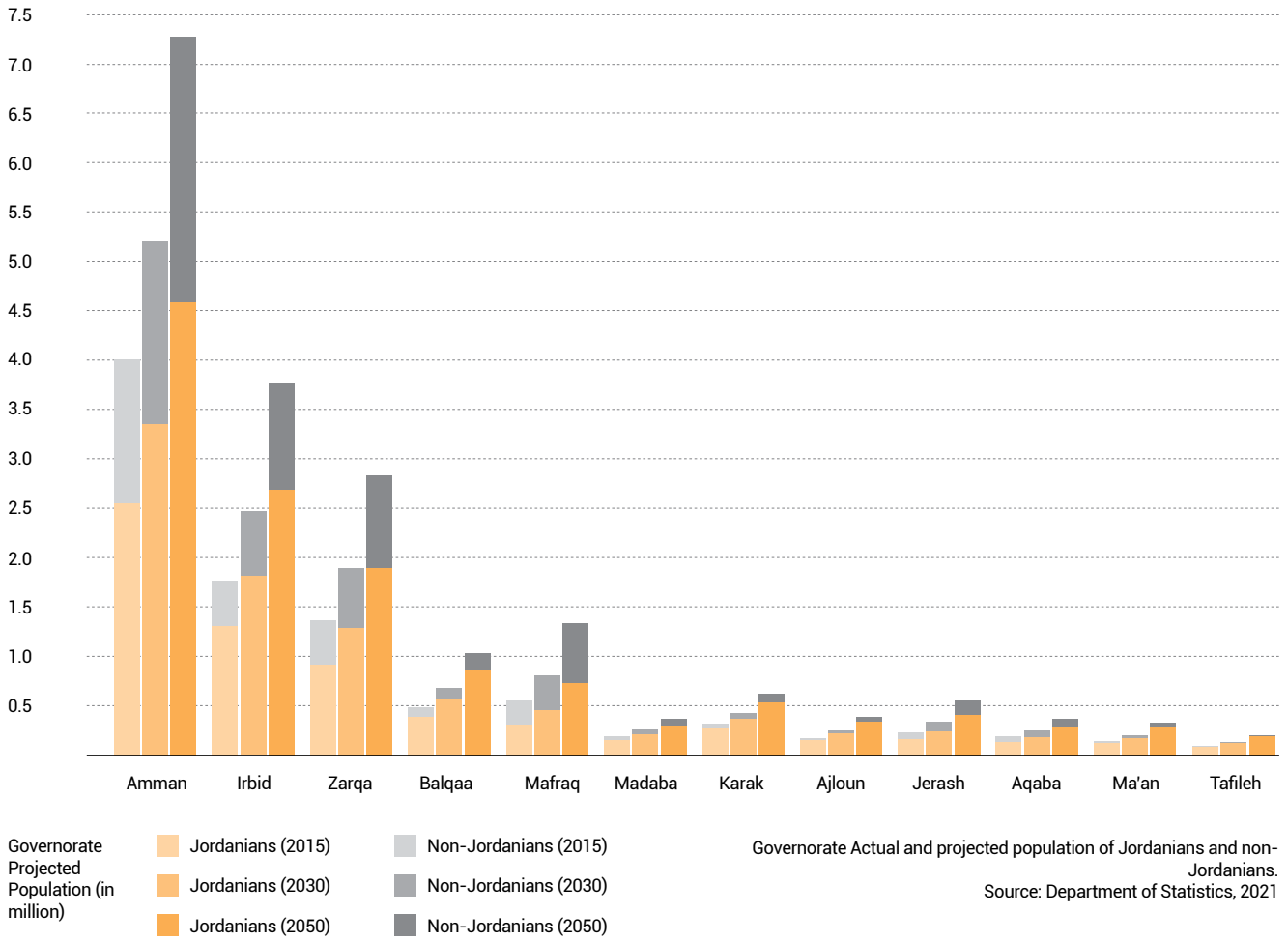
The rates increased to 46.1% among Jordanian youth aged 15-24 and 30.7% among Jordanian women.²² Despite high education attainment rates, young people in Jordan have low prospects for job opportunities. Furthermore, it is estimated that 14.4% of the population lives in poverty and another 18.6% are exposed to the risk of transient and seasonal poverty.²³ The poverty profile of Syrian refugees coincides with pre-existing stresses among the Jordanian poor.



Distribution of Employed Household Individuals by Economic Activity (%)
Source: Department of Statistics, 2023



GDP and Population Annual Change (%)
Source: World Bank, 2021, and Department of Statistics, 2021



Breakdown of Jordan's population by age groups, male and female.
Source: Department of Statistics, 2021

Refugees in Jordan

The word “refugee” is defined as a person who has left their origin country due to the risk of serious human rights’ violations and persecution.²⁴ Several waves of refugees have arrived seeking refuge in Jordan. However, within the Jordanian context, “refugees” are termed differently, depending on their nationalities

Jordan remains the second largest refugee host per capita worldwide with 89 refugees per 1,000 inhabitants.²⁵ Migration is profoundly associated with the history of Jordan whereby the various migration waves played a key role in shaping the country’s politics, economy, society, and urban characteristics. Since its independence in 1946, the Hashemite Kingdom of Jordan has been a safe haven to approximately 4 million refugees due to instability in neighbouring countries, including Circassian, Chechen, Armenian, Palestinians, Iraqis, Syrians, Yemeni, Sudanese, and Somali refugees. These refugees have become a significant and integral part of the Kingdom’s population and social fabric.

Circassian refugees began settling in Amman in 1878. They are credited with founding the modern city of Amman, which was abandoned during the 14th century.²⁶ Today, around 244,000 Circassian refugees live in Jordan.²⁷ Due to their assistance in the formation and development of modern Jordan, Circassian descendents are not legally considered refugees and are integrated within Jordanian communities.

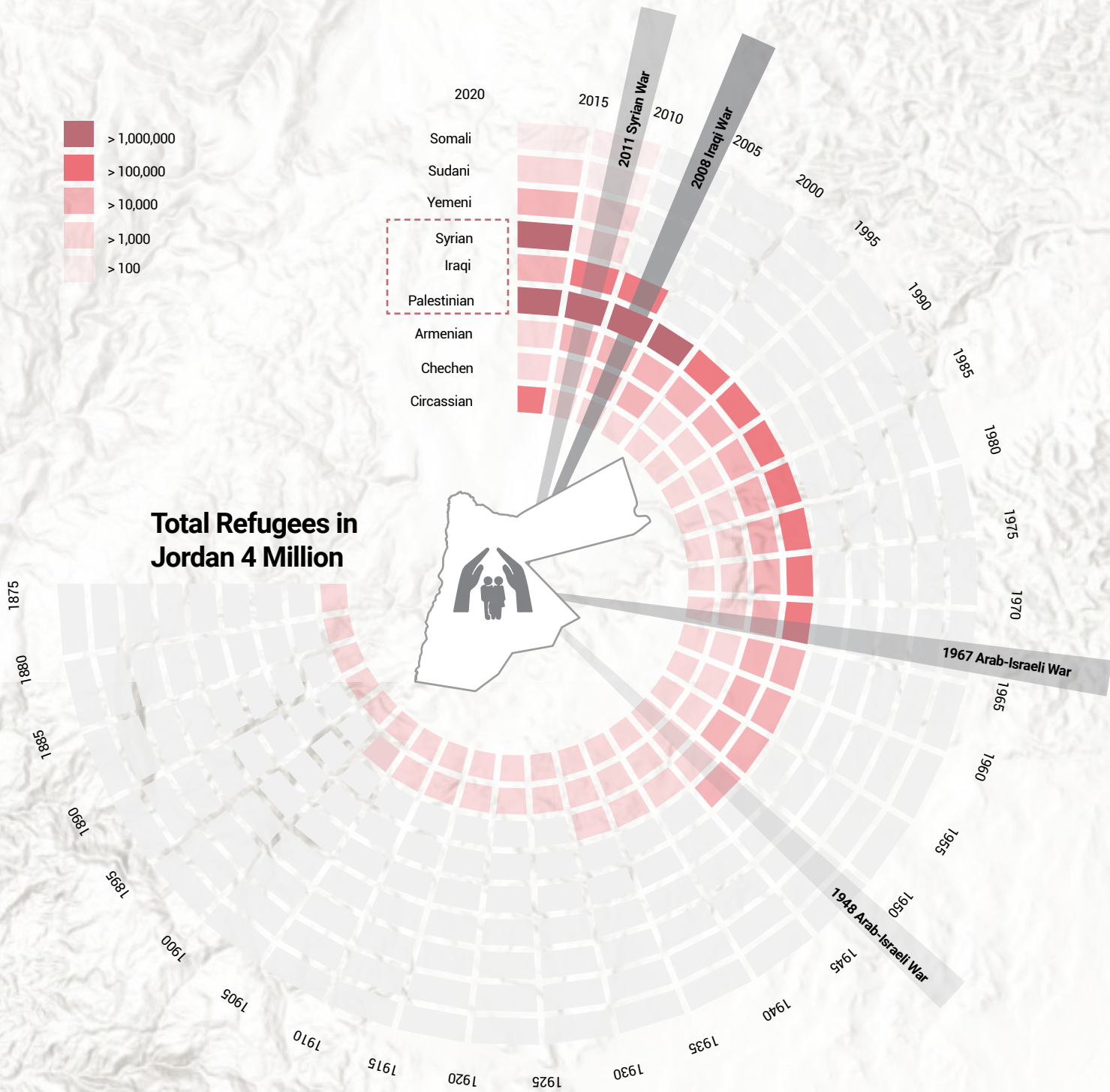
Additionally, Jordan is the first and largest host country for Palestinians in the world. The first refugee wave was during the first Arab-Israeli war in 1948 when 700,000 Palestinians fled to Jordan.²⁸ This was followed by a second wave during the second Arab-Israeli war in 1967, when approximately 300,000 Palestinians fled to Jordan from the West Bank.²⁹ During the Gulf crises in 1990-1991, an estimated one million people arrived to Jordan, including 300,000 Palestinians, who were involuntary returnees.³⁰ Palestinians, who fled the Arab-Israeli wars in 1948 and 1967 are considered refugees, even though most of them were granted the Jordanian citizenship. Today, there are 2,307,011 Palestinian refugees registered with UNRWA living in Jordan.³¹

Iraqis also sought refuge in Jordan during the Gulf war, whereby an estimated 30,000 were residing in the country.³² In the years following the invasion of Iraq in 2003, around 500,000 Iraqis sought refuge in Jordan. Iraqi migrants were referred to as ‘guests’ rather than refugees³³, referring to their higher living conditions and their preference to reside in urban areas, such as Amman, as opposed to inside refugee camps.³⁴ Furthermore, their socio-economic status also gave them the privilege of obtaining partial citizenship rights and purchasing residency permits, which accordingly eased their access to job opportunities and services.³⁵ Since 2008, the Iraqi influx has boosted the Jordanian economy due to the many investments brought in by the Iraqis at that time. Today, around 70,000 Iraqis live in Jordan.³⁶

Furthermore, Syrians who arrived in Jordan after the Syrian conflict make up the largest portion of refugees in the Kingdom, after the Palestinians. They prefer to call themselves migrants or guests, or just “Syrian” or “from Hama”.³⁷ However, the term under which Syrians are registered by the UNCHR is “Persons of concern”.³⁸ Syrians came to Jordan while it was already suffering from several urban challenges and put further pressure on the country’s very limited resources.³⁹ Jordan hosts around 670,000 registered Syrians today, most living among Jordanian communities rather than in camps. Official figures estimate that there are 1.4 million Syrians in Jordan, which accounts for more than 10% of the Jordanian population, placing immense pressure on the country’s over-stretched resources during one of the most difficult economic periods in its history.⁴⁰

According to the UNHCR, 34,000 of the registered Syrian refugees have returned home from Jordan since 2018⁴¹ and 30,000 in 2019. Refugees in Jordan cite security, safety, and lack of work opportunities and services as the main reasons hindering their return to their countries of origin.⁴²

Moreover, the Kingdom additionally hosts small percentages of Chechen, Armenian, Sudanese, Somali, and Yemeni refugees. Accordingly, the profile will primarily consider Palestinian, Iraqi, and Syrian refugees, as they constitute the highest presence in Jordan and have the highest impact on the host municipalities’ infrastructure.



Total Refugees in Jordan 4 Million

2.3 M

Palestinian Refugees in Jordan

96% of the Palestinian refugees residing outside camps and 85% of those living inside camps hold the Jordanian citizenship⁴³.

1.4 M

Syrian Refugees in Jordan

670,000 registered Syrian refugees & the total number of Syrians count up to 1.4M⁴⁴.

244 K

Circassian Refugees⁴⁵

67000

Iraqi Refugees⁴⁶

13000

Yemeni Refugees⁵¹

10000

Armenian Refugees⁴⁷

6000

Sudani Refugees⁴⁸

5000

Chechen Refugees⁴⁹

>1000

Somali Refugees⁵⁰

Fig. 3: Jordan Refugee Time-line

Cross-Border Displacement Dynamics

There are 16 refugee camps in Jordan, 13 for Palestinians and 3 for Syrians. However, only 20% of the refugee population reside in camps, and the majority live in urban areas; 29% live in Amman and 20.8% live in Irbid.⁵² The location of the refugees is typically based on their socio-economic abilities and the economic sectors they are involved in.

Palestinian refugees are under the mandate of the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA). Transitional camps were established to host the Palestinian refugees temporarily, where currently only 18% live in recognized Palestinian refugee camps across the country.⁵³

At the start of the ongoing conflict in Syria, large populations fled the war to neighbouring countries, particularly Jordan, Turkey and Iraq. An open-door policy was adopted in Jordan to welcome Syrian refugees in both camps and urban settings hosted in urban areas mainly Amman, Mafrq, Irbid, and Zarqa due to the proximity of shared borders, economic opportunities and provision of infrastructure. Syrian refugees are under the mandate of the United Nations High Commissioner for Refugees (UNHCR).

The flow of refugees from camps to urban areas had an adverse impact on the capacity of infrastructure and public facilities, such as education, health, public space, among others. It has also increased strain on natural resources, and in particular water, which is already quite scarce in Jordan. This is already noticed in cities such as Mafrq and Irbid. With Jordan's economy being highly dependent on international development aid, the refugee crisis has placed strain on the Jordanian government.

Despite Jordan not being a signatory of the 1951 Convention relating to the Status of refugees, protection of refugees and asylum-seekers is considered favourable. Response policies by the government such as the JRP and the Compact aim to meet the immediate needs of Syrian refugees living both in camps and urban areas, as well as host community impacted by the crisis.

The map reveals that Jordan's population is highly concentrated in its northern governorates, specifically in Amman, Irbid, Zarqa, and Mafrq. Simultaneously, urban refugee counts are the highest in the aforementioned governorates. The continuous influxes of refugees into these urban settlements continue to exacerbate the pressure on infrastructure services.

In Amman, around 69% of Syrian refugee households receive wage income, while only 3% receive self-employment income. 11% of households also receive private transfer, which comprises support from relatives and friends both inside and outside of Jordan. The majority of households receive institutional transfer income; in Amman, around 79% of households receive an institutional transfer from various sources, including: Cash or in-kind assistance from UNHCR or other UN agency, National Aid Fund, NGO or charities.⁵⁴

Governorate	Wage income (%)	Self-employment income (%)	Private transfer (%)	Institutional transfer (%)
Amman	69	3	11	79
Irbid	57	5	27	91
Zarqa	52	5	27	91
Mafrq	52	4	14	92
Other gov.	58	1	13	79
Camps	65	3	9	100
All	61	3	14	90

Table 1: Percentage of Syrian refugee households by forms of income. Source: FAFO & MOPIC/The Living Conditions of Syrian Refugees in Jordan 2017-2018.

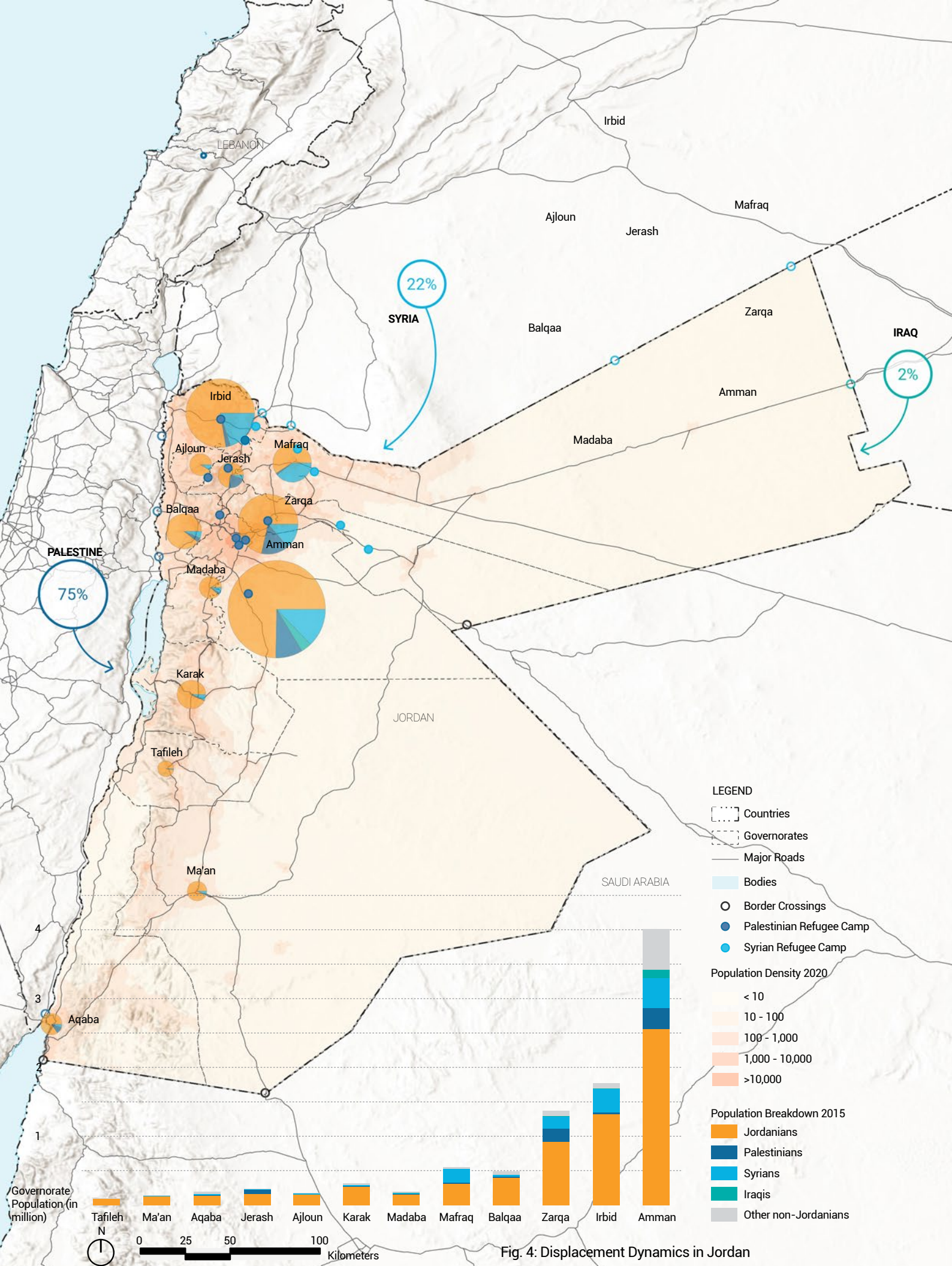


Fig. 4: Displacement Dynamics in Jordan
Source: DOS, 2015

Climate Risks

Jordan ranked 74 out of 185 in the NDGAIN index for climate vulnerability.⁵⁵ Although it is not a significant contributor to climate change, Jordan is one of the countries most affected by it. It has begun to suffer from its negative effects, including increasing temperatures, erratic rainfall, declines in available (underground and surface), and an increased likelihood of heatwaves, flash floods, droughts and landslides.⁵⁶

With very limited sources of water, Jordan is the second most scarce country in the world, with annual renewable resources being less than 100 m³ per person.⁵⁷ It is heavily reliant on resources outside its borders, which has led to tensions with neighbouring countries. The scarcity is further compounded by the large influx of refugees, which has increased Jordan's struggle to meet domestic needs.

Since 1960, the country has witnessed a rise in annual maximum temperatures of 0.3°–1.8°C and rise in annual minimum temperature of 0.4°–2.8°C across all regions.⁵⁸ There has been an increase in the average number of heatwaves across the country and consecutive dry days nationwide. A decline in annual precipitation by 5-20% was witnessed across the country.⁵⁹ The flash floods that took place in the south of Jordan in 2018 killed 12 people in Petra,⁶⁰ and 21 people in the Dead Sea area.⁶¹ The country is expected to experience a 15-60% decrease in precipitation and 1-4 centigrade increase in temperature between 2011 and 2099, which will have serious impacts on natural ecosystems, river basins, watershed and biodiversity.⁶² This will, in turn, impact food productivity, resources, health, infrastructure, and urban areas.

Jordan's first National Policy on Climate Change was adopted in January 2013, aiming to strengthen Jordan's capacity to respond to the impacts of climate change and solidify Jordan's global stewardship in emission reduction; build the adaptive capacity of communities and institutions; and ensure that the interests of vulnerable groups are adequately addressed in mitigation and adaptation policies and strategies.⁶³ This policy was updated in 2022, based on lessons learned from the implementation of the first policy. Jordan has ratified various climate change agreements and protocols, including the Paris Agreement (ratified November 2016), and the Kyoto Protocol (January 2003).⁶⁴

Inhabitants of Jordan are vulnerable to natural hazards due to limited proactive approach to disaster prevention and mitigation, insufficient institutional capacities at the national and local levels, limited trained human resources, lack of awareness amongst senior officials and communities about disaster preparedness, and unsatisfactory implementation of existing policies.⁶⁵ The National Disaster Risk Reduction Strategy aims to strengthen the DRR sector in Jordan.

As for climate mitigation, the potential for mitigation is large, even though Jordan's total greenhouse gas (GHG) emissions are very small; the total GHG emissions from the energy sector, transport and industrial energy activities were 85.5% of the total GHG emissions of Jordan.⁶⁶

There is a need to strengthen the promotion of renewable energy and energy efficiency in Jordan, which will have a large impact on the reduction of GHG emissions in the country and increase mitigation.⁶⁷ To do so, there needs to be a political and legal framework for renewable energy and energy efficiency, as well as a need for strengthening the implementation and enforcement of existing regulations, such as green building codes.⁶⁸

With the transport sector being one of the highest contributors to GHG emissions, strategies need to be developed to promote energy efficiency and low carbon transportation modes. Climate change perspectives should also be integrated in solid waste and wastepolicies, strategies and action plans. Access to national and international financing for low carbon energy and environmental technology should be enhanced, as well as promote technology transfer of mitigation in Jordan.⁶⁹

As Jordan's urban footprint is increasing, the land available for agriculture is declining.⁷⁰ 41% of Jordan's total land area is characterized as degraded due to overgrazing, unsustainable agricultural and management, and over-exploitation of vegetative cover. In order to increase climate change mitigation, it is vital to improve forest and range land management to increase the capacity to store GHG.⁷¹

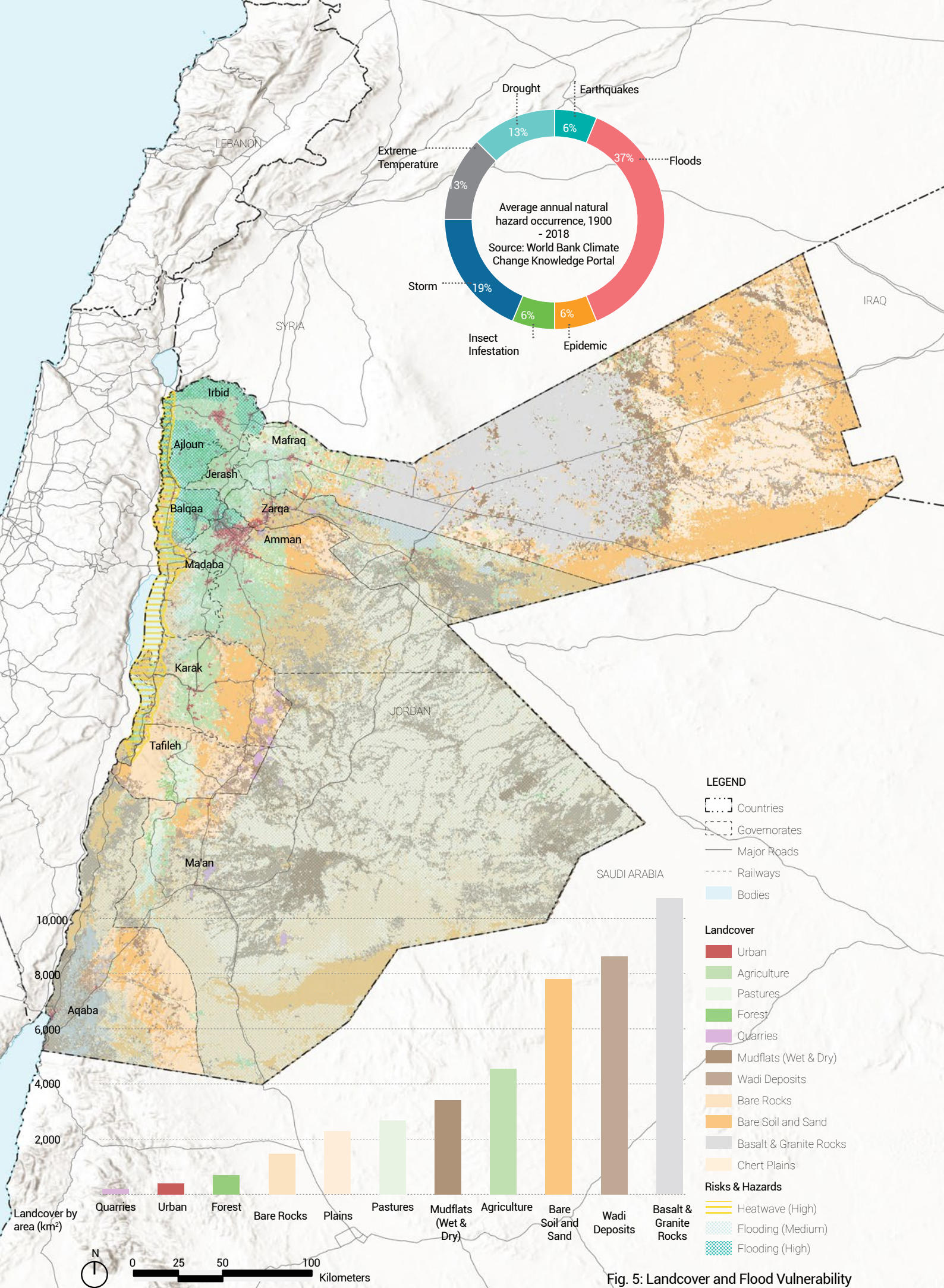


Fig. 5: Landcover and Flood Vulnerability

Governance & Administration Structure

Jordan is transitioning from a highly centralized to a progressively de-concentrated system with more powers vested at the governorate and municipal levels.⁷² Jordan is divided into twelve governorates (muhafazat),⁷³ which have gone through various iterations since 1975, when they were only 5. Each governorate is headed by a governor, who is appointed by the king, and directly reports to the Ministry of Interior (MoI).⁷⁴ The governor is the sole authority for all government departments and development projects in their respective areas. The governor acts, together with the decentralized directorates of ministries, as an extension of the central government.⁷⁵

The Local Administration Law No. 22 of the year 2021 was introduced to integrate the provisions of Municipalities Law No. 41 of the year 2015 and the Decentralization Law No. 49 of the year 2015, unifying the governance system at the local level under one umbrella, thereby contributing to enhancing accountability and transparency. It aims to reduce the gap between decision-making and the residents of the governorate, ensuring that decisions are made in an informed, specific, and responsive manner to the needs of the local community. Local administration is structured in the 12 governorates through an institutional framework comprising 104 municipalities. All municipalities possess legal personality and enjoy all their rights within their boundaries, with legal and financial independence. They are overseen by the Ministry of Local Administration, except for the Greater Amman Municipality, the Petra Development and Tourism Region Authority, the Aqaba Special Economic Zone Authority, and the Jordan Valley Authority.⁷⁶ As a result of this Law, three types of councils were created, collectively forming Jordan's system of decentralization: the municipal council at the municipal level, the executive council, and governorate council at governorate level. The Governorate Council consists of members, both male and female, who are elected directly through secret balloting, as well as members who are indirectly appointed. The exception to this is the councils of Aqaba and Ma'an governorates, which consist of members elected through direct secret balloting and members appointed. The elected and appointed members, collectively, must not exceed 40% of the total council members. The Municipal Council is composed of a president and members, both male and female, who are elected directly through secret balloting, with their number determined by a decision of the Minister of Local Administration. Additionally, the municipal area can be divided into electoral districts, and the number of members in each district is determined by the Minister of Local Administration. Through these elected councils, there will be stronger accountability and transparency, as well as an improvement in service delivery and increased community participation. It's worth noting that the law allocates a minimum

of 25% of the council seats to women in both elected councils. Furthermore, a separate law was issued for the Greater Amman Municipality in the same year (2021).⁷⁷

The central level is responsible for providing all basic public services including water, gas, sewerage, electricity, education, and healthcare, and the local municipalities play a limited role in the service provision due to their limited political power and financial resources, in addition to the limited capacity of municipalities to support local economic development. This local administrative structure overlaps with other institutions that exist at the sub-national level, such as governorates, ministry offices and initiatives such as Local Development Units, which are responsible for socio-economic development in municipalities and governorates. The overlap in mandates requires continuous coordination and results in duplicity of efforts.

Several entities are involved in planning. MoLA is responsible for the definition of zoning and building regulations and the preparation of master plans for all municipalities.⁷⁸ The Higher Planning Council within MoLA has the authority of temporary approval of the master plans either totally or partially and approves all zoning modifications in the country.⁷⁹ According to Local Administration Law No. 22 of the year 2021, municipalities are responsible for urban and rural planning. The Ministry of Planning and International Cooperation (MoPIC) is responsible for formulating policies and procedures that enhance and develop relations with donors and international financing institutions, providing and managing necessary funding for development projects, and working as a liaison between donors and international financing institutions and the government institutions.⁸⁰ While the Ministry of Public Works and Housing (MoPWH) gives direction to all infrastructure policies in the country, as it is responsible for provision of roads, railways, airports and port infrastructures. Through the Housing and Urban Development Corporation (HUDC), the ministry gives direction to housing policies, which is in charge of monitoring housing dynamics, down-zoning and preparation of served land to be sold to developers.

It can be noted that there is a multiplicity in urban planning institutions and actors, leading to weak coordination and overlap in responsibilities. The lack of national, planning and regional documents hinders the process of prioritizing projects based on guiding documents.⁸¹

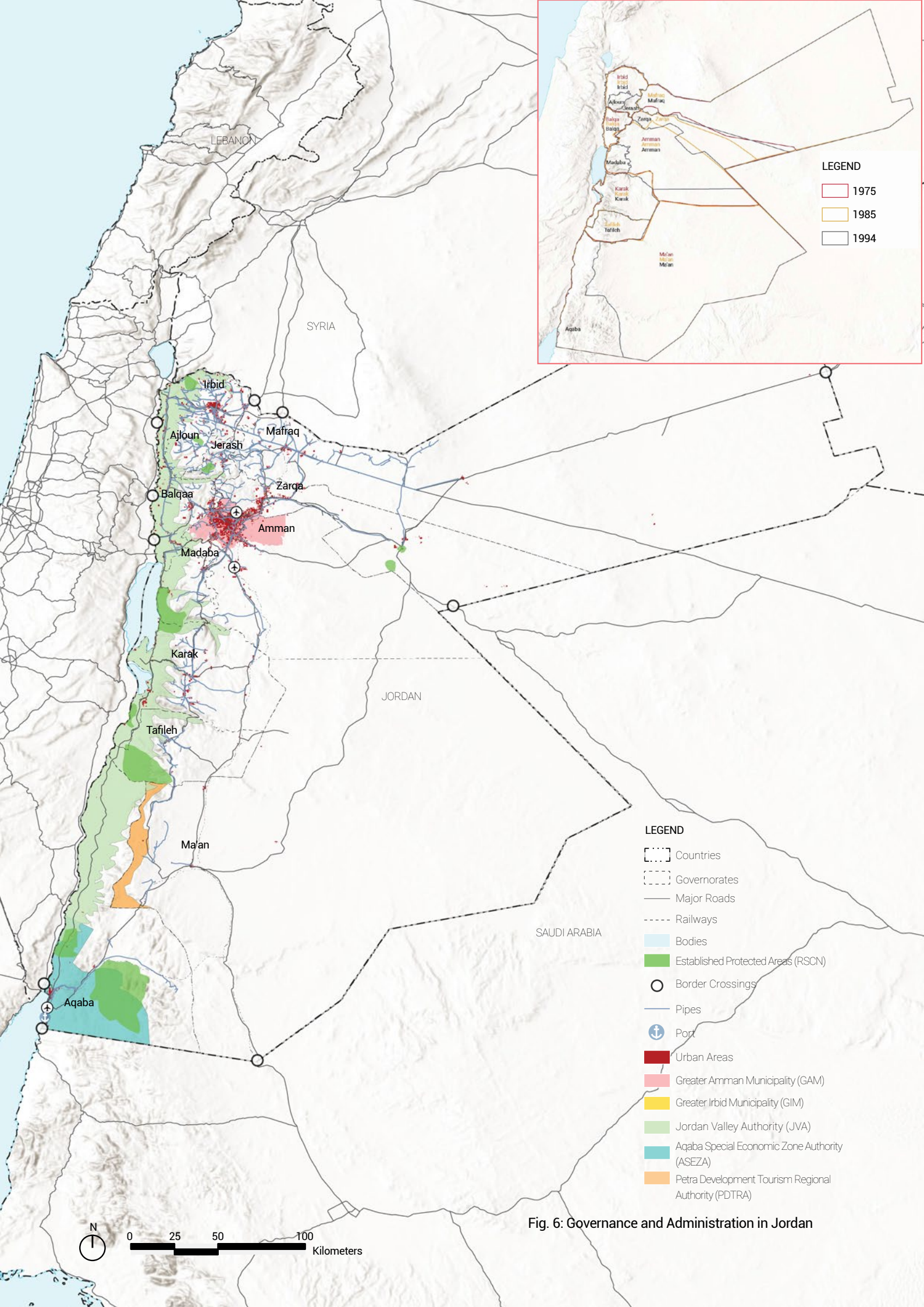
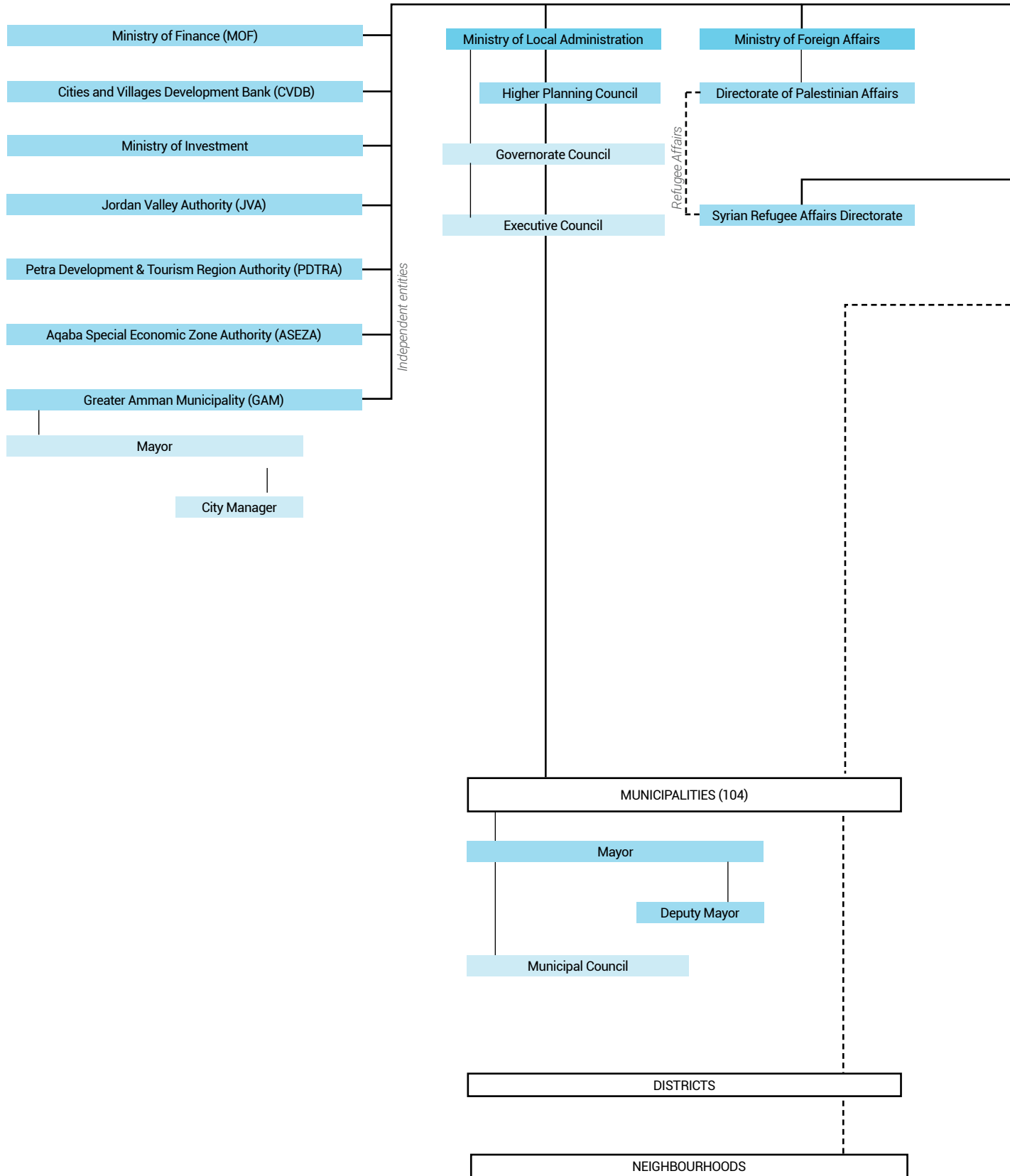
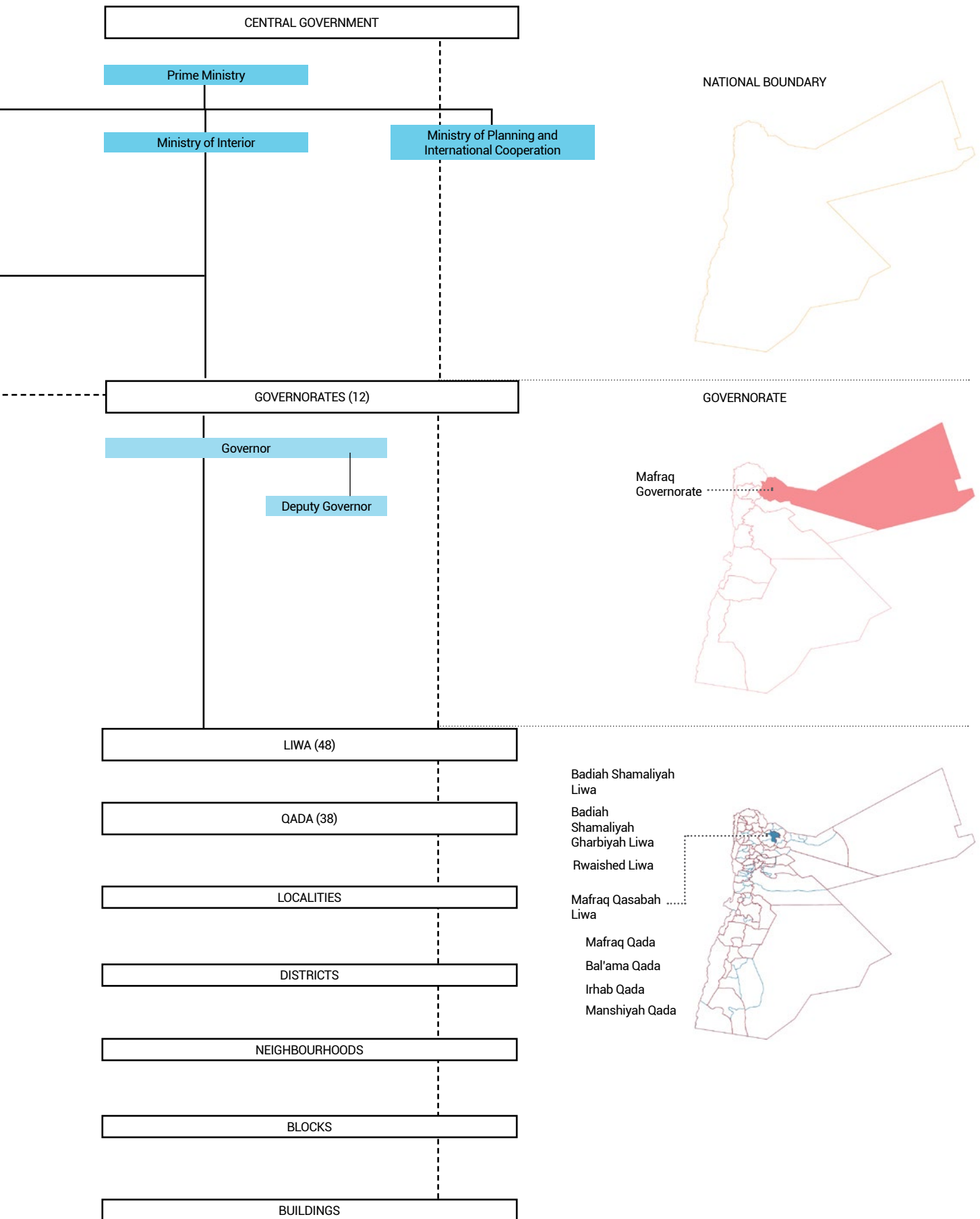


Fig. 6: Governance and Administration in Jordan





National Planning Context

Historical Background

Until 1946, Jordan, in its planning efforts, relied on assistance from the gulf states and private sector investment.⁸² The high rate of population growth and the economic expansion caused rapidly expanding urban areas and demanded immediate integration of economic and physical planning at all levels, including national, regional, and local levels, which the government of Jordan was aware of.⁸³ Therefore, the government started to practice planning through a series of development plans. The Higher Planning Council was considered as the main planning unit in Jordan between 1972 and 1984, until it gained cabinet status as the Ministry of Planning.⁸⁴

Planning in Jordan initially started as a coordination exercise among activities controlled by the cabinet members. Jordan's early plans addressed mainly economic growth and provision of public service facilities.⁸⁵ The first attempt to apply contemporary physical development planning was for Amman in 1938 when then the British Mayor proposed a land use plan for the city, followed by a development plan in 1963.⁸⁶ Today, planning has taken a reactive approach to urban challenges as opposed to a proactive approach.

Planning Levels

As for laws related to planning, the only related law in Jordan is the "Law of Planning of Cities, Villages, and Buildings, No. 79" that was established in 1966. It is based on the town planning ordinance of the British Palestine Mandate, which had its origins from the 1932 British Town Planning Act.⁸⁷ This law remains temporary, however it is currently being updated in collaboration with MoLA the USAID.

At national level, MoPIC is responsible for national planning, which does not encompass physical or spatial planning. Jordan's planning system lacks a national urban policy that guides the development of all subsequent plans. UN-Habitat, in collaboration with MoLA, is currently working on formalizing a national urban policy for Jordan.

There are three levels of plans in Jordan: regional plans, structural plans and detailed plans. In terms of responsibility, regional and structural plans require the approval of the Higher Planning Council, detailed plans require the approval of municipal councils or local committees of the municipal areas. In practice, however,

detailed plans are also under the jurisdiction of the Higher Planning Council. This limits the ability of the council to address planning at national level.

There is a lack of integrated planning at the regional level and within governorates. The plans currently developed at regional level today are structural plans, covering only a few regions/governorates. This is often self-driven as none of the national level stakeholders are mandated to review or support this level of planning.

At local level, various levels of plans exist based on the level of details. Structural plans and detailed plans both include planned and unplanned areas, roads (widths, upgrading, proposed), land use, sewerage and networks, prohibited areas, areas allocated for public use and building regulations. However, they vary in scale. Detailed plans also include: commercial activities, parks, restricted or special uses, detailed building regulations and an acquisition plan for transportation network extension.

Zoning Plans (Al-Tantheem) were established by the Cities, Villages and Buildings Planning Law of 1966. This usually refers to zoned areas within municipal zoning map, and are updated periodically. As for Subdivision Plans (Al-Taqseem), which were established by Al-Taqseem Law of 1968, they are applied on a per-basin basis. Typically, one-third of Al-Taqseem land will be designated for public purposes (roads, social facilities, parks). Zoning is not a pre-requisite for approval, and Al-Taqseem can be applied to areas that have existing zoning or to areas without zoning.

It is worth noting that the master planning efforts require monitoring to ensure execution, as there is a disparity between the theoretical documents and on-the-ground implementation. The section below displays some of the existing key plans, policies, and strategies in Jordan.

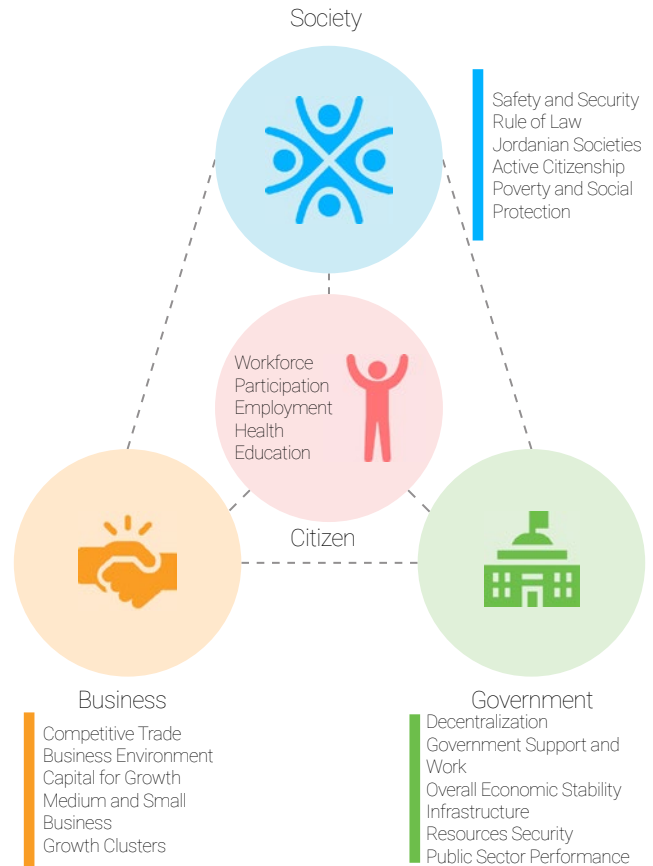
Key Plans, Policies and Strategies

There are several plans, policies and strategies that shape the development of Jordan. Additionally, various documents exist at national level that focus on addressing the needs of the refugees and host communities.

Jordan 2025³⁸

Jordan 2025 is the main strategy guiding the national vision based on sustainability, institutionalization, excellence, competitiveness and meritocracy. It is founded on the identification of goals that the Jordanian government aspires to achieve through the adoption of procedures and policies at sectoral level, which includes:

- Economic growth, fiscal stability, reduction of financial waste and public debt to safe levels;
- Foreign investment by enhancing and increasing business and investment competitiveness;
- Development of economic sectors through market creativity and honing the tools and means of high-value-added export-oriented sectors;
- Encouragement of small and medium-sized businesses;
- Enhancement of the policies governing the labour market;
- An increment of women’s participation in the labour market; and,
- Giving necessary attention to people with special needs.



Jordan 2025 Pillars

	Planning	Socio-economic	Humanitarian
National	Law of Planning Cities, Towns Villages and Buildings No. 79 for the year 1966	Jordan 2025	National Resilience Plan & 3RP
	Natural Disaster Risk Reduction Strategy	Jordan Economic Growth Plan	The Jordan Compact & CGM
	National Strategy 2023-2040	Economic Modernisation Vision	
	National Climate Change Policy 2022-2050	National Green Growth Plan	
		National Food Security Strategy 2021-2030	
	Jordan Response Plan 2024-2026 (Under Development)		
	Jordan National Urban Policy (In Approval Process)		
Regional	Mafraq Governorate Development Plan 2013-2016 (2023-2027 is Under Development)		
	Strategic & Local Economic Development Plans for Municipalities within Mafraq Governorate 2020-2025	Local Economic Development Strategy for Mafraq Governorate 2016-2018	
City	GMM Strategic Plan 2020-2025		
	Local Development Plan for GMM 2024-2028		
	Local Plan for Municipal SWM		
	GMM Crisis & Risk Management Plan 2023/2024		

Key plans, policies and strategies at national, regional, and city levels

Economic Modernization Vision⁸⁹

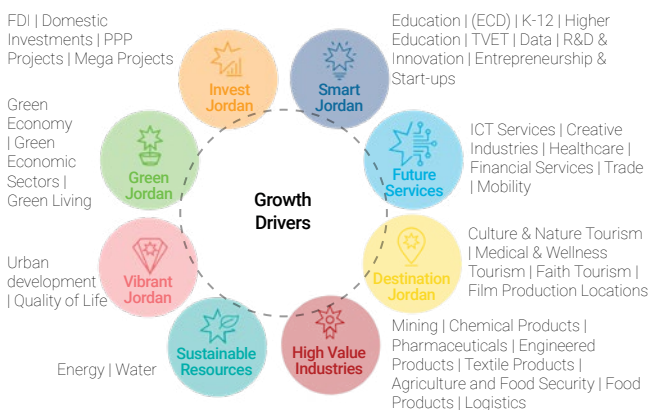
The Economic Modernisation Vision of Jordan aims to create a better future for the Kingdom, focusing on maximizing economic potential and enhancing the well-being of its citizens. This vision is built upon two strategic pillars:

- Accelerated growth through unleashing Jordan’s full economic potential.
- Improved quality of life for all citizens, while sustainability is a cornerstone of this future vision.

The vision is a result of-- and reflects-- the collective and constructive collaboration among over 500 experts and stakeholders from various sectors and institutions, who engaged in several months of discussions. They collectively established a starting point, identified Jordan’s strengths and competitive advantages, diagnosed existing challenges hindering growth and development, and drew lessons from previous visions and plans, all contributing to the formulation of this new vision.



Economic Modernisation Vision's Two Main Pillars



Growth Drivers to Implement the Economic Modernisation Vision

The vision will be implemented through eight economic growth drivers, encompassing 35 main sectors and sub-sectors, and including over 360 initiatives. Each initiative is carefully outlined in initiative cards, specifying objectives, timelines for implementation, key performance indicators, and the responsible implementation stakeholders. A roadmap has been developed for quick actions in the remaining period of 2022, while subsequent actions beyond 2022 are categorized into short-term, medium-term, and long-term segments. These will provide a framework for the Government to develop detailed action plans for execution.

Transparency, strategic thinking, accountability, and continuous monitoring are central to this vision. It aims to identify comparative and competitive advantages, support strategic goals, enhance evidence-based decision-making and policy development, strengthen implementation capacity, and offer a roadmap for political parties to engage with constructively.

The National Food Security Strategy 2021-2030⁹⁰

Under the directives of His Majesty King Abdullah II, who referred to food security as “the biggest challenge in 2021,” the National Food Security Strategy of Jordan for 2021-2030 aims to address the complex challenges and opportunities of food security in Jordan, taking into consideration the evolving global and regional factors impacting the Kingdom’s food system. The strategy promotes the establishment of Jordan as a pivotal regional hub for food security, supporting storage and logistics, agricultural production, food processing, irrigation systems, greenhouses, advanced technology, knowledge exchange, and emergency assistance to neighbouring countries in the region.

This strategy is based on an economic, social, and environmental analysis, alongside an evaluation of the food and nutritional situation of the population. Additionally, the strategy examines the production, import, export, and self-sufficiency levels of essential food commodities in Jordan.

Within the strategy, there is an identification of the key challenges and issues that need to be addressed to enhance food security in Jordan. It outlines a

vision, strategic objectives, sub-objectives, and the corresponding programs to achieve them. Furthermore, the strategy defines the expected outcomes and indicators for each program to measure progress and assess its impact, as well as an implementation plan that outlines a detailed work plan, budget allocation, the management and monitoring mechanisms, funding sources, and the requirements for successfully implementing the strategy.

National Water Strategy 2023-2040⁹¹

The National Water Strategy 2023-2040 for Jordan outlines a comprehensive approach to collaboratively ensure lasting water security in Jordan, for health, prosperity, and growth, addressing challenges stemming from water scarcity, population growth, climate change, and other challenges. It outlines the vision, goals, and approaches for the water sector in Jordan.

The strategy presents 10 strategic areas within the sector, including achieving a sustainable balance between supply and demand; integrated resources management and environmental protection; utility management and services; irrigated agriculture; financial sustainability; sector governance and institutional development; energy efficiency and renewable energy; innovation, technology, and private sector engagement; water-energy-food-environment nexus; and climate change resilience. It outlines four pillar goals which serve as the guiding principles and must be achieved to deliver security and sustainable services. The pillar goals are as follows:

- Pillar Goal 1: Reform the legal and institutional framework to modernize the sector, clarify roles and responsibilities, enhance accountability, and increase public trust.
- Pillar Goal 2: Restore balance between available and sustainable supplies and demand to sufficiently meet Jordan's health and economic development needs to achieve lasting security.
- Pillar Goal 3: Achieve financial sustainability for sector operations through the balance of full cost recovery and continued government support in critical infrastructure investment and pro-poor protections for security.
- Pillar Goal 4: Ensure impartial and transparent regulation of sector services and costs.

Each goal has specific objectives, indicators, and targets to establish measurable milestones. This aims to guarantee accountability, ensuring that both sector entities and national government institutions are responsible for enhancing resource management, protection, and sustainability while providing secure and dependable services.

National Climate Change Policy of the Hashemite Kingdom of Jordan 2022-2050⁹²

The National Climate Change Policy of Jordan for 2022-2050 envisions a transformative approach to climate action, with the vision that Jordan will have enhanced its preparedness and resilience against the effects of climate change by 2050, while achieving a high level of energy security and sustainable development.

The policy is the overarching guiding document for mainstreaming climate change into all objectives, sectoral policies, strategies, and action plans to support Jordan in being part of the global effort towards carbon neutrality. The various sections within the Climate Change Policy 2022-2050 are designed to address sector-specific strategies for adaptation and mitigation, articulate the essential enabling factors, and provide clarity on underlying assumptions. The proposed policies, together with their associated actions and mechanisms, are anticipated to serve three primary purposes:

- Climate change mitigation, through the reduction of GHG emissions and the promotion of a low carbon economy
- Climate change adaptation, through the adoption of practices that reduce climate vulnerabilities and increase climate resilience.
- Sustainable development, through the promotion of inclusive and sustainable growth, the creation of employment and the overall improvement of the quality of life of individuals.

The policies and actions are aligned with the objectives of the Paris Agreement, United Nations Framework Convention on Climate Change (UNFCCC), and the Nationally Determined Contributions of Jordan.

National Planning for Refugees in Jordan

National Resilience Plan⁹³

The National Resilience Plan (NRP) provides a three-year Programme identifying high priority investments to respond to the impact of the Syrian crisis on Jordan. The NRP aims to mitigate the potentially destabilizing political, demographic, social, economic and fiscal effects of the crisis.

Regional Refugee and Resilience Plan (3RP)⁹⁴

The Regional Refugee and Resilience Plan (3RP) represents a strategic platform for coordination, planning, advocacy, and fundraising between humanitarian and development partners to respond to the Syrian crisis. It is a regional plan that includes five chapters covering Jordan, Turkey, Lebanon, Iraq, and Egypt. The 3RP has two interconnected components; the refugee component addressing protection and humanitarian assistance needs of refugees and the resilience component addressing resilience, stabilization, and development needs of affected individuals, communities, and institutions; aiming to strengthen the national actors' capacities.

According to the 3RP (2021), the major challenges that Jordan is facing are the impact of COVID-19 on both refugees and host communities which resulted in an

increase the unemployment rate, food insecurity, and inadequate access to basic services and needs. Jordan's Key Selected Targets for year 2021 are highlighted below.

Jordan Response Plan⁹⁵

The Jordan Response Plan (JRP) was developed by the government of Jordan as a measure based on experiences from hosting various waves of refugees. Since 2013, the government has taken a proactive role in responding to the impact of the Syrian crisis within a resilience framework. The JRP is the only national comprehensive plan that includes financial support from the international community.

The 2015 and 2016-2019 JRP, prepared by governmental agencies and international donors, aims to meet the immediate needs of Syrian refugees living in cities and camps as well as vulnerable Jordanians affected by the crisis. JRP also aims to support the government budget to cope with the additional financial obligations and income losses resulting from the Syrian crisis, and strengthen the capacity and resilience of various sectors at local and national levels, including health, education, justice and sanitation systems. At the local level, the JRP assists municipalities in providing access



More than 850,000

Syrian refugees and vulnerable Jordanians are targeted to receive food assistance through cash-based transfers



70,000 Syrian refugees

are issued work permits



550 officially established and registered Home Based Businesses

by GAM or municipalities under the purview of MOLA are owned by Syrians

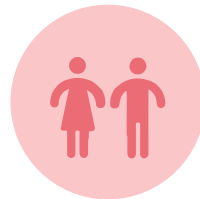


41,000 households

assisted with regular monthly cash assistance with 50,000 households assisted through COVID emergency cash assistance (3 months)



Supply



50,000 Syrian refugees

working in the private sector and registered in national security system are supported with enrolment in social security



172,234 Persons

with disabilities, older persons at risk and other vulnerable persons are assisted through referral systems, targeted assistance and outreach

to municipal services and infrastructure, such as solid waste management, energy, transport and environment. It also aims to address social imbalances and foster social cohesion between refugees and host community through increasing access to employment.

For the period of 2020-2022, the JRP's main priority is to empower the systems to address key challenges to protect the dignity and welfare of Syrian refugees and vulnerable Jordanians impacted by the Syrian crisis, emphasizing the need for continuous collaboration with the international community. The JRP is currently being updated for the years 2024-2026, with a focus on the priority sector-specific objectives.

The JRP has guided various changes over the past few years. Access to education has improved, with over 130,000 Syrian refugees enrolled in public schools across the country. More than 211,000 primary healthcare assistance services and 91,930 maternal and child health assistance services have been provided to Syrian refugees and vulnerable Jordanians. Cash assistance programming has reached an average of 143,000 Syrian refugees and 5,800 Jordanians per month, while 18,225 Syrian households have received non-food item kits. Several policies have been adopted to allow for formal participation of Syrian refugees into the workplace, resulting in over 220,000 permits issued. The government's recent policy changes have enabled the establishment of home-based business by Syrian refugees inside and outside camps, resulting in around 49 Syrian-owned home-based businesses.

The Jordan Compact⁹⁶

In February 2016, a new approach to dealing with protracted displacement was signed: the Jordan Compact. It brings together international humanitarian and development actors under the host country leadership, combining humanitarian and development funding through multi-year grants and concessional loans. The Compact is an innovative approach to addressing large movements of refugees as it brings together humanitarian and development actors for a more effective response to protracted displacement. It is anchored to three interlinked pillars, which aim to support Jordan's growth agenda while maintaining resilience and economic stability, through the following goals:

- Turning the Syrian refugee crisis into a development opportunity that attracts new investments and opens up the EU market, creating jobs for Jordanians and Syrian refugees, while also supporting the post-conflict Syrian economy;

- Rebuilding the Jordanian host communities by adequately financing the resilience of host communities through grants from the JRP; and,
- Mobilising sufficient grants and concessionary financing to support the macroeconomic framework, and address Jordan's financing needs over the next three years, as part of Jordan entering into a new Extended Fund Facility programme with the IMF.

One of the targets of the Compact is access to formal labour markets. Jordan has been able to issue 200,000 work permits for Syrian refugees. The Compact stipulates that Jordan will institute reforms to improve the business and investment environment and formalise Syrian businesses. As part of the Compact, the EU has committed to relaxing trade regulations to stimulate exports from 18 designated economic zones and industrial areas in Jordan, in return for employment quotas for Syrian refugees in these businesses. Jordan has also committed to provide access to schools to all Syrian children and provide vocational training opportunities.

The Global Compact for Migration⁹⁷

In 2016, Heads of Governments and States within the UN General Assembly, came together for the first time at the global level, to discuss issues related to refugees and migration. Several intergovernmental consultations and negotiations were held towards the development of a Global Compact for Safe, Orderly, and Regular Migration. The Global Compact for Migration (GCM), prepared under the auspices of the United Nations, is the first intergovernmentally negotiated agreement that covers holistically all international migration dimensions. The non-binding GCM encompasses 23 objectives that address better management of migration at global, national, regional, and local levels. It is considered a significant opportunity to improve the governance of migration, address the challenges associated with today's migration, and strengthen the contribution of migrants and migration to sustainable development.

In 2019, the UN established a National Migration Working Group in Jordan, to ensure coordinated support by the UN country team, to the Government of Jordan (GoJ) and other relevant non-governmental stakeholders in implementing the GCM and other relevant policies⁹⁸.

Land & Property Rights

While Jordan has a relatively large land area in comparison to its population, more than half of the population lives in or around Amman. Competition for urban land has led to an increase in land prices, which are among the highest in the region. Despite this large land area, relatively little is found inside urban areas, and even less that is unbuilt. Most available land in urban areas is in small, isolated pockets that are left over from other developments, or already allocated to municipalities for future development and provision of social infrastructure or public use. As a result, the remaining large tracts of land are privately owned and found on the outskirts of urban areas. Jordan has a mixed legal system based on civil law, Shari'a law (Islamic law) and customary law. The legal, institutional, and administration frameworks related to land tenure reflects a gradual movement towards land privatization. While this has enabled more inhabitants and foreign nationals to own land, the de facto and de jure land law have led to unsustainable land use practices and severe land degradation, particularly in the rangelands.⁹⁹

The current land ownership in Jordan falls under three categories: privately owned land that is registered and documented; rangelands and tribal territories which had been historically distributed by tribal leaders; and state land which covers most uncultivated land and which includes grazing lands operated under common property regimes. On one hand private land, which accounts for 11,604 km², equivalent to 12.9% of Jordan's total area, and represented by 800,000 titles, are clearly defined and registered.¹⁰⁰ While on the other, state land, accounting for 80% of the country's total lands, are poorly defined and documented. Customary rights on these lands are unclear and can lead to large-scale tenure insecurity. Traditionally, pastoral land is considered to belong to tribes, who have full rights of use of the land, although it is also claimed as state land. This contributes to the mismanagement of natural resources, leading to overgrazing and desertification, and results in land use conflicts.¹⁰¹ Moreover, the elimination of tribal ownership has led to lack of incentives to encourage Bedouins and pastoralists to maintain and conserve the resources and rangelands. Informal sale of former tribal lands in both urban and rural areas still occurs. Considering that the basis for security land rights is through land registration, the transactions of these lands is not considered valid.¹⁰²

In urban areas, most of the land is privately owned land, and is transacted through sale or lease. Most of the privately owned land in urban areas are inherited as opposed to outright land purchase. State-owned land is authorised for lease or purchase only for Jordanian nationals. However, foreign nationals and firms are able to own or lease properties in Jordan for investment purposes and are allowed one residence for personal use if their home country permits reciprocal property ownership rights for Jordanians.¹⁰³

In 2019, a significant reform was made with the passing of the new Real Estate Ownership Law No. 13. This law unified more than 13 land administration-related legislations and 19 bylaws into one code. The new law aims to promote the security of land tenure, streamline land registration procedures, and encourage investment. It includes legal rules regarding powers of attorney in land matters, removal of common ownership, and leasing and property ownership by non-Jordanians and legal entities.¹⁰⁴

The Department of Lands and Survey (DLS) was established in 1927 and plays a vital role in guaranteeing the right of ownership of land, conflict resolution on matters concerning land and sources. It is considered Jordan's information bank on land ownership and is currently responsible for three main tasks: cadastral surveying, registration of land and property, and management of treasury (State) lands. All land transactions must be registered with DLS, even in special economic development areas like JVA and ASEZA. The cadastral database is digitalized and keeps records of all procedures and documents, including land registers and cadastral plans. DLS has land registration directorates and registration offices in all governorates and sub-governorates. As for treasury (state) lands, DLS carries out several tasks including leasing, expropriation, and control of subdivision and boundary fixing transactions implemented by licensed surveyors. DLS collects sales taxes and registration fees from the governorate.¹⁰⁵ However, according to DLS records, in 1975, the surveyed area was equivalent to only 16% of the total area of Jordan, the remaining land was neither surveyed or registered. In Mafraq governorate, only 6.2% of the total area of land is surveyed.¹⁰⁶ Despite these well-established land administration processes and clear mandates, there are various challenges. Several legislations regulate urban planning in Jordan, but they are not codified into one law. Facing the challenges of urban growth and meeting the urban planning and development needs of Jordanian cities cannot be adequately achieved unless based on a supportive legal framework where all planning and building rules are unified under one modern and comprehensive urban planning code.¹⁰⁷

Moreover, most urban land is privately owned, while most non-urban land is treasury (state) land. As private lands are located in prime areas, they have become more expensive with the increased demand, while state lands are outside the land market and remain underutilized.¹⁰⁸

During the land market bubble between 2005 and 2008, land speculation raised land prices by a factor of 10. This was influenced by the population influx of Iraqi and Palestinian refugees, scarcity of land, and higher land value assessments by the DLS. While the land market stabilized in the intervening

years, the influx of Syrian refugees has created a high demand for rental housing. The increase in rent prices impacted access to affordable and adequate housing for both host communities and refugees, with 70% of Jordanian households not able to afford adequate housing.¹⁰⁹ Rental costs are highest in Irbid, East Amman, and Madaba.

Since then, in 2019, the nationwide residential real estate price index experienced a 2.4% drop with apartments seeing the biggest price decline of 2.59%, while residential land prices rose by 2.16% year-on-year. The total number of construction permits granted for residential buildings in 2019 dropped by 7% compared to 2018. Moreover, In 2020, the trade volume in Jordan’s real estate sector during January-September dropped by 29%, with apartment sales decreasing by 13% and land parcel sales falling by 5% compared to the same period in 2019. Despite the drop in residential construction, Jordan’s Green Building Council estimates a need for at least 100,000 new housing units to meet demand. In Mafraq housing needs will grow from 3,855 in 2020 to 4,130 in 2025.¹¹⁰

Women’s rights to land are enshrined within the Constitution, the legal framework, within the Shari’a law and even the customary law. There are no legal restrictions on the ownership or purchase/sale of land by women both as individuals and jointly through marriage. Data from 2012 reveal that married women’s ownership of house and land titles increases with age and wealth, and that urban married women and those living out of refugee camps are more likely to own a house than rural married women. Women with higher education are also more likely to own land or homes. However, social restrictions on land inheritance and land ownership remain and have an adverse impact on poor women, driven by strong cultural, religious, traditional and financial barriers. Female heirs face pressures to relinquish their land and property rights through various forms ranging from intimidation, violence, and subtle coercive forms of taking land rights by male heirs through offering “gifts” to female heirs in exchange of land and property shares. According to Jordan’s Department of Statistics, in 2014, Jordanian women owned 24.7% of registered apartments, men owned 70% while the remaining 5.3% is co-owned by men and women. In Mafraq, 76.3% of registered apartment are owned by men, 21.3% by women and 2.3% is co-owned.

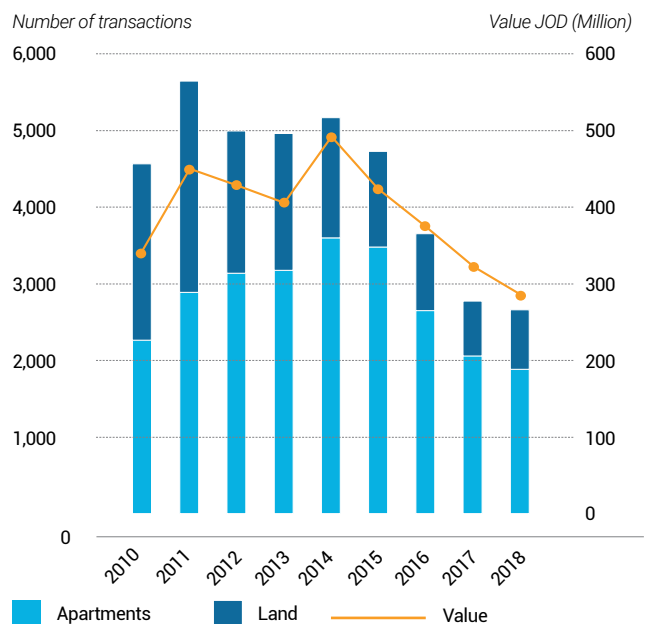
Families headed by women also tend to have fewer economic assets than households headed by men; 43% of male heads of households receive loans for agricultural development and 14% receive loans for income-generating activities, compared to 21% and 9% of female heads of households respectively.

Legal improvements need to be accompanied by remedies to realize women’s land rights, including increasing women’s

awareness of their rights to inheritance, enforcing laws relating to the division of inheritance, and empowering women economically to enable claims to their rights. The Jordanian government, in cooperation with NGOs, have worked to promote women’s empowerment and removing legal barriers to land access, ownership and use.

As for refugees, they are the most tenure insecure in Jordan, particularly Syrian refugees. A quarter of refugee families are female-headed households. Many households rent houses without basic rental agreements, leaving families vulnerable to forced eviction and further displacement. Furthermore, one in ten refugees is living in an informal shelter such as a tent, mud hut or caravan. Almost half of refugees are living in shelters whose condition is classified as undignified. The demand for rental housing has surged, leading to sharp increases in rent prices and exacerbating housing affordability issues for both refugees and host communities. For example, rental accommodation prices have surged by 200–300 percent compared to pre-crisis levels.

There are efforts to improve tenure security through programmes that provide rent-free accommodation to families most in need by upgrading uninhabitable, substandard buildings. Through bilateral agreements, renters agree to upgrade houses in exchange for the legal right to occupy the land and property for a 12-24 months period. As demand for dignified housing increases, tensions between refugees and host communities are likely to increase. Addressing these housing issues is crucial to prevent violence and ensure social cohesion.



Real-Estate sales to Non-Jordanians in 2018
Source: DLS Annual Report 2018

Municipal Finance

In this chapter, it is important to note that Greater Amman Municipality (GAM), Aqaba Special Economic Zone (ASEZA), Petra Development Tourism Regional Authority (PDTRA) and Jordan Valley Authority (JVA) are autonomous entities, and do not fall under MoLA's jurisdiction, therefore the information below excludes them, unless stated otherwise. Also important to note, is that under the Local Administration Law of 2021, municipalities are classified into three categories based on population size; category 1 includes 12 municipalities with populations over 200,000, category 2 includes 65 municipalities with populations between 50,000 and 200,000, and category 3 includes the rest of the municipalities that are not classified in categories 1 and 2.

Jordan's municipalities are legal and budgetary entities governed by the Local Administration Law, which defines them as "a civil institution with financial and administrative independence." Budget preparation and execution is governed by Law No.22/2021, it details the responsibilities of the Local Council to approve the general and annual budgets of the municipality. It is then endorsed by the Minister of Local Administration.¹¹¹

However, municipalities are, for the most part, institutionally and financially weak.¹¹² Many rely heavily on central governmental transfers, due to low income revenues, municipal staff salaries accounting for half the budget, and the lack of capacity to manage their own resources and utilize their own revenues/expenditure,¹¹³ and further exacerbated because of the state-imposed privatization of urban services.¹¹⁴ As a result, many responsibilities and financial resources remain vested in centrally-controlled agencies.¹¹⁵ This renders municipalities subject to strict centralized control over their budgets.¹¹⁶

The transfer allocation system dates back to 2002, and takes into account several factors, including: population, percentage of poor, and distance to Amman. Although central fiscal transfers represent more than half of the municipal revenues, Jordan remains one of the Middle Eastern states wherein municipalities receive the lowest share in public expenditures, only 3% of the central state budget is dedicated to municipalities.¹¹⁷ Municipal expenditure for all entities including (GAM, ASEZA, PDTRA and JVA) relative to GDP is 6.2%.¹¹⁸ The system has been unstable over the past few years due to other commitments from the central government.¹¹⁹ Consequently, municipalities are typically not notified in advance about the amount of governmental transfer, and in many instances, the grant transfer is delayed until May or later, driving municipalities to borrow from the Cities

and Villages Development Bank (CVDB). As such, mayors have expressed concerns about the lack of predictability in the system, limiting the ability to properly plan budgets and expenditures.¹²⁰

More than half of Jordan's municipalities are currently experiencing an acute deficit and concomitant high degree of indebtedness. In 2017, the government decided to distribute JOD100 million to municipalities to help them settle a proportion of their debts,¹²¹ total municipal debt in 2017 amounted to JOD130 million. Many municipalities spend most of their budget on municipal employees' salaries, which highly restrains their scope of action in the face of indebtedness. This centralized control over local spending has negative consequences on the quality of service delivery and urban planning at the municipal level.¹²²

Figures show that approximately 43% of Jordan's population work as civil servants,¹²³ resulting in low economic dynamics within the municipalities.¹²⁴ Despite an announced municipal hiring freeze, the amount spent by municipalities on salaries and wages increased from JOD 36.9 million in 2002 to JOD 44.1 million in 2004 and JOD 95 million in 2012 to JOD 130 million in 2015. This amounts to 47.6% of 'category 1' municipalities' budgets, and around 33% of 'categories 2 and 3' municipalities' budgets.¹²⁵

This issue is further exacerbated by the Syrian crisis, that has caused increased pressure on the fragile services to meet the demands from both host communities and refugee populations. The JRP estimates that the total debt of municipalities to provide services to Syrians in Jordan, is reaching an average of USD 20.9 million per year for the years 2020-2022.¹²⁶

Municipalities cost	2020	2021	2022
Municipalities Debt (USD)	151,056,338	161,355,634	172,444,542
Cost per person	13.9	14.5	15.1
Total cost of Syrian refugees	19,500,006	20,899,269	22,409,828

Table 2: Total direct cost for municipalities to provide services to Syrians in Jordan for the period 2020-2022.

Source: JRP

The cumulative impact of the Syrian crisis is equivalent to 18% of the GDP, due to disruptions to regional trade as well as influx of refugees.¹²⁷ According to 2016 World Bank Quarterly Economic Brief (QEB), it is estimated that each refugee costs the Jordanian government \$3,750 (JD2,500) per year. The influx of more than 630,000 registered Syrian refugees costs the Kingdom over \$2.5

billion a year, which amounts to 6% of Jordan’s GDP and one-fourth of the government’s annual revenues. According to JRP 2020-2022, the Jordanian government has incurred substantial costs from service provision to Syrian refugees. These costs mainly include energy and water, which the government provides at subsidized prices to all residents regardless of the nationality, in addition to providing education, exemption of work permit fee, and infrastructure services.¹²⁹ The cost estimates of these services in 2020, as well as the forecasts for 2021 and 2022, are reported in the table to below.

	2020	2021	2022
Subsidized Energy	146,333,803	149,150,704	151,967,606
Subsidized Water	59,000,000	60,000,000	61,000,000
Work Permit Waivers	41,509,600	39,622,800	37,736,000
Infrastructure Depreciation	147,798,044	148,395,250	150,222,047
Health	72,277,000	74,373,000	76,529,000

Table 3: Cost of Providing Selected Public Services to Syrian Refugees (measured in JD).
Source: JRP

In 2016, the total municipal revenues reached JOD 359.8 million. Of this, JOD 110 million came from governmental transfers, JOD 9 million from governmental grants, and JOD 240.5 million in self-revenue. JOD 138 million (58% of self-revenue) was generated through building and land taxes, waste collection fees reached JOD 16.5 million (7% of self-revenues), and betterment levies charged by the municipalities to support the extension of infrastructure to new areas totalled to JOD 13.2 million (6% of self-revenues).¹²⁹

Many municipalities have limited access to own-source revenue from property tax collection, capital revenues from renting out public buildings, and fees for solid waste collection, permitting and licensing. Most municipalities are only able to raise one third to one fifth of their revenue from such sources. Commercial financing for municipal investments has been limited, with municipalities mostly borrowing from CVDB.¹³⁰ CVDB reserves the right to intercept fiscal transfers as a mitigation against the risk it is exposed.¹³¹

In terms of investments, direct investments by municipalities are limited, with the majority of investments within municipal areas coming from line ministries through their de-concentrated units at governorate level. However, consultations with municipalities are often limited, resulting in limited coordination for an integrated urban approach.¹³² The lack of coordination could be attributed to the fact that governorates operate under and are administrated by the MoI, while municipalities

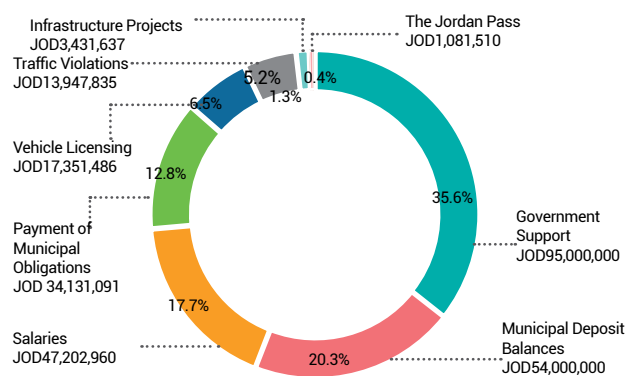
represent a separate government level, overseen by MoLA.

The availability of financing for municipalities is necessary, to enhance sustainable urban development across the whole of Jordan. Given the municipalities’ limited capacity to support local economic development, the government has taken steps to improve the financial situation of the municipalities, including the expansion of the transfer pool, application of a more equitable municipal transfer formula, and a revision to the Municipalities and Decentralization Laws.

Cities and Villages Development Bank

The Cities and Villages Development Bank, is an administratively and financially independent public institution established in 1979, that provides long term financing to establish both services and productivity projects through local councils. The bank’s capital in 2017 was raised to 110 million, with 68% contributed from the central government, 30% from local councils, and 2% from the Jordan Central Bank.¹³³

The CVDB administrates and guarantees loans held between the municipalities and any other party, assists the local councils in setting priorities for economic feasible projects and provides technical experience and services including training of technical staff. It acts as financial intermediary for government transfers. The accounts of municipalities are inspected by the Audit Bureau (AB). CVDB loans for one municipality must not exceed 15% of the bank’s capital and reserves, and a single loan must not be greater than 2% of the bank’s capital. A loan is subject to the financial position of the municipality and the project’s priorities (technical studies).¹³⁴ Despite the services provided by CVDB to municipalities, provision of infrastructure projects has accounted for JOD 3.4 million, equivalent only to 1% of the total portfolio, highlighting an opportunity for future empowerment.



2019 Accounts
Source: CVDB 2019 Annual Report

Land Value Capture Instruments

The 1966 Planning Law has a number of provisions that could be useful for municipalities to build upon to increase their revenue streams. There are provisions for two forms of development levies within the planning law, including 'general' and 'special' development levies. General development levies are implemented following decisions of the Supreme Planning Council, while special development levies are decided by the provincial or local planning committees. Revenues are used to cover capital expenses of a particular public or private project, and both development levies should be charged to land or property owners.¹³⁵

Betterment Levies

Betterment levies, which are outlined in article 54 of the Planning Law, entails a one-off charge levied on land located in a specified area of influence, that has increased in value as a result of public investment. The article indicates that revenues from these levies are meant to cover costs of land expropriation required for future public investment and associated compensations, along with other costs of construction.¹³⁶

The Real Estate Ownership Law for 2019 has provisions for betterment taxes, which is charged following an official expropriation of land that was for the purpose of the construction of a new road or the expansion of road space. It is charged on property owners directly affected by the road space and is typically up to 25% of the amount of the overall appreciation of the land. The tax is paid specifically in four equal instalments over a period of four years.¹³⁷

However, despite all these instruments legally present in laws, it has been noted that taxation is not as politically acceptable as needed; only around 7% of respondents of a recent survey on public opinion noted that they would support the government levying new taxes to improve basic services such as health care, education and infrastructure. 70% of the survey respondents cited affordability reason, and another 12% cited the low provision of services provided by the government does not justify an even higher tax take.¹³⁸

Local Economy

The informal sector constitutes 26% of the Jordanian economy, limiting municipal revenue collection and hindering local economic development.¹³⁹ In terms of ownership of enterprises, Syrians have recently begun establishing their own private investment businesses, in the industry, commerce, agriculture or real estate sectors.¹⁴⁰ By the end of 2013, Arab investors have invested 40% in the industry sector, 38% in the commercial sector, 20% in the agricultural sector and 2.5% in the real estate sector, highlighting Jordan's openness to investors and ease of doing business.¹⁴¹ Moreover, investments in the Kingdom are expected to reach around \$8.9 billion, comprising 18.7% of the GDP in 2022.¹⁴²

A large number of Public-Private Partnerships (PPP) have been signed to meet increasing infrastructure needs since 2005. By 2015, 30% of the total public sector's investment portfolio was procured through PPP, compared to 6% in emerging economies.¹⁴³ The PPP Law No. 17 was approved in 2020, providing the legal framework for the government's PPP programme and formalizing the role of the PPP unit. Jordan's PPP Unit, coordinates government efforts to increase private sector participation in key infrastructure projects.

Jordanian municipalities are very interested in the involvement of the private sector and the development of PPP. They are required by law to create investment committees comprising the mayor, the executive director, members of the Municipal Local Development Unit (MLDU) and a representative of the Finance Department.

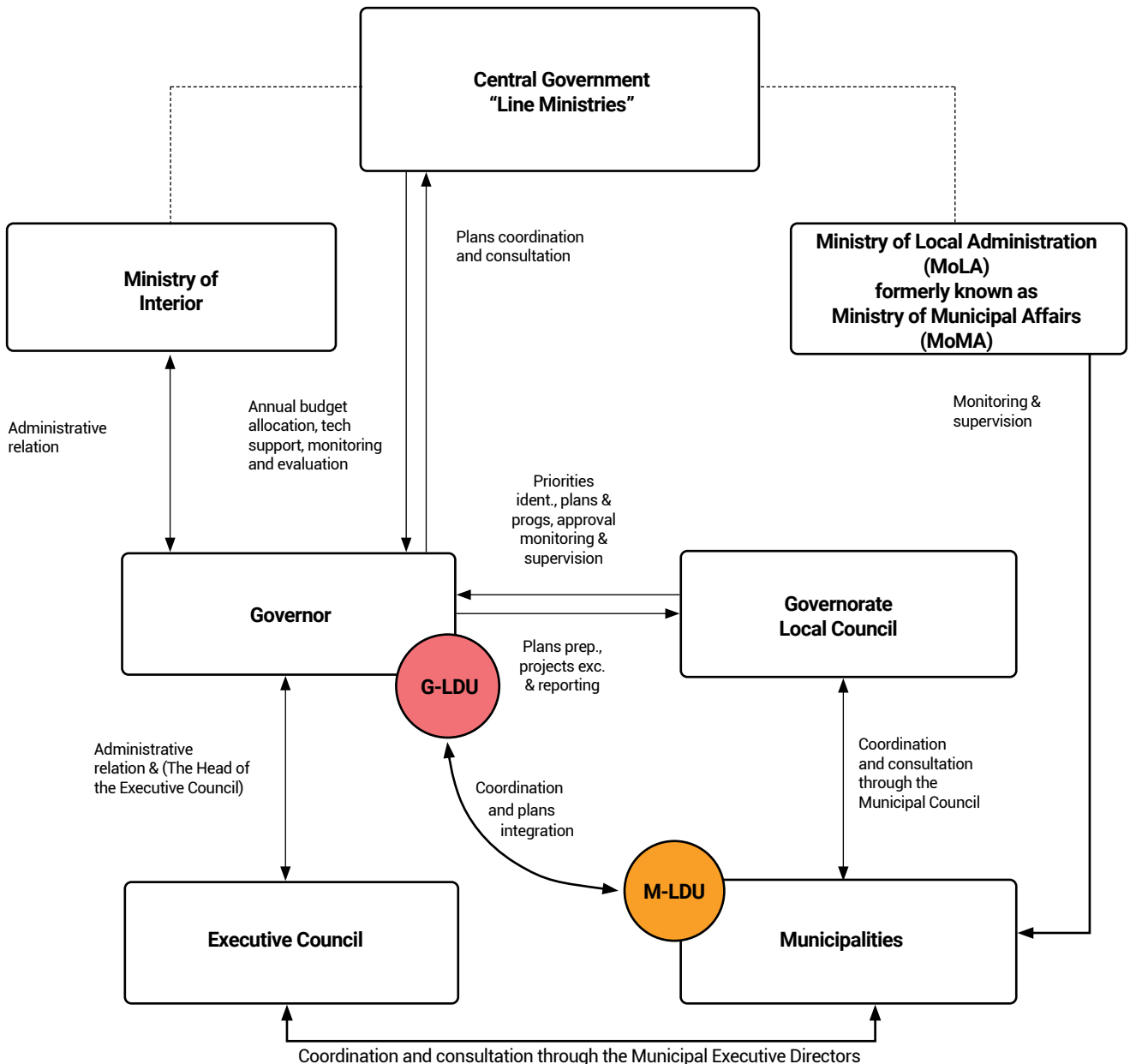
Local Economic Development

In order to address the rising unemployment, and foster job creation at municipal level, MLDUs were created in the 1990's, but each unit typically consists of only one person.¹⁴⁴ Some mayors did not see the benefit of the MLDU and shut them down. In 2003, Local Development Units were created within each governorate (GLDUs), with the aim of developing participatory mechanisms to engage local stakeholders in local development processes. GLDUs were reactivated in 2006 during the preparation of the decentralization process.

According to the 2021 Local Administration Law, municipal councils are in charge of identifying local investment needs through a participatory process. In reality, the LDUs are playing this role.

their communities, and launched a the USAIN LENS project to improve local economic development (LED). The project works with the GLDUs and MLDUs in Amman, Zarqa and Irbid which gather most of Jordan’s enterprises, to achieve economic growth.

USAID works with municipalities in order to train them to foster business creation and economic growth in



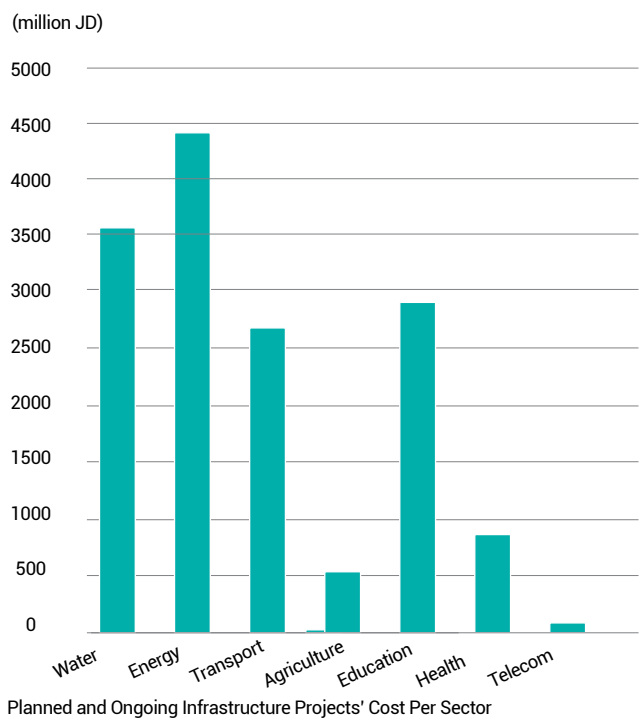
The Decentralization Structure including coordination between LDU's
Source: OECD 2017

Major Infrastructure Initiatives

Jordan’s infrastructure is well developed, and heavily contributes to the GDP. In 2017, the public services sector contributed to 61.4% to the GDP, while the industrial sector contributed 27.4% to the GDP.¹⁴⁵

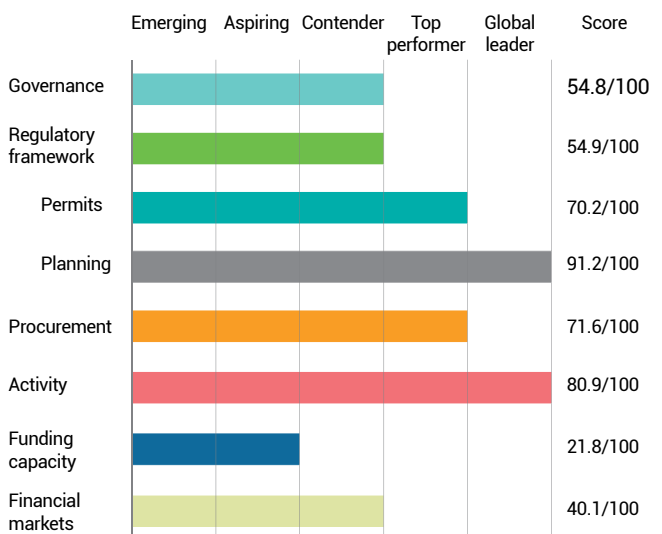
Jordan is one of the highest ranked countries in Global Infrastructure Hub’s InfraCompass 2020, with the quality of infrastructure scored at 67.4 out of 100.¹⁴⁶ The country is considered to be a global leader in the Activity drive, in particular, scoring 80.9.¹⁴⁷ The ‘Activity’ is measured against the extent and nature of recent infrastructure investment activity and extent of private sector involvement over the last five years, relative to the size of the economy, whereby at 1.4% of GDP, Jordan has one of the highest levels of private investment in infrastructure as a share of GDP globally.¹⁴⁸

However, InfraCompass 2020 also reveals that there are several metrics to improve, particularly in relation to financial markets (stocks trade), funding capacity (gross government debt and long term GDP growth). Jordan traded stocks worth approximately 5.5% of GDP in 2019, below the Upper Middle Income Countries’ average of 25.6%.¹⁴⁹ This indicator is essential for infrastructure investors to exit investments at appropriate points.



Jordan’s debt to GDP ratio is at 94.6%, revealing one of the highest level of gross government debts in Upper Middle Income Countries.¹⁵⁰ Jordan’s long-term GDP growth is 2.7%, lower than the average, could also hamper Jordan’s ability to borrow and build more infrastructure.¹⁵¹

The assessment from InfraCompass reveals that Jordan is a high scorer in terms of planning, whereby there is a set of priorities and corresponding pipeline projects. In total, 250 projects have been identified in the pipeline, with a total cost of JOD 15.853 billion. These projects are all listed in key documents, such as the Jordan Economic Growth Plan 2018-2022 and Green Growth National Action Plan 2021-2025, and have been uploaded to the Information System for Jordan Response Platform for the Syria Crisis (JORISS). From the 250 projects, the majority of the projects are in the and energy sectors, with 36 and 33 projects respectively, followed by education (29), health (25), agriculture (16), sanitation (13), justice (10) and transport (9). In terms of costs, more than JOD 2 billion have been allocated for projects in water, energy, transport and education, revealing high interest by the government to address key challenges related to these sectors, such as scarcity, reliance on fossil fuels, limited mobility options and growing youth population.



Ranking of Jordan’s driver performance on a scale from “Emerging” (score from 0-20) to “Global Leader” (score from 80-100). Source: Global Infrastructure Hub

Refugee Response

The Syrian crisis has increased the pressure across basic needs, such as supply, educational and health sectors.¹⁵² In the first two years of the Syria crisis, the international community's response focused almost exclusively on providing humanitarian assistance to the refugees. However, more recently, attention has turned to building resilience of the host community and mitigating the impact on the country's population, infrastructure, and economy.¹⁵³

The JRP 2018-2021 supported infrastructure provision by identifying key priorities in infrastructure systems to provide access to quality public services in several vital sectors. The highest sector allocated funding is social protection and justice, followed by WASH, economic development, shelter, education, health and public services.¹⁵⁴

The JRP 2024-2026 is currently undergoing development. This plan incorporates three distinct response types: the Host Community Response,

Refugees in Host Community, and Refugees in Camps. The Host Community Response endeavors to provide assistance to both Jordanians and refugees, focusing on infrastructure development and institutional capacity building, with a distribution ratio of 70% for Jordanians and 30% for Syrian refugees. On the other hand, the Refugees in Host Community program prioritizes refugees in specific geographic areas, emphasizing the provision of basic needs and cash assistance, with a distribution ratio of 30% for Jordanians and 70% for Syrian refugees. Lastly, the Refugees in Camps initiative targets 100% of the refugees within camps, providing a diverse range of interventions. The task forces responsible for crafting the JRP comprise several key entities, including line ministries, the Ministry of Planning and International Cooperation, the private sector, the Jordan National Commission for Women, the Higher Council of Persons with Disabilities, NGOs, the World Bank, UN agencies, and various donors. These task forces are structured around two fundamental pillars: protection and basic services, as well as economic activities.¹⁵⁵

Sector	2020	2021	2022	Total
Public Services	116,003,454	106,151,555	75,919,722	298,074,731
Health	163,268,972	177,889,629	161,959,878	503,118,479
Education	202,060,332	180,315,000	179,840,000	562,215,332
Shelter	25,071,888	10,178,044	9,678,250	44,928,182
Economic Empowerment- Food Security	225,752,000	216,756,268	197,620,000	640,128,268
Economic Empowerment- Livelihoods	68,465,000	58,845,000	41,480,000	168,790,000
WASH	129,775,983	220,883,397	132,794,174	483,453,554
Social Protection and Justice	386,883,817	343,655,889	336,175,631	1,066,715,337
Total Project Requirements	1,317,281,446	1,314,674,782	1,135,467,655	3,767,423,883
Direct Budget Support	932,267,195	948,035,730	959,402,595	2,839,705,520
JRP Grand Total	2,249,548,641	2,262,710,512	2,094,870,250	6,607,129,403

Table 4: Required Budget Allocation for Infrastructure Sectors in Jordan USD (2020-2022)
Source: JRP

Jordan overall is heavily reliant on not only the private sector for the provision of infrastructure, but also development banks. In 2018, EBRD provided Jordan with USD 1 billion to finance infrastructure projects in energy, transport, and wastewater, solid waste, education and other municipal services.¹⁵⁶ More recently, the Asian Infrastructure Investment Bank (AIIB) has approved a USD 250 million investment in Jordan to accelerate economic recovery from the COVID-19 pandemic, as well as another USD 1.2 billion project co-financed with the World Bank called the Inclusive, Transparent and Climate Responsive Investments Programme-for-Results (PforR) project.¹⁵⁷

Electricity and Telecommunications

The quality of Jordan's existing infrastructure is widely recognized, with its electricity and telecommunications infrastructure ranking among the best in the region.¹⁵⁸ 100% of the population has access to electricity, with only 10.3% of electricity output lost.¹⁵⁹ It is also estimated that 87.6% of the population are subscribed to mobile-broadband, while only 3.9% are subscribed to fixed-broadband internet.¹⁶⁰

Transport

The transport sector, which accounts for more than 8% of Jordan's GDP, also has a relatively well-developed infrastructure to support the growth. It is one of the best in the region, with a scoring of 76.9.¹⁶¹ The highway network covers more than 2,700km, connecting all corners of the Kingdom with 1,900km of secondary roads.¹⁶² The presence of 3 major airports in the country has strengthened Jordan's connectivity and transport infrastructure.¹⁶³ However, despite the improvements in physical transport infrastructure, public transportation is still limited across the country for several reasons. Therefore, most Jordanians are dependent on the use of individual motorized vehicles, whereby 52% of respondents to a survey by REACH/UNWOMEN indicated that cars are their primary means of transport, while only a fifth rely on the bus system.¹⁶⁴ The survey also exposes the car ownership gap between Jordanians and Syrians, whereby less than 1% of Syrian survey respondents indicated that they own a car, and 41% indicated that walking is their primary means of transportation.¹⁶⁵

Basic Services

Jordan has one of the lowest levels of resource availability per capita in the world. Nevertheless, approximately 98% of

the population has access to an improved source.¹⁶⁶ Yet, it is estimated that 40% of transported by pipes around the country is lost to leakage due to dilapidated pipes and tanks as well as improper installation and maintenance.¹⁶⁷

It is worth noting here that deficits are projected to occur in Jordan due to the increasing demand, driven by the population growth and influxes of refugees, as well as the decreasing levels at the existing ground and surface sources. These deficits are expected to vary geographically across the Kingdom; the Northern Governorates are expected to experience a more significant deficit in comparison to the Southern Governorates. This increases the need for bulk conveyance infrastructure to redistribute water. The Ministry of and Irrigation is currently considering seven new planned resources' projects, including: Amman Aqaba Desalination Conveyance Project (AAWDCP), Wadi Al Arab II, Hasa Shadeiah Wellfield (Khan Al Zabib Project), Hesban Wellfield Utilization Project, Basalt Wellfield Utilization Project, Kufranjah Dam Supply Project (Phase II), and Wehda Dam Supply Project. These projects vary in status ranging from being in the detailed feasibility phase to the construction phase.¹⁶⁸

Furthermore, there are planned waste infrastructure improvement projects, including capacity upgrading of the existing 28 WWTPs and 14 new WWTPs. Additionally, there are planned projects that aim to improve the existing sewerage network and expand the network's coverage.¹⁶⁹

Public Private Partnerships

Jordan has raised about \$10 billion in private capital through PPPs in the electricity, transport, and sectors since the 1990s.¹⁷⁰ However, challenges were witnessed in screening projects and preparing feasibility studies to expand the PPP models. A new PPP law was ratified in April 2020, to take effect in August 2020 in an effort to increase the significance and magnitude of PPP Projects in Jordan, to introduce more scrutiny and comprehensiveness to the overall PPP framework.¹⁷¹ Such efforts have been noted to help in achieving Jordan's Vision to support economic development, alleviate fiscal pressures and help address the effects of the refugee crisis.¹⁷²

Affordable Housing

Jordan's housing sector is currently facing two major and interconnected challenges; firstly, the lack of adequate, affordable housing, and, secondly, the need to respond to the escalated housing demand driven by the significant population growth of its own citizens alongside the succeeding influxes of Palestinian, Syrian, and Iraqi refugees.¹⁷³ Stimulated by demographic growth and arrival of several waves of refugees, Jordan's private sector produced 1.1 million dwellings between 2004 and 2015.¹⁷⁴ With half of these apartments built in Amman, many of them are spacious and unaffordable. Affordable housing accounted for less than 1% of the total housing produced between 2004 and 2015.¹⁷⁵ Being comprehensive, the total housing deficit in Jordan is over 15.9% at a national level; excluding Syrian refugee camps; which accounts for 310,926 households, of which 64% (199,245 households) suffer a quantitative deficit while 36% (111,681 households) suffer a qualitative deficit. Additionally, the 2015 Census revealed that 10% of the population live in overcrowded conditions and 43% of non-Jordanian households share apartments.¹⁷⁶ In mid-sized cities, Jordanians are competing with Syrian refugees for rental apartments.¹⁷⁷ Furthermore, the widespread lack of adequate and affordable housing in Jordan have historically been exacerbated by several factors, such as the mismatch between the housing supply and demand, the increase in land prices due to land speculation, the absence of taxation of vacant land, the lack of integration between housing and urban planning, the lack of appropriate regulation to address affordability, the lack of institutional capacity, the lack of stakeholder and political commitment, as well as the lack of incentives for developers to build more affordable units.¹⁷⁸

Developers have concentrated production on larger units (120-200 m²) whereby 50% of the new housing units that were built between 2004 and 2015 have an area of over 150 m², 40% of units have an area between 100-149 m², and a mere 10% of units are smaller than 100 m². This has consequently exacerbated the mismatch between the supply and demand of households. This is especially evident from the significantly high vacancy rates, which reached 18.4% in 2015.¹⁷⁹ Additionally, the number of vacant units doubled in over a decade, going from 220,000 in 2004 to 432,000 in 2015. A staggering 57% of vacant units nationwide were concentrated within Amman, with the vacancy rate increasing to 23% in 2015. This challenge is much greater now with the influx of refugees, who compete with Jordanians for affordable housing.¹⁸⁰ Over the next decade, Jordan will need to produce between 62,000 to 74,000 housing units based on the demand (small sized units) annually to reduce the current deficits

and keep up with new household formations.¹⁸¹ However, with the slowdown in construction since 2015, only 35,000 dwellings are formally constructed each year.¹⁸²

The Housing and Urban Development Corporation (HUDC) is the sole government agency responsible for housing and the umbrella under which the Jordanian housing sector operates. The HUDC was given the mandate to build housing for the middle classes and ensure serviced plots for individuals to inhabit. Decent Housing for a Decent Living, an initiative launched in 2008 aspired to build about 100,000 in five years. However, the initiative was not completed, and due to financing challenges, less than 10,000 units were built.¹⁸³ Over recent years, and due to several factors affecting its effective delivery of housing on the production side, the HUDC has been transitioning its role from production to focus more on policy.¹⁸⁴ Moreover, the Kingdom has made several efforts to combat the affordable housing shortage, such as building social housing projects, launching the Royal Housing Initiative named 'Decent Housing for Decent Living', and establishing the Housing Loan Subsidy Programme and the Jordan Mortgage Refinance Company. Unfortunately, these efforts have had limited success.¹⁸⁵ Plans are underway to update the National Housing Strategy, but limited funds are available. Regarding housing in refugee camps, Jordan became the first Arab country to upgrade the temporary refugee camps (also considered to be informal settlements) through public participation between 1981 and 1986.¹⁸⁶ Various initiatives took place after that across the country to continue upgrading Palestinian refugee camps.¹⁸⁷ Furthermore, the JRP for the Syria Crisis 2020-2022 aimed to improve living conditions for vulnerable Syrian refugees and Jordanians by providing access to adequate, secure, and affordable housing. Key activities included:

- Cash for Rent Assistance: Targeted cash assistance for extremely vulnerable Syrian refugees and Jordanians, benefiting around 7,000 individuals.
- Shelter Rehabilitation Services: Rehabilitation of shelters combined with rent-free or reduced rent lease agreements for 16,000 extremely vulnerable refugees and Jordanians.
- Accessibility Kits: Installation of kits to address various disabilities.
- Information and Awareness: Providing vulnerable people with information on their right to adequate housing.
- Water Connection and Conservation: Connecting vulnerable households to municipal water and promoting efficient water conservation practices.¹⁸⁸





Amnibi/Mai

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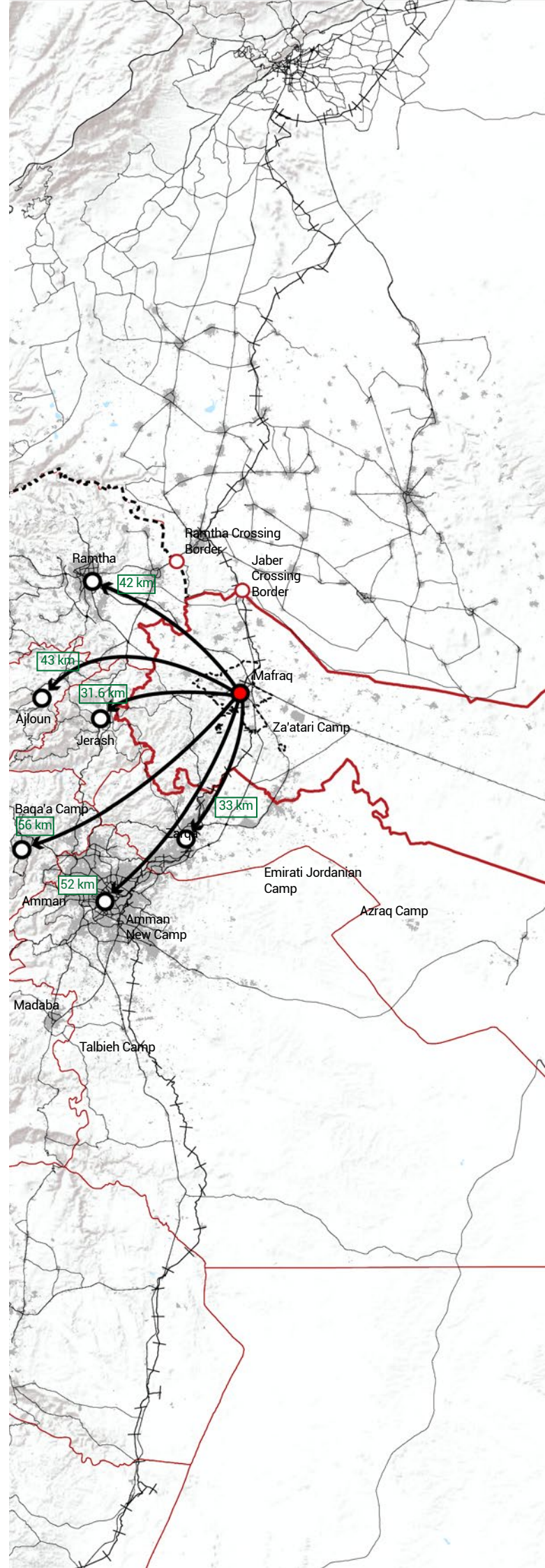
REGIONAL CONTEXT

Mafraq Governorate Location

In terms of size, Mafraq Governorate is the second largest in the Hashemite Kingdom of Jordan—after Ma'an Governorate. It is located at the North-Eastern region of Jordan¹⁸⁹ 72 kilometres North of the Capital Governorate of Amman.¹⁹⁰ Its domestic boundaries adjoin with the Zarqa Governorate to the South and Jerash and Irbid Governorates to the West.

Mafraq Governorate has a strategic location in the Kingdom, at the intersection of international roads that connect Jordan with Syria, Iraq, and Saudi Arabia¹⁹¹, which has resulted in migration-led population growth and rapid development. This intersection is represented in the name of 'Mafraq', both the name of the governorate and the greater municipality within it, which means 'junction'. Mafraq Governorate shares approximately 300 km of border with Syria, which includes the main border crossing points that have been used by Syrian refugees to enter Jordan.¹⁹² The governorate is around 703 metres above sea level, and extends over an approximate area of 26,551 km², equivalent to 29.6% of the total area of Jordan.¹⁹³

The map illustrates the proximity of Mafraq city to neighboring major cities, ranging from the closest to the furthest in terms of air distances. These cities include Jerash, Zarqa, Irbid, Ajloun, Amman, and As-Salt.



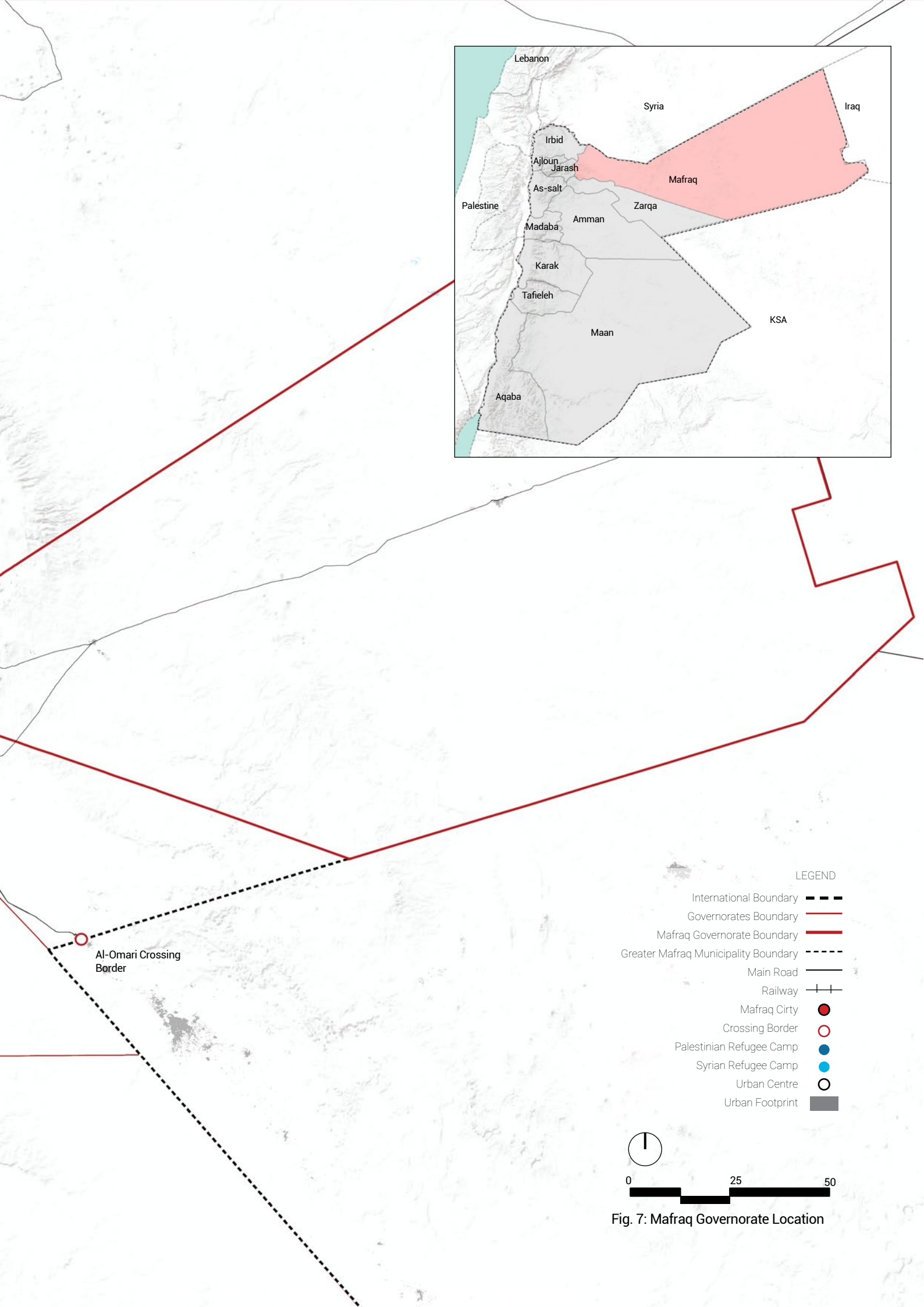


Fig. 7: Mafraq Governorate Location

Mafraq Governorate Connectivity

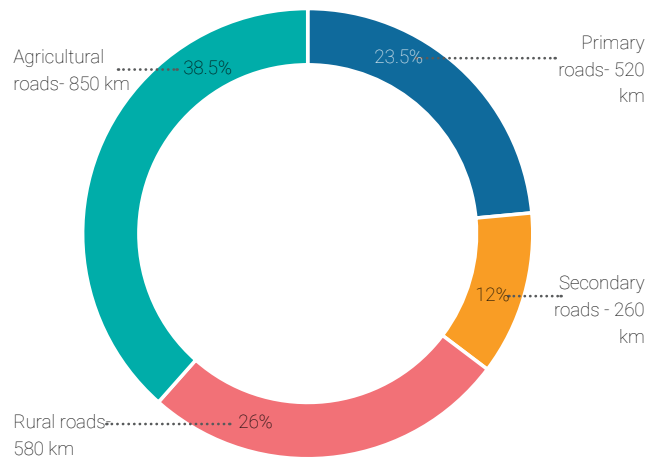
Mafraq Governorate is connected to its national and international neighbours through an airbase, a railway line, and road infrastructure. The King Hussein Air Base and College in Mafraq Governorate is the oldest air base in the country and now hosts a flight training facility.¹⁹⁴

The Governorate has five service and operation stations for the Hejaz Railway, which connects Jordan to Syria and is primarily used for trade purposes.¹⁹⁵ The railway line connects Mafraq Governorate longitudinally, with at the Eastern region of the Governorate, with the northernmost station within Jordan located in Jabber (near the Northern Jordan-Syria border and 147 km from Damascus), then extending southwards to other locations including the Mafraq city (main station) before crossing into Zarqa Governorate.¹⁹⁶ The development of these railway stations, notably the prominent one in Mafraq city, had a significant influence on the urban development of the governorate. These stations attracted populations to settle along the railway lines, affecting existing communities.¹⁹⁷ The main Hejaz Railway station in Mafraq holds the distinction of being referred to as the “nucleus” from which the city was launched.¹⁹⁸ The Ministry of Public Works and Housing has plans to construct a new transnational rail network that would connect Syria to Zarqa and Amman through Mafraq by 2030, with the aim of optimizing the dry ports and logistic centres operations in Mafraq and Amman.¹⁹⁹

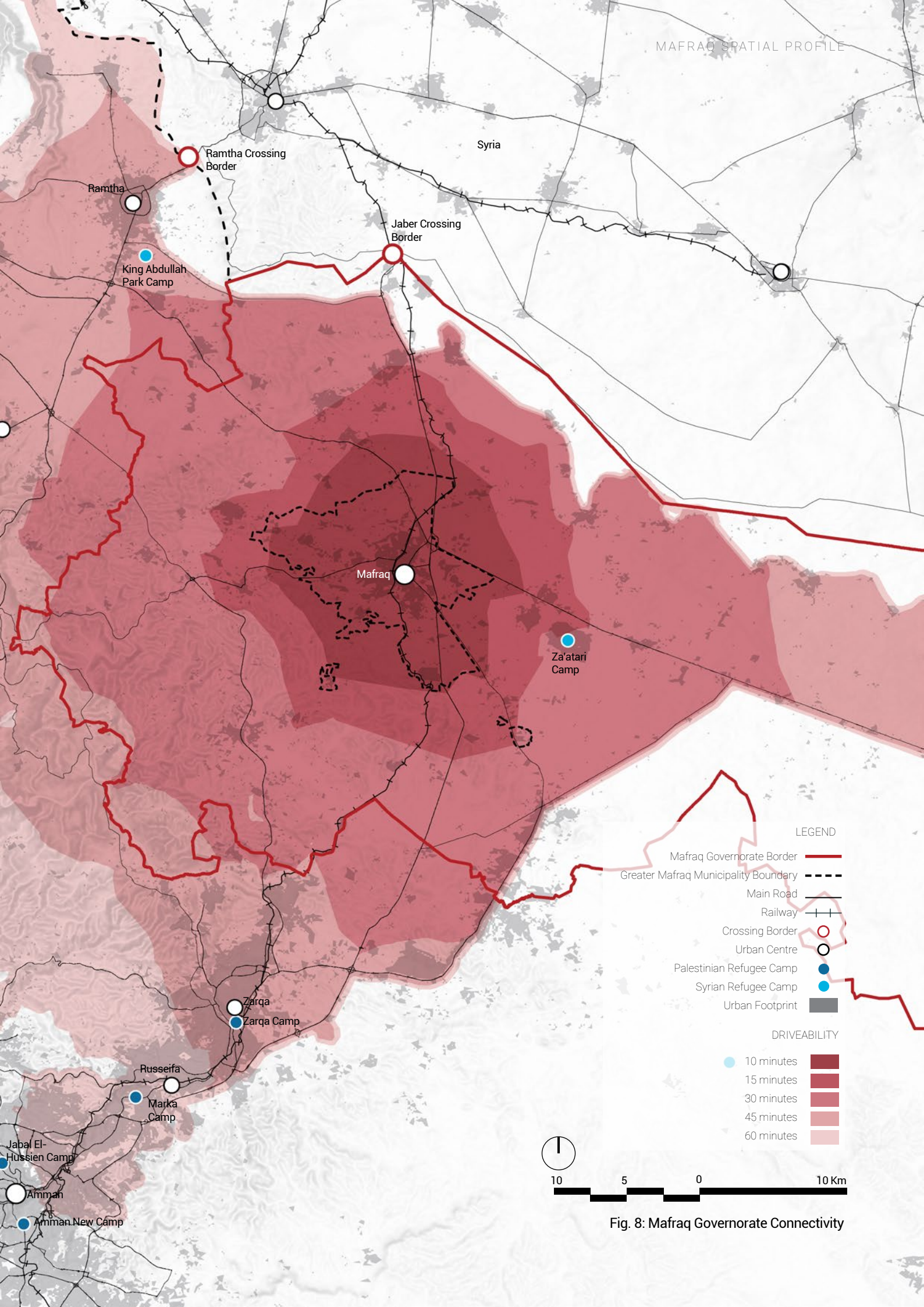
Mafraq boasts a comprehensive road infrastructure spanning 2,210 km, encompassing agricultural, rural, primary, and secondary roads. The predominant share is attributed to agricultural roads.²⁰⁰ The governorate’s strategic location and road infrastructure have boosted transportation activities and economic opportunities, facilitating trade and maintenance of vehicles.²⁰¹ The Jaber crossing saw significant daily truck traffic between Jordan and Syria in 2021.²⁰² Additionally, after the reopening of the Karama-Trebil crossing with Iraq, the volume of commercial trucks to Baghdad increased substantially.²⁰³

Within the Kingdom, there are 40 public bus routes that connect Mafraq Governorate with the other governorates. In 2020, the Director of the Land Transport Regulatory Commission announced plans to operationalise the New Mafraq Travel Complex, a transit bus station that was

developed 3 years prior but had not been operational. The complex can accommodate 300 public vehicles, including large, medium, and small buses, operating on 62 lines within Mafraq Governorate.²⁰⁴ As of 2021, interviews with key stakeholders reveal that the complex is currently operating at 50% of its capacity.²⁰⁵ However, all commercial shops within the complex remain closed due to an ongoing issue between LTRC and the GMM.²⁰⁶ The limited public transportation infrastructure is a challenge for the mobility and economic opportunities of Mafraq Governorate residents²⁰⁷, specifically women²⁰⁸. Buses are often irregular and new transportation links are needed²⁰⁹, especially to serve remote areas, which pose challenges to mobility within and around the governorate. Similar to many cities in the country, private vehicle dependency is prevalent in the Mafraq Governorate. It is projected that the number of private vehicles within the governorate will reach 50,376, which will amount to 127 vehicles per 1,000 inhabitants.²¹⁰



Roads network in Mafraq Governorate in 2018.
Source: MOPWH, 2018



LEGEND

- Mafraq Governorate Border
- Greater Mafraq Municipality Boundary
- Main Road
- Railway
- Crossing Border
- Urban Centre
- Palestinian Refugee Camp
- Syrian Refugee Camp
- Urban Footprint

DRIVEABILITY

- 10 minutes
- 15 minutes
- 30 minutes
- 45 minutes
- 60 minutes

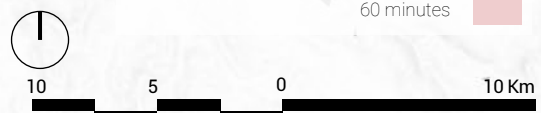
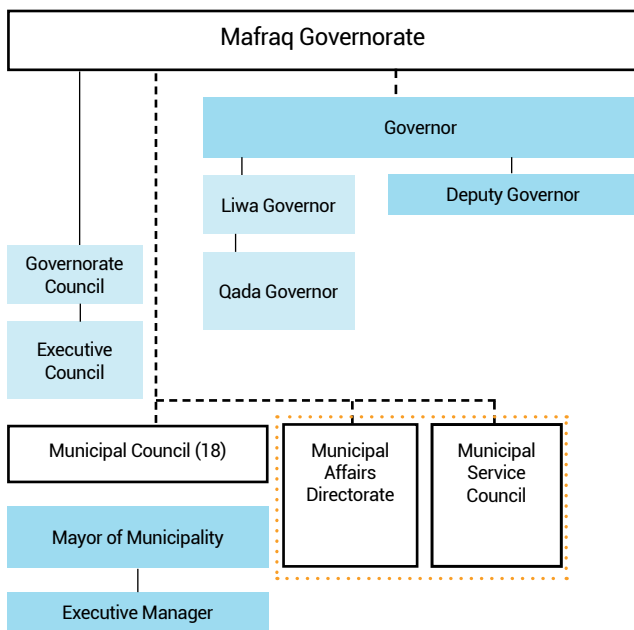


Fig. 8: Mafraq Governorate Connectivity

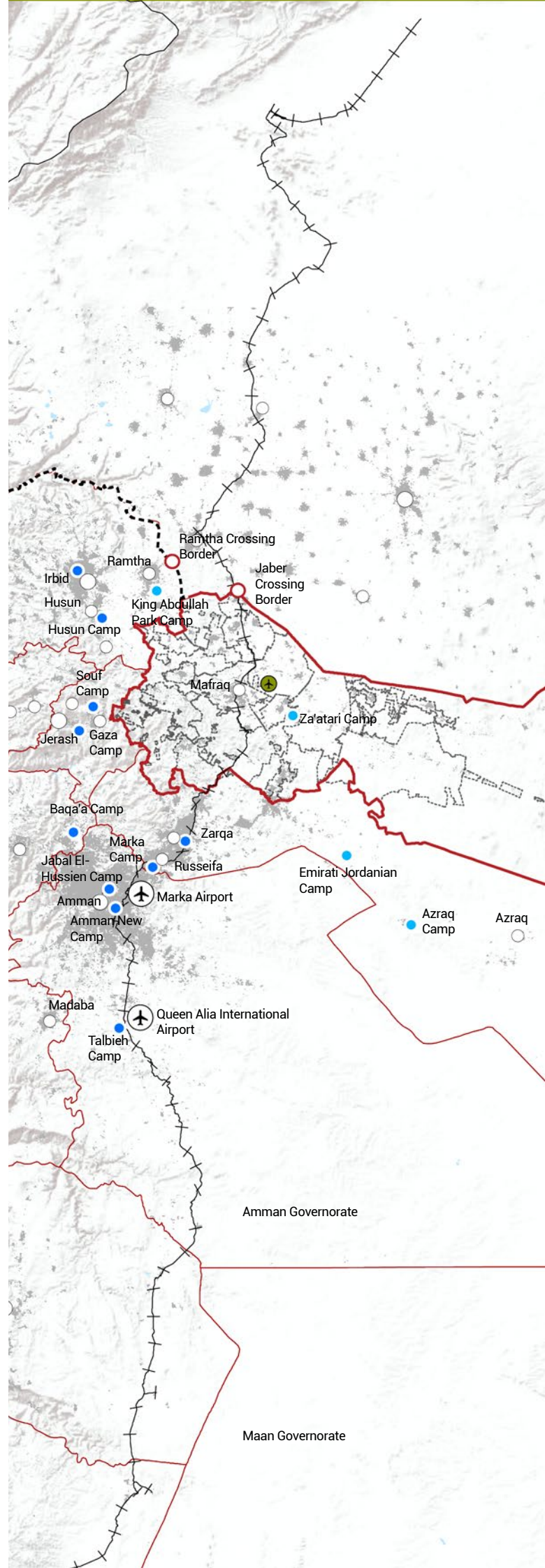
Regional Land Administration and Institutional Context

Mafrq Governorate was officially established in November 1985. It consists of four Liwas, ten Qadas, and eighteen municipalities.²¹¹ These divisions correspond to different institutions, and particularly three different divisions. The administrative boundaries outlined by the Ministry of Interior (MoI) include the Liwas and Qadas, which are under the administration of Mafrq Governorate. These divisions cover the entire area of the governorate, and are essential for the census, which is conducted by the Department of Statistics every 10 years. In terms of planning, the municipalities are mainly responsible for conducting planning activities, under the Ministry of Local Administration (MoLA). There are 18 municipalities within Mafrq Governorate, including the Greater Mafrq Municipality (GMM), also referred to as Mafrq City. Mafrq City is the administrative centre of Mafrq Governorate.

As for real estate services and land plotting, the Department of Lands and Survey divides the governorate into 2 directorates, 188 villages/urban areas, and 1382 basins.²¹² It is important to highlight that all the administrative boundaries described are not aligned, impacting decision-making processes, and planning activities within the governorate.



• • • Mandates for areas outside the municipal administrative boundaries



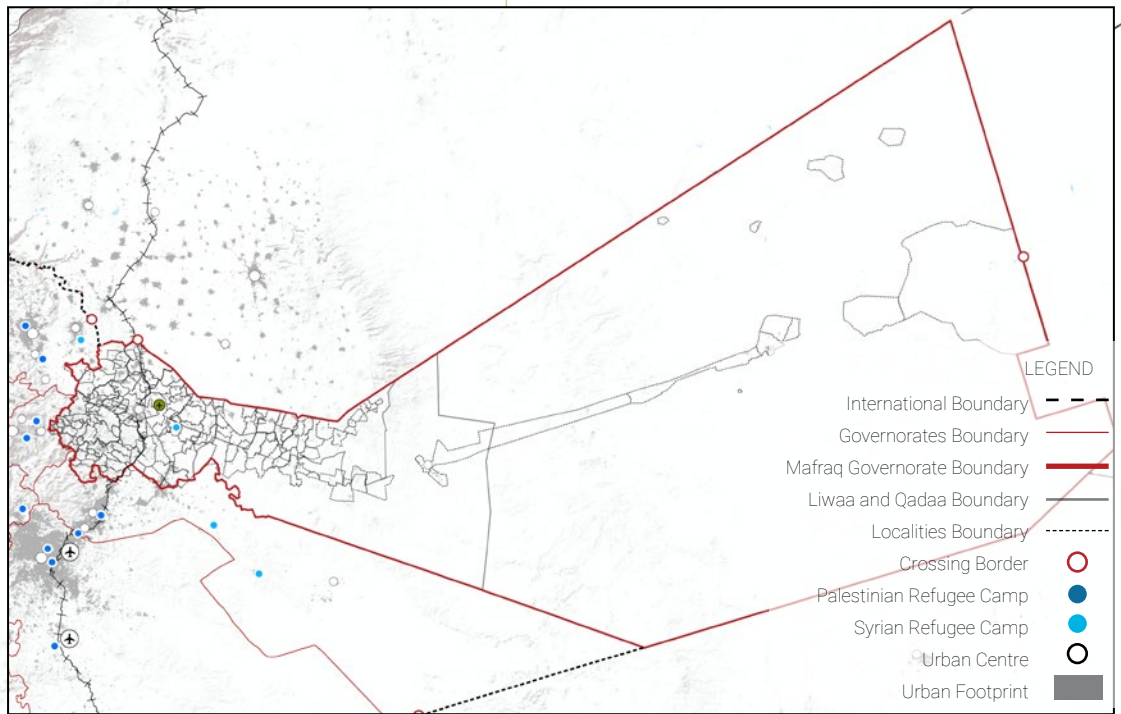


Fig. 9: Regional Land Administration and Institutional Context as Perceived by MOI

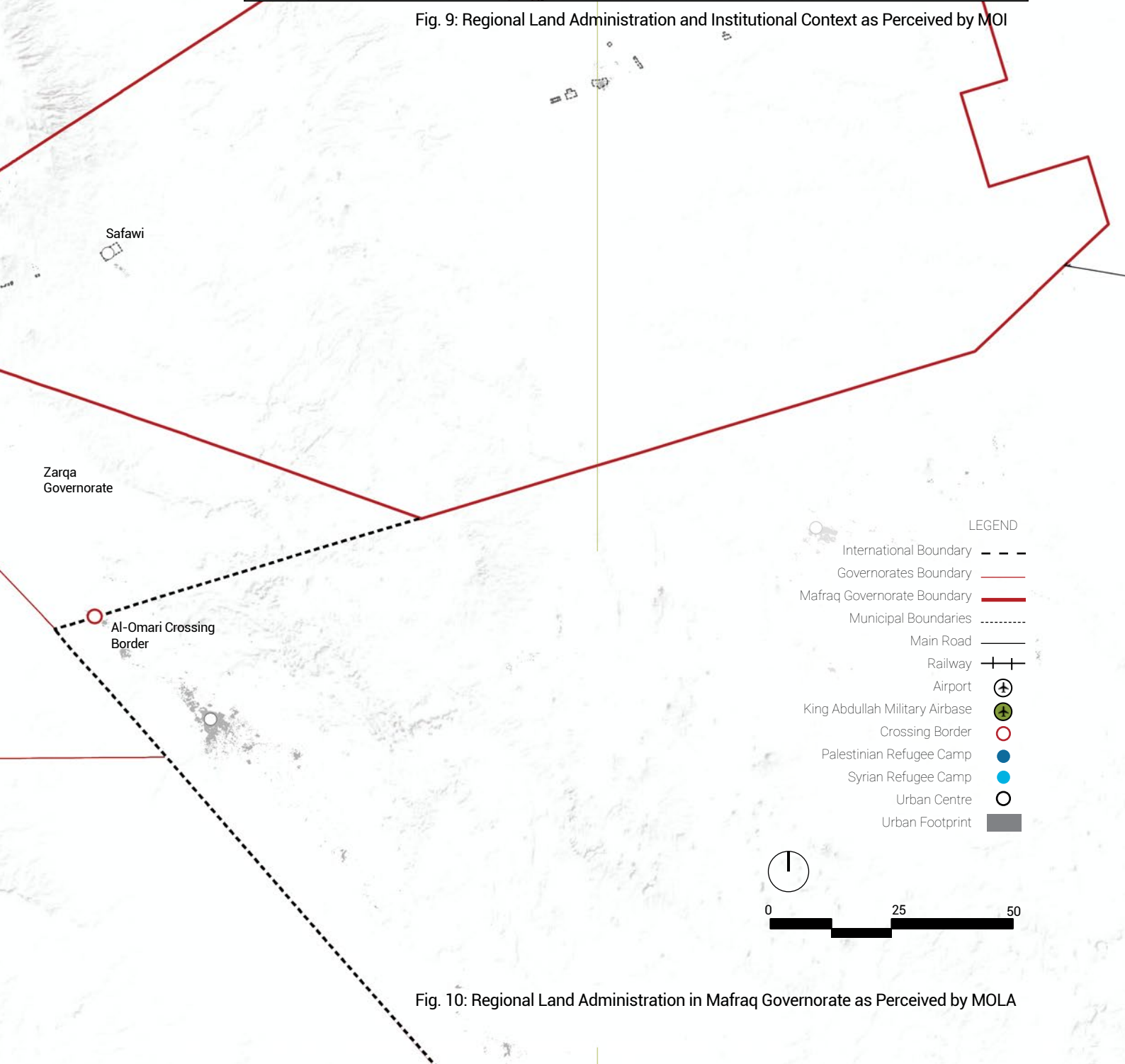


Fig. 10: Regional Land Administration in Mafraq Governorate as Perceived by MOLA

Regional Planning Context

The Strategic and Local Economic Development Plans for Municipalities within Mafraq Governorate 2020-2025²¹³

With the support of the Decentralization and Local Governance Project (CITIES), funded by USAID in Jordan, strategic and local development plans were prepared for multiple municipalities within Mafraq Governorate for the years 2020-2025. The plans cover various aspects such as vision, mission, core values, organizational structure, strategic goals, background, challenges, opportunities, SWOT analysis, and municipal projects to achieve those goals.²¹⁴ These plans were created through a participatory approach involving all relevant stakeholders and are used by the municipalities and Governorate Councils to define development indicators, priorities, time-lines, resource sharing, and budgetary needs. Each plan describes the socio-economic context of the municipality, compares it to the governorate and national data, and outlines strategic and local development goals along with corresponding operation plans. It's important to note that these plans do not address refugees' needs or their integration into communities.

Mafraq Governorate Development Plan 2023-2027 (Under Development)²¹⁵

A proactive effort is currently underway to formulate the Mafraq Governorate Development Plan, which spans from 2023 to 2027. This initiative is supported by the implementation of the Decentralization, Accountability, and Integrity at the Local Level (DAILL) program. Led by the United Nations Development Programme (UNDP) and funded by the European Union (EU), this program aims to enhance local governance and transparency. At the core of the plan lies the vision to provide "high-quality and highly competitive services to attract successful investments in various productive, service, and infrastructure sectors."²¹⁶ The principal strategic objectives encompass a spectrum of goals, including high-quality developmental services equitably distributed across all regions of Mafraq Governorate; qualified human resources and an aware local community; high competitiveness for productive economic sectors aligned with the relative advantage of the governorate; and robust infrastructure capable of contributing to attracting successful investments.

Regional Development Plan for Al Dhulail and Al Khalidiyah Sub-Districts²¹⁶

Funded by USAID and with the main beneficiary being the ministry of Local Administration, the regional development plan included three municipalities: Al Dhulail and Al Hallabat in Zarqa Governorate, and Al Khalidiyah in Mafraq Governorate. The drafting of the regional development plan considers the economic development, population growth,

land and property use patterns, environment and natural resources, employment, infrastructure, transport and road networks, archaeological and heritage areas, public services, open and green spaces, and investment areas. This plan has received initial approval from the Higher Planning Council and currently serves as the guiding development framework for the study area.

Mafraq Governorate Development Plan 2017-2019²¹⁷

The Mafraq Governorate Development Plan was led by the Ministry of Planning and International Cooperation, and included a national committee consisting of various ministries, as well as a local committee consisting of the governorates units, private sector, and community organizations. The plan presents several priority projects for the governorate in the sectors of tourism, trade, public works, housing and urban development, poverty and social development, and more. Details include the implementation timeline, responsible entities, and financing details.

Local Economic Development Strategy for Mafraq Governorate (2016-2018)²¹⁸

The International Labour Organization (ILO) developed this strategy as a response to the impact of the Syrian crisis on the Governorate's labour market and the need to address this. This strategy "presents a package of economic development plans that aim to tackle some of the labour market challenges brought about by the influx of Syrian refugees into northern Jordan." The objectives included: reviewing prior development strategies, plans, and policies from an employment perspective; systemizing approaches concerned with the development of impacted host communities in the period of 2016-2018 to create job opportunities, increase productivity, and ensure business growth through a system of strategic directives and goals; developing an action plan for the following year with the aim of unifying local efforts at the governorate level and building capacities to adapt to crises and achieve sustainability; and creating an approach to sustain and guide the work of the local development committee.

PROJECTS

The Jordan National Railway Project^{219,220}

The Long-Term National Transport Strategy Plan considers the development of a new railway network by 2030 to be of strategic importance to the transport sector in the country. In this regard, the Jordan National Railway Project will include three lines or "links" that aim to connect the key cities of Amman, Mafraq, and Zarqa, along with the Aqaba port and Shidiya phosphate mine, with a freight railway network. The Aqaba-Syria line will cross the Kingdom longitudinally, and pass through GMM to reach the Jordan-Syria border

in the Mafraq Governorate, while the Zarqa-Iraq link will pass through Mafraq Governorate latitudinally to reach its border with Iraq. This project is key in connecting Jordan with regional railway networks in countries within the GCC, Syria and Iraq, and from there to Europe and Asia.

Sabha Development Project in Mafraq Governorate²²¹

This project is a royal initiative implemented by The Hashemite Fund for Development of the Jordan Badia in the North-Eastern desert, across an area of 6,500 donums. The project has multiple components to enhance the socio-economic status of Badia communities (villages), including the cultivation of pomegranates and olives in addition to a communal nursery, which aims to improve the techniques and methods of producing seedlings and to produce high-quality seedlings of natural species that are able to better withstand the environmental challenges in the Jordanian Badia.

Municipal Services and Social Resilience Project (Ongoing)^{222, 223}

The Hashemite Kingdom of Jordan has secured funding from various donors, including the World Bank, for the Jordan Municipal Services and Social Resilience Project (MSSRP).

The MSSRP comprises of two main components:

(1) Municipal Grants for Service Delivery: This component provides annual grants to multiple Jordanian municipalities. During the initial round, 21 municipalities received these grants, and in the subsequent round, an additional 5 municipalities were added through the Innovation Fund (IF), with 9 of them in total located in the Mafraq Governorate. These municipalities include Za'atri and Mansheyyeh, Greater Mafraq, Hoshah, Sahel Horan, Sarhan, Sabha and Dafiane, Om Aljmal, Al Khalidiyah, and Ameer Al Hussein. These grants fund various projects to enhance services, infrastructure, and economic development. It's worth noting that the majority of these projects are focused on road infrastructure enhancements.

The IF endeavours to support demand-driven, multi-year projects that promote cooperation among municipalities. Additionally, it actively promotes partnerships with various organizations, including Community-Based Organizations (CBOs), Non-Governmental Organizations (NGOs), and the private sector, with the goal of enhancing service delivery and creating employment opportunities for both Syrians and Jordanians.

Among the IF selected projects, three are specifically located in the Mafraq Governorate, namely in Al Za'atari, Al Manshyeh, and Al Sarhan municipalities. These initiatives

involve the development of a sustainable agriculture area, the establishment of a sewing workshop for women, and the creation of an entertainment village, respectively.

(2) Institutional Development and Project Management:

This component focuses on strengthening institutional capacity, offering training programs, and providing technical support.

As of 2019, the MSSRP has made significant progress. It has impacted over two million beneficiaries, including Syrians. Through component 1, more than 400 sub-projects in 21 municipalities have already been completed.

Qudra 2 Programme: "Resilience for refugees, IDPs, returnees and host communities in response to the protracted Syrian and Iraqi crises"²²⁴

This regional programme is being implemented in Iraq, Jordan, Lebanon, and Turkey and aims to strengthen resilience for Syrian refugees, IDPs, returnees, and host communities in response to the protracted Syrian and Iraqi crisis through (1) education and protection, (2) employment promotion and income generation, (3) support to local governmental institutions and civil society organizations, and (4) cross-cutting social cohesion. In Mafraq Governorate, it supports six municipalities, including Rihab, Hoshah, Sarhan, Manshyat Bani Hasan, Basiliyeh and GMM to update and adjust needs assessments and Local Development Plans (LDPs) to ensure relevance to the current context. Furthermore, seven compactors for efficient waste collection were provided to the six municipalities by the end of year 2022. This initiative aims to enhance the effectiveness of their waste management public services.²²⁵

Increasing the resilience of both displaced persons and host communities to climate change-related challenges in Jordan and Lebanon (Ongoing)

This UN-Habitat project supported by the Adaptation Fund aims to effectively respond to climate change impacts and vulnerabilities, considering the context of the Syrian crisis in Jordan and Lebanon. The project focuses on concrete adaptation measures that cater to the needs of displaced persons and host communities, with a special emphasis on women and youth. It seeks to avoid tension over resources and employment opportunities. In Mafraq, the project's key components revolve around increasing resilience to climate change-related challenges for both displaced individuals and host communities. This includes strengthening municipal governments' capacity to manage scarcity

risks amid climate change and urban growth. Additionally, Climate Resilient Urban Master Plans will be developed to address specific needs. Moreover, the project will implement innovative water harvesting and irrigation options, like rooftop rain harvesting and grey systems, in public buildings to conserve and mitigate scarcity challenges. Enhancing knowledge and policies through a project knowledge management platform and Urban Observatories will further contribute to urban resilience. The project's ultimate goal is to create a sustainable and climate-resilient future for Mafrq, benefiting both local communities and displaced individuals in the region.

Flash Floods Risk Assessment and Hazard Mapping in Mafrq Wadi (Valley) in Jordan (Ongoing)

Funded by the NDC Partnership Project Assistance Program and implemented by UN-Habitat, the project aims to strengthen municipal institutional capacity to manage climate change impacts, especially related to urban water challenges (i.e. floods) by mainstreaming these aspects into spatial strategies / urban master plans and developing action plans. It involves assessing, prioritizing, and planning adaptation measures and interventions in Mafrq Wadi in partnership with the Greater Mafrq Municipality and stakeholders.

Feasibility Study, Detailed Design, Preparation of Tender Documents for the sewerage network and lifting station in Za'atari area, Mafrq²²⁶

Detailed design work for installing approximately 80km of piping to the sewerage network, has been completed. This will include 1,500 household connections in addition to a lifting station, as well as, the expansion of the Zaatari wastewater plant. The estimated cost of implementing the project is 13 million JOD (6 million for networks and lifting station and 7 million to upgrade the Za'atari WWTP).

Supply and Sanitation for Syrian Refugees and Host Community (Phase 7 and 8)²²⁷

The KfW funded project is analysing the water and sewerage network requirements of various areas within Mafrq Governorate, such as Al-Husseini, Al-Jundi, and Al-Hawakimi.

Supply and Sanitation for Syrian Refugees and Host Community (Phase 9 and 10)²²⁸

This stage of the KfW funded project includes the preparation of tender documents in order to conduct analysis of the sewerage network requirements of various areas within Mafrq Governorate, such as Balama and Prince Hamzah neighborhood.

Water Resource Management Programme (Phase 7)²²⁹

Phase 7 of the KfW funded programme will include the rehabilitation of the Basalt Aquifer (Azraq-Dhuleil Basin). This will include an analysis and rehabilitation of all underground wells in Mafrq Governorate. With an aim

to supply the northern governorates, including Mafrq, with drinking water.

Economic feasibility study for the upgrade of the Mafrq Wastewater Treatment Plant

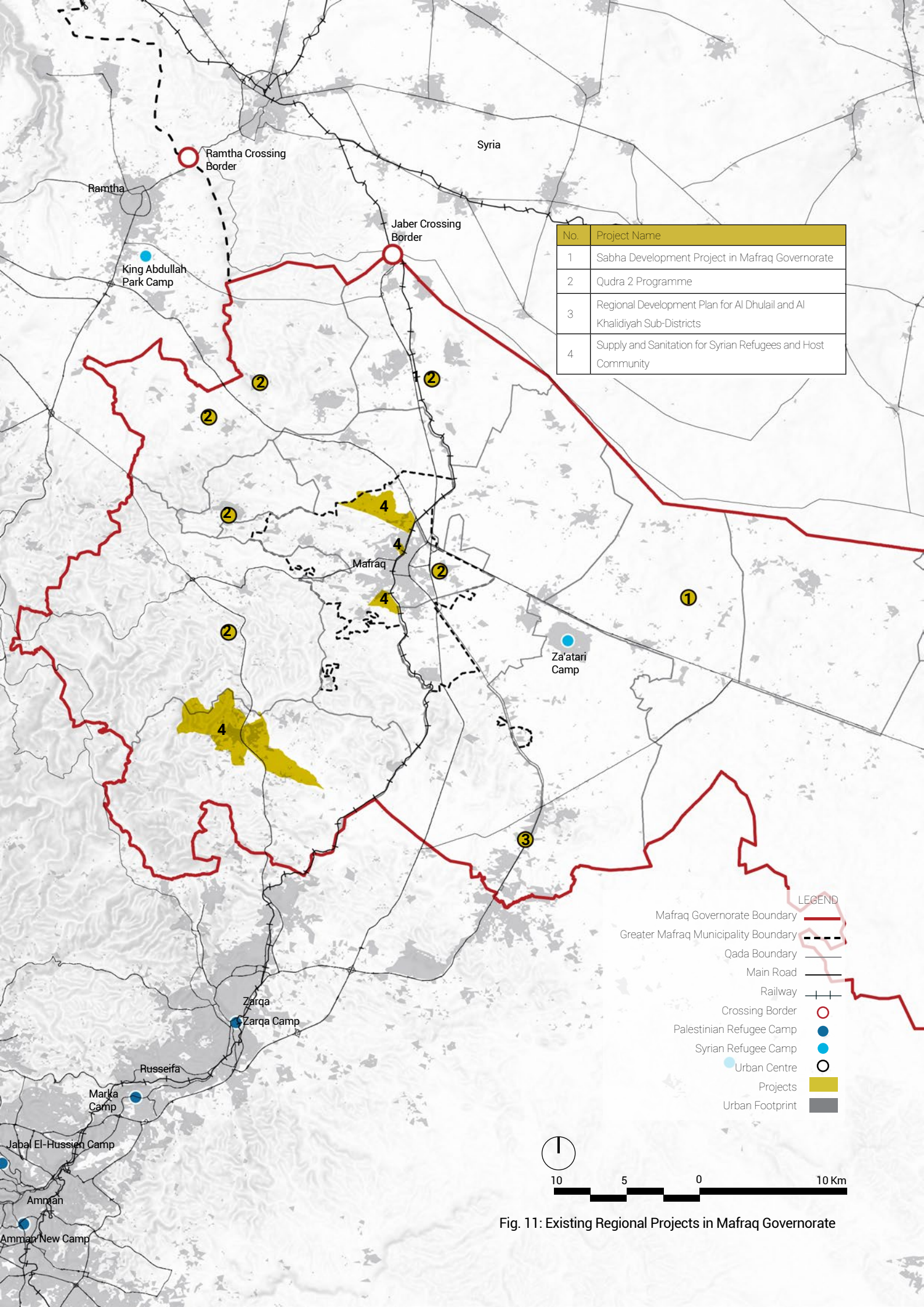
Future pipeline project, as part of the among the Building Water Infrastructure (BWI) programme funded by USAID.

Support to Livelihoods through Cultural Heritage Development²³⁰

With financial support from the European Union, UNESCO and the International Labour Organization (ILO) have partnered with the Jordanian Ministry of Tourism and Antiquities and the Ministry of Labour to launch the "Support to Livelihoods through Cultural Heritage Development" project. This initiative aims to address unemployment, promote tourism in northern Jordan, and foster self-sufficiency by offering short-term employment opportunities to both Jordanian citizens and Syrian refugees within the cultural heritage sector. The project's objective is to generate approximately 1,270 job openings for Jordanians and Syrians to participate in the restoration of six archaeological sites in northern Jordan, three of which are in Mafrq. These sites include Um Qais, Tabqat Fahel (Beila), and Beit Idis in Irbid, as well as Um Al-Sarab, Al-Fudain, and Rahab in Mafrq. In Mafrq alone, around 763 Jordanian and Syrian workers were employed for varying durations, ranging from 3 to 5 months, depending on the site's requirements. UNESCO has also reported that work permits were issued to Syrian workers as part of this initiative.

Responding to Protracted Displacement in Urban Areas (Research Under Development)²³¹

The International Institute for Environment and Development (IIED) is leading a study in four countries (Afghanistan, Ethiopia, Jordan, and Kenya) that examines the situations of refugees and internally displaced individuals (IDPs) in both urban areas and refugee camps. Historically, the response to displacement has largely focused on establishing camps, even though most displaced people now prefer urban living. This shift has been slow to influence research and policy discussions. In Jordan, IIED is collaborating with Hashemite University and the Greater Amman Municipality to explore urban approaches to prolonged displacement. The aim is to investigate how cities can promote self-sufficiency and integration for displaced individuals while benefiting host communities. The research focuses on Syrian refugees in Jordan, comparing conditions in Za'atari Camp with those in Amman's urban areas, with a particular emphasis on addressing the unique challenges faced by refugees. Ultimately, the goal is to propose sustainable solutions that improve the lives of refugees, view their presence as an opportunity for development, and cater to the needs of both displaced individuals and the urban poor.



No.	Project Name
1	Sabha Development Project in Mafraq Governorate
2	Qudra 2 Programme
3	Regional Development Plan for Al Dhulail and Al Khalidiyah Sub-Districts
4	Supply and Sanitation for Syrian Refugees and Host Community

LEGEND

Mafraq Governorate Boundary	
Greater Mafraq Municipality Boundary	
Qada Boundary	
Main Road	
Railway	
Crossing Border	
Palestinian Refugee Camp	
Syrian Refugee Camp	
Urban Centre	
Projects	
Urban Footprint	

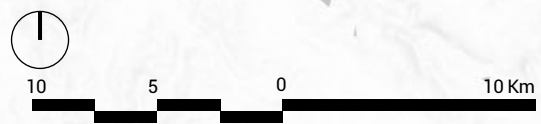


Fig. 11: Existing Regional Projects in Mafraq Governorate

Demographics

Based on the population estimates for the end of 2022, Mafraq Governorate constitutes 5.8% of Jordan's total population, reaching 651,100 residents. 453,500 of the population is considered as urban (around 70%) and the rest as rural, whereby 'urban' is defined as including localities with a population of 5,000 or more.

With the Northern Badia (desert) region covering much of the Governorate's area²³², Mafraq Governorate is the second least densely populated Governorate in Jordan²³³, with a population density of 24.5 people/km².²³⁴ Agglomerations and communities are spread out across the governorate's large area, which makes providing different services to all populations costly.²³⁵ However, as the majority of the governorate is uninhabited, the actual population density in urban areas is expected to be much higher.

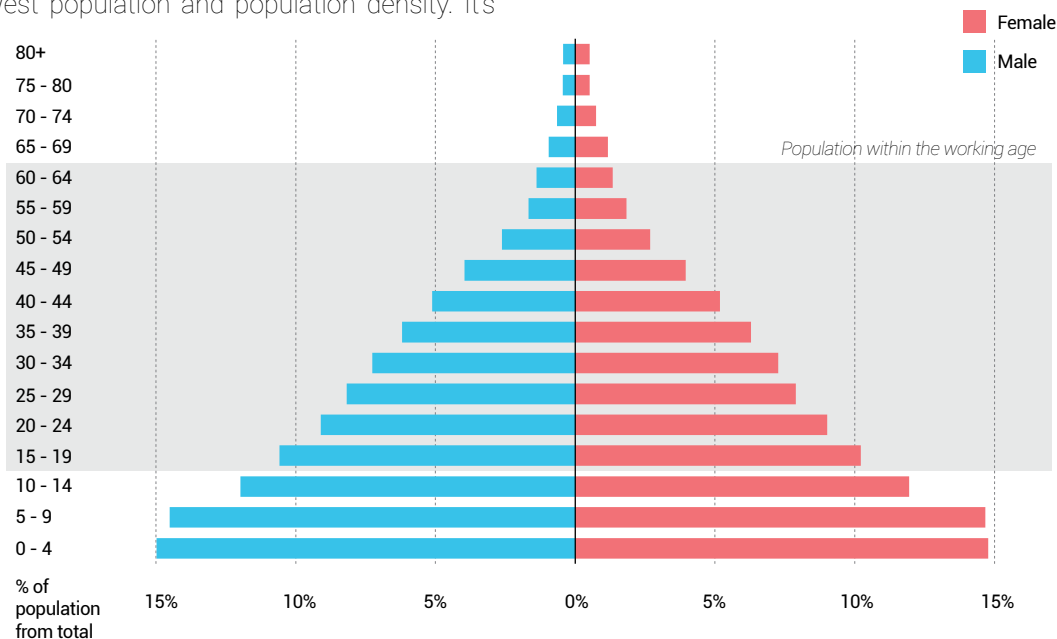
The census conducted by the Department of Statistics follows the administrative boundaries of the Ministry of Interior, using the Liwa boundaries and not the municipalities. The Liwas with the highest populations respectively are: Northwestern Badia; Mafraq Qasaba (which covers Greater Mafraq Municipality); and Northern Badia. Za'atari Refugee Camp is located within the Northwestern Badia Liwa. The Liwa of Ruwaisid has the lowest population and population density. It's

also considered one of the 6 poverty pockets within the governorate, with the highest poverty rate, due to the low development, service, and socioeconomic index.²³⁶

Approximately 55.9% of the governorate's population falls within the age range of 15 to 64, about 41.4% are under the age of 15, while the remaining 2.7% are 65 years and over.²³⁷ Females make up approximately 48.2% of the total population.²³⁸ Moreover, around 61% of Mafraq Governorate's inhabitants are under the age of 25, leading to increased demands on educational resources and contributing to a higher dependency rate.²³⁹ Overall, the dependency rate in Mafraq Governorate reaches 79%, which is higher than the national rate of 61.4%. This requires careful planning for the future.²⁴⁰ The average household size in Mafraq Governorate is 5.2 individuals,²⁴¹ higher than the national average of 4.8.

Based on the 2015 census, Mafraq, along with the northern governorates of Irbid and Ajloun, accommodate a high ratio of people with concerning, severe, or absolute disabilities reaching 3%, with no significant difference between males and females.

In regard to the community structure, it mainly consists of Bedouin tribes and generally depends on kinship ties.



Population pyramid of Mafraq Governorate in 2017 (DoS data)

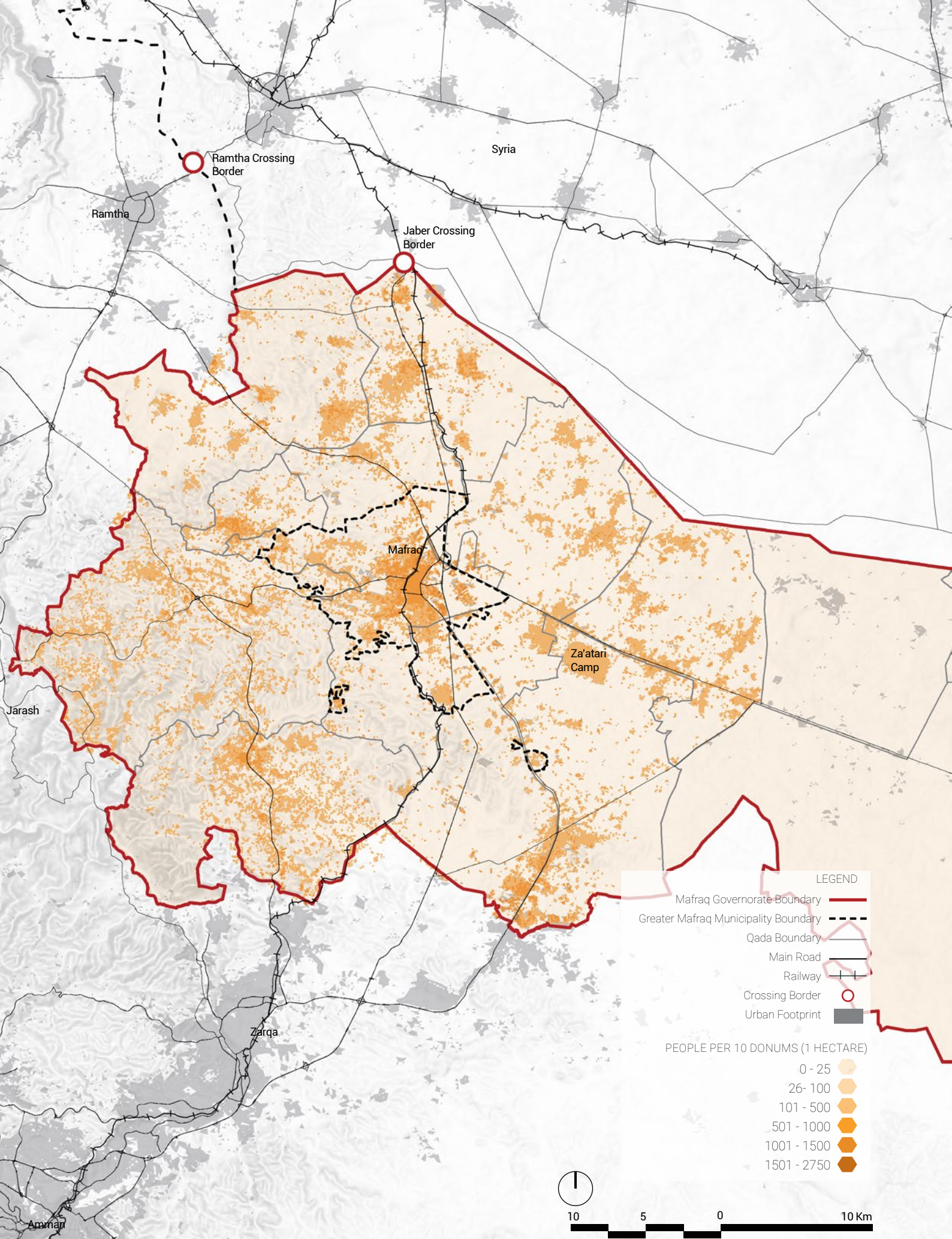


Fig. 12: Population Density

Refugee Regional Context

After Amman and Irbid, Mafraq Governorate is the third largest area of responsibility regarding off-camp population of concern.²⁴² According to the 2015 census, the total number of Palestinians, Iraqis, and Syrians in Mafraq governorate is 217,023 (50.6% are females).²⁴³ Mafraq Governorate was one of the most affected Governorates following the Syrian Crisis in 2011. In 2013, it was reported that the governorate's population had nearly doubled due to the influx of Syrian refugees.²⁴⁴ Moreover, in 2022, based on a survey conducted by OCHA and IOM, the largest geographical concentration of Vulnerable Out-of-Reach Communities population (27%) was in Mafraq.²⁴⁵ Notably, Mafraq Governorate is home to the largest Syrian refugee camp worldwide, a testament to the magnitude of the humanitarian challenge it faced during this critical period.

Refugee Demographics

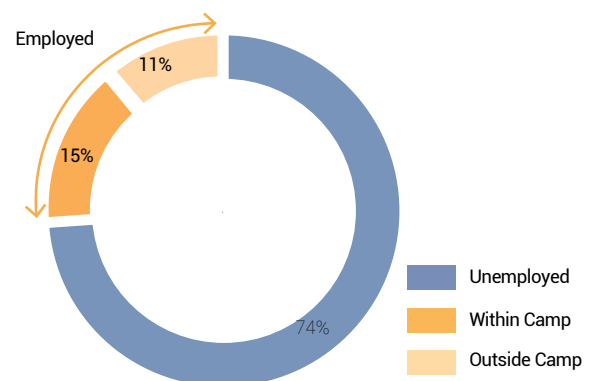
UNHCR reports 169,116 registered Syrian refugees in Mafraq Governorate, which is 25.9% of the governorate's population.²⁴⁶ This accounts for 25.6% of the total registered Syrian refugee population in the country, which is the second-highest percentage after Amman Governorate. Nevertheless, due to the proximity to the Syrian border, it is assumed that this number is higher, as refugees may have crossed into the country without formally registering.²⁴⁷ Approximately 11.7% of the country's registered Syrian refugees reside in the governorate, outside of camps, while 11.2% specifically live in Za'atari Refugee Camp.²⁴⁸ As for Palestinian refugees, according to the 2015 census, Mafraq Governorate hosts approximately 8,435 individuals displaced from Palestine. With respect to Iraqi refugees, the total number is estimated to be around 934 individuals.²⁴⁹

The majority of refugees in Mafraq Governorate (59%) live in rural areas, while the remaining (41%) reside in urban areas.²⁵⁰ Based on disaggregated data on refugees per Liwa, the majority of the refugees are concentrated in areas within Greater Mafraq Municipality (GMM). This influx has put significant pressure on the resources, public services, and infrastructure within the municipality and across the governorate.²⁵¹ Consequently, tensions have escalated between the host communities and Syrian refugees. The primary root cause of these tensions is the strain on local resources. Additionally,

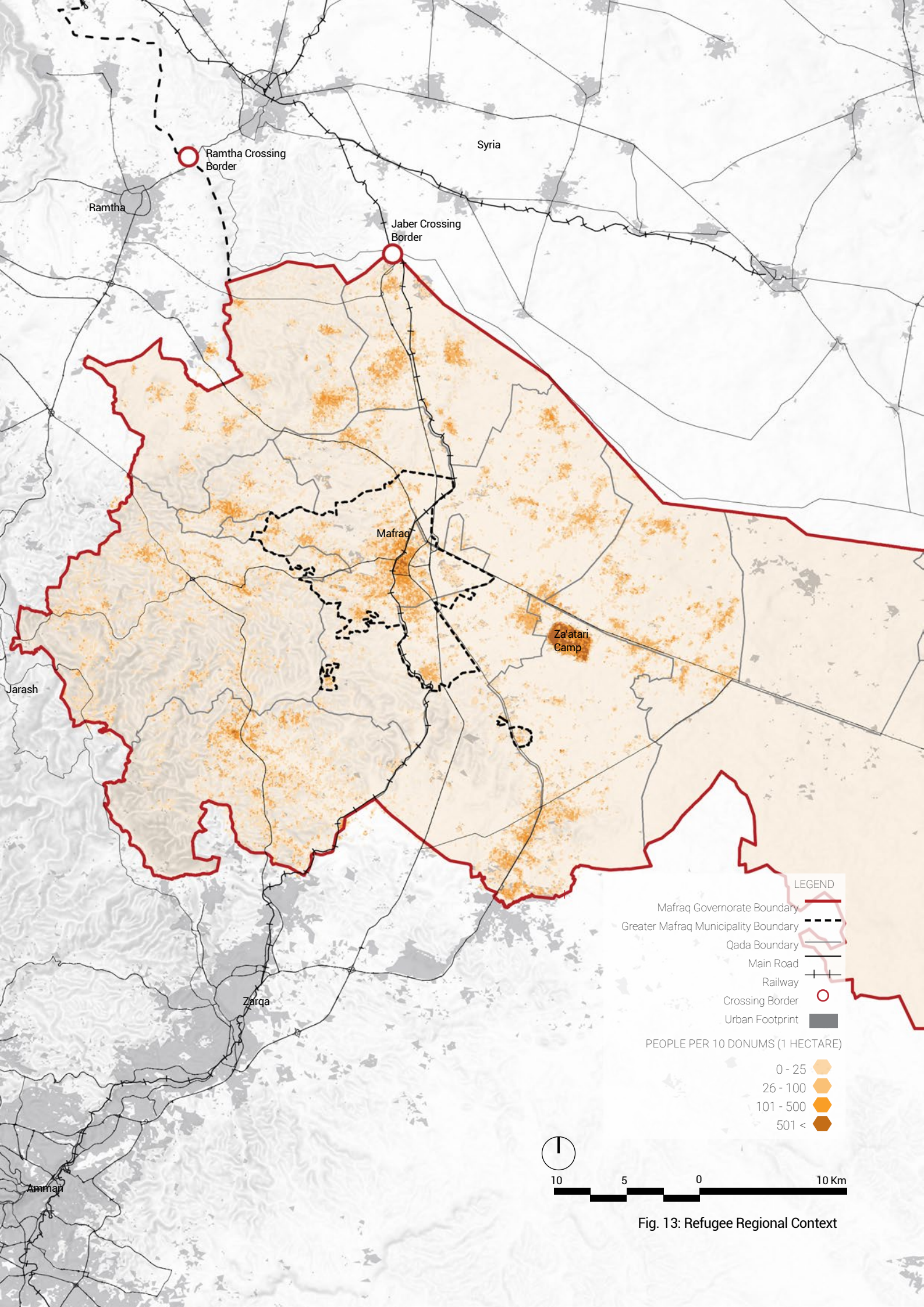
potential friction points have emerged due to housing challenges, competition for jobs and labour exploitation, municipal service constraints, and cultural and religious differences.²⁵² Additionally, of the 2 percent of Syrian refugees in Jordan living in impoverished housing such as tents or huts, the majority live in Mafraq.²⁵³ Given that the majority of refugees in Mafraq Governorate are Syrians, the map highlights the densest concentration of refugees in the city center of the Greater Mafraq Municipality and the Za'atari Refugee Camp.

Refugee Employment

Employment is a source of tension between the refugee population and the host community across the Mafraq Governorate. With limited opportunities and possible informal employment due to no work permits, there have been complaints on Syrian employment rights and the consequent feelings of dis-empowerment. Syrian Refugees in Mafraq Governorate contributed to the commercial and economic activity of the governorate, especially within the food sector, working in restaurants and sweet shops. It is reported that there have been 50 new commercial shops registered in the governorate under a variety of sectors since the refugee influx.²⁵⁴ While the majority of Syrian refugee households in Jordan live below the Jordanian poverty line, the median yearly household income in Mafraq is significantly lower than other governorates hosting refugees at 1,000 Jordanian Dinars.²⁵⁵ Regarding employment opportunities within the Za'atari camp, the Za'atari Office of Employment has issued 14,790 work permits.²⁵⁶ By the end of February 2023, there were around 2,500 active work permits in the database, which represents 7% of the camp's working population.²⁵⁷ 10% of these active permits are for females.²⁵⁸



Employment Status Among Za'atari Camp Residents
Source: Economy of Za'atari and Azraq Camps, NRC, 2023



LEGEND

- Mafraq Governorate Boundary
- Greater Mafraq Municipality Boundary
- Qada Boundary
- Main Road
- Railway
- Crossing Border
- Urban Footprint

PEOPLE PER 10 DONUMS (1 HECTARE)

- 0 - 25
- 26 - 100
- 101 - 500
- 501 <

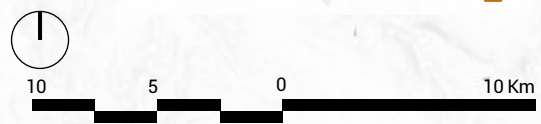
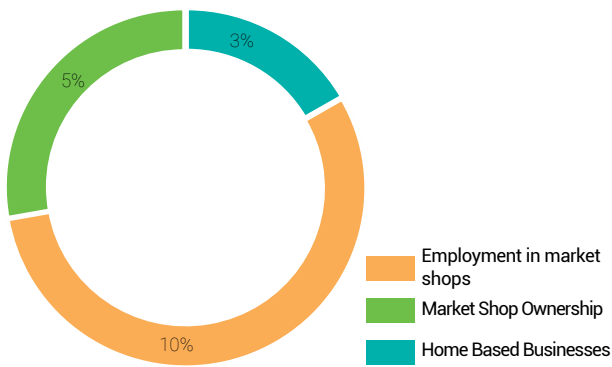


Fig. 13: Refugee Regional Context

Additionally, in Za'atari Refugee Camp, the entrepreneurship of camp residents is exemplified through the 'Sham Elysees,' a 3-kilometer-long market place comprising approximately 1,800 shops,²⁵⁹ where businesses lack formal ownership but thrive by focusing on local needs and priorities, showcasing an adaptability that aligns with the camp residents' necessities.²⁶⁰ There is constant trade between shopkeepers in the camp and Jordanian suppliers/businesses in the Greater Mafraq Municipality, with both parties benefiting from this economic relationship.²⁶¹



Percentage of in-camp workers in Za'atari Camp
Source: Economy of Za'atari and Azraq Camps, NRC, 2023

Za'atari Refugee Camp

Za'atari Refugee Camp, the largest Syrian refugee camp in the world that covers an area of 5.4 km²²⁶², is located in Mafraq Governorate, specifically in the Za'atari Municipality, near the Eastern boundaries of the Greater Mafraq Municipality. It was first opened on the 28th of July, 2012, providing refuge to Syrians escaping the Syrian War that erupted in March 2011. The Camp is jointly managed by UNHCR and the Syrian Refugee Affairs Directorate (SRAD).²⁶³ Of its 83,546 population²⁶⁴, approximately 54% of people living in Za'atari Camp are children, 43% are between the ages of 18-49 years old, 18% are under the age of 5 years old, and 5% are people with disabilities.²⁶⁵ The average household size is 5.5 persons²⁶⁶, with 1 in 3 households headed by women.²⁶⁷ While surveys have found that most camp residents hope to return to Syria, there is a recognition that the situation in Syria is not safe enough for this return.²⁶⁸ Za'atari Camp has transitioned from tents into over 26,000 prefabricated shelters, which include a latrine and kitchen, and 95% of which have exceeded

the 6-year lifespan and are in need of maintenance or replacement. However, the maintenance budget can only cover 4% of these caravans.²⁶⁹ Around 3,000 informal businesses have been operating in the camp.²⁷⁰

Inside Out the Refugee Camp: Unravelling the Impact on Surrounding Cities

The presence of a refugee camp can cast a profound influence on the dynamics of the cities situated in its proximity. While the camp itself serves as a temporary haven for displaced individuals and families, its effects ripple far beyond its boundaries. As refugees seek refuge and attempt to rebuild their lives, their interactions with the surrounding urban areas can bring both challenges and opportunities. A trend has been identified whereby younger and working-aged men have been migrating to surrounding cities, such as Mafraq City, for employment opportunities and simpler work permit application processes. This movement has slowed in recent years, possibly due to the transition to more permanent shelters and infrastructure.²⁷¹ Nevertheless, there continues to be informal movement between the camp and surrounding communities during 'working hours'. Based on the various interviews and discussions conducted throughout the development of this spatial profile, it is estimated that a maximum of 8,000 refugees- including those with and without official work permits- unofficially commute from the camp to nearby cities for formal and informal work opportunities on a daily basis. At the same time, difficult living situations for refugees outside of the camp have resulted in the return or migration to the camp from host communities.²⁷²

The map explores the historical urban growth of the cities that are in close proximity to the Za'atari Refugee Camp. Notably, there's evident urban growth in Mafraq City, Za'atari Village, and along the connecting main road, known as "Baghdad International Highway," extending towards the camp. This illustrates how the interplay between the dynamics within these cities and camp contributes to reshaping the surrounding urban landscape.

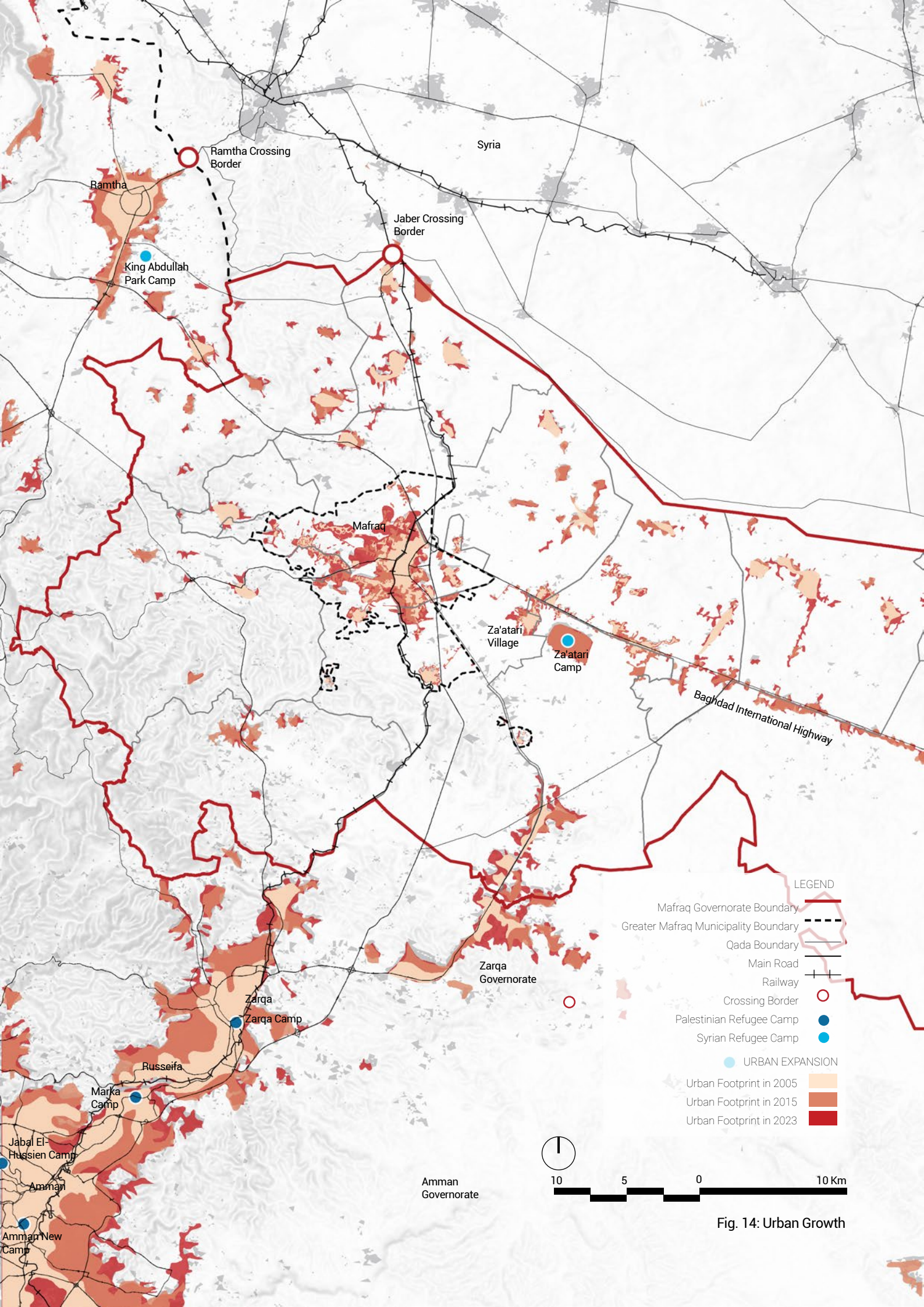


Fig. 14: Urban Growth

Regional Infrastructural Access

Water

Mafrāq has experienced a significant 40% increase in water demand since the onset of the Syrian crisis in 2011.²⁷³ This increase poses a substantial challenge, as it strains the already limited resources in the governorate.²⁷⁴ The delivery of water to citizens' homes in Mafrāq heavily relies on ground wells.²⁷⁵ Unfortunately, the ground level has recently plummeted to almost 500 meters in certain areas of the governorate, mainly due to the extensive drilling of wells on the Syrian side of the border.²⁷⁶

Household water consumption constitutes a substantial 95% of the total usage, while the remaining 5% serves non-household purposes, including industrial and commercial activities. Around 45% of the governorate's residents are connected to the public water network. However, only 29% of the governorate's housing units rely on the public network as their main source of drinking water, the majority at 49% use mineral water as their main source, and 13.3% use a water filter.²⁷⁷ As for refugees, only 10% rely on piped as the main source of drinking water, while 82% of Syrian refugee households rely on filtered water, 4% rely on bottled water, 2% rely on a tanker truck, and 3% rely on a well.²⁷⁸ In 2017, UNICEF and their WASH partners were delivering 35 liters of water per person per day in the Za'atari Refugee Camp, through free trucking, which is the primary source of drinking water for 67.8% of camp residents.²⁷⁹

Yarmouk Water Company manages the systems in the northern governorates, including Mafrāq. These systems face challenges due to outdated distribution networks without pressure zoning, leading to Non-Revenue Water (NRW) - refers to both tangible losses from breaks or leaks in water distribution infrastructure (like pipes and reservoirs) and intangible losses in the commercial domain, including meter reading inaccuracies, data management complexities, and illegal water usage. Additionally, the majority of house connections are outdated, contributing to significant leakage issues in the tertiary system. In the year 2023, NRW levels exhibited variations across the governorates, with Mafrāq recording the highest percentage at approximately 67.4% among the northern governorates of Jordan.²⁸⁰ Overall, there are challenges with access through the public water network.

Sewerage and Wastewater

The sewerage network currently serves only 17% of the total population in the governorate. Expanding the coverage to include new unserved areas by connecting them to the existing transfer sewer may present challenges due to the limited capacity of the current system.²⁸¹ The remaining 83% rely on septic tanks or other means of waste disposal, such as latrines. In terms of wastewater, Mafrāq Governorate has 2 centralized Waste Water Treatment Plants (WWTP) excluding the one located in Za'atari Refugee Camp. Mafrāq's WWTP, situated approximately 6 km north of the city, employs stabilization ponds for waste water treatment on a 37-hectare (ha) site. It has been upgraded by USAID transforming it into a more efficient facility with a capacity of 6,550 m³ per day through simple, low-tech enhancements. This upgraded design is projected to effectively serve Mafrāq until 2025, representing a significant improvement in waste management.²⁸²

The urgent issue in Mafrāq revolves around its deteriorating water and sewerage networks, demanding immediate attention for efficient management and distribution.

Electricity and Energy

The Irbid Electricity Company (IDECO) is responsible for supplying electricity to Mafrāq Governorate. Mafrāq Governorate also hosts several renewable energy projects, contributing over 2% of the nation's power capacity.²⁸³ Approximately, 73% of the population at regional level are connected to the electricity network. Notably, the region houses the largest solar plant in a refugee camp – the Za'atari Refugee Camp Solar PV Park. Established in 2017 on the camp's outskirts, it features 40,000 photovoltaic panels, providing clean, extra power to Syrian refugees in the camp.²⁸⁴

Solid Waste Management

In 2022, Mafrāq Governorate generated approximately 3,059,517 tons of solid waste.²⁸⁵ Al Hussainyyat dumpsite is the main final disposal site serving Mafrāq Governorate. Moreover, Mafrāq Governorate is served by three additional dumpsites: New-Ruwashed, Al-Safawi, and Al Badiyah Al Shamaliyah. However, Al Akaider landfill, which is the largest dumpsite in the Northern region of the country, is located within Mafrāq Governorate on the main road connecting Mafrāq Governorate with Irbid Governorate.²⁸⁶

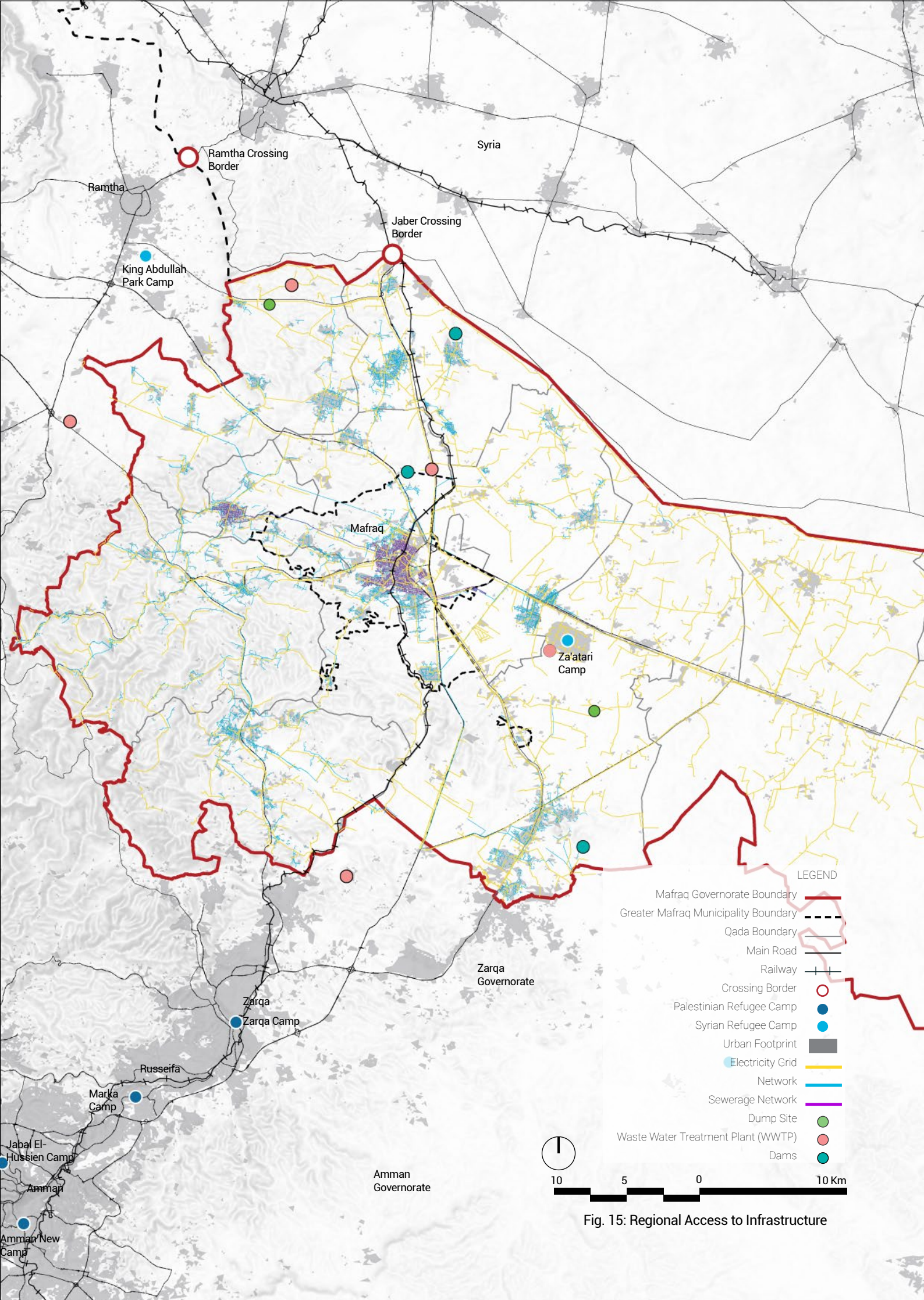
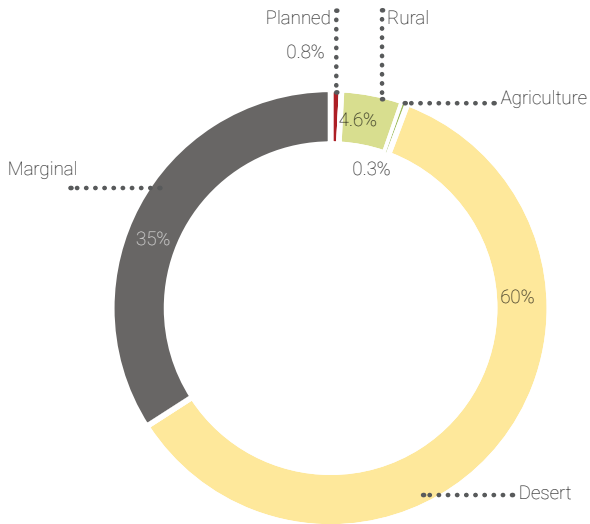


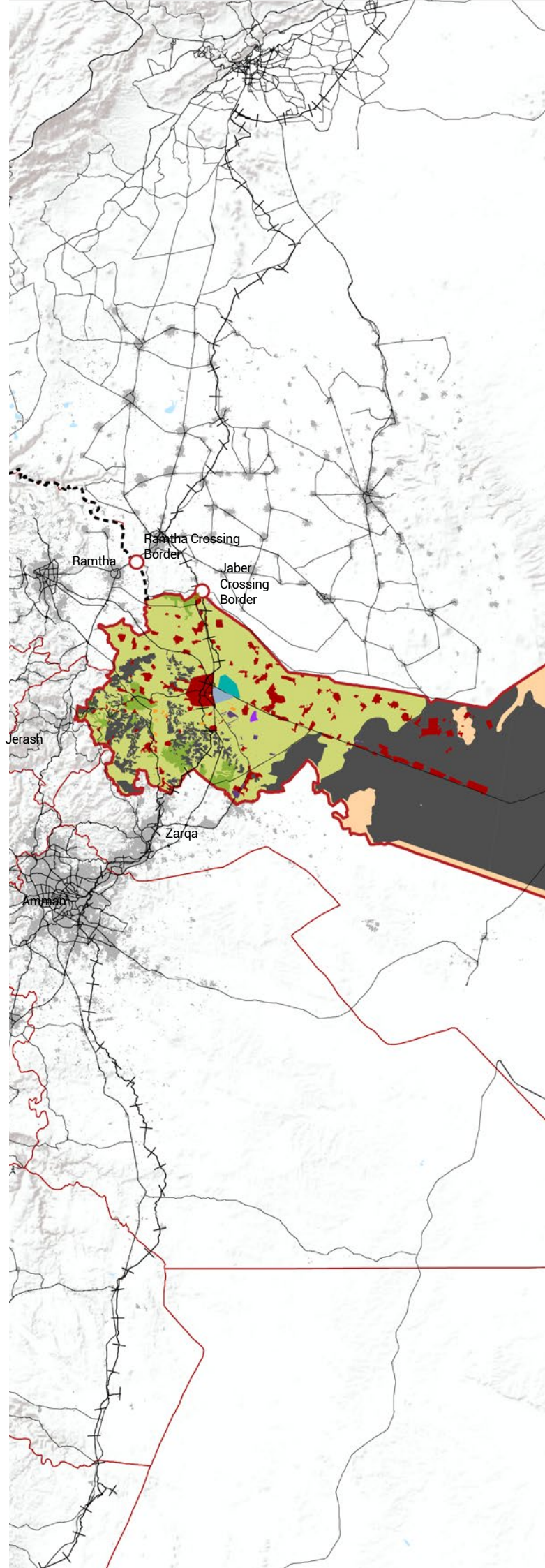
Fig. 15: Regional Access to Infrastructure

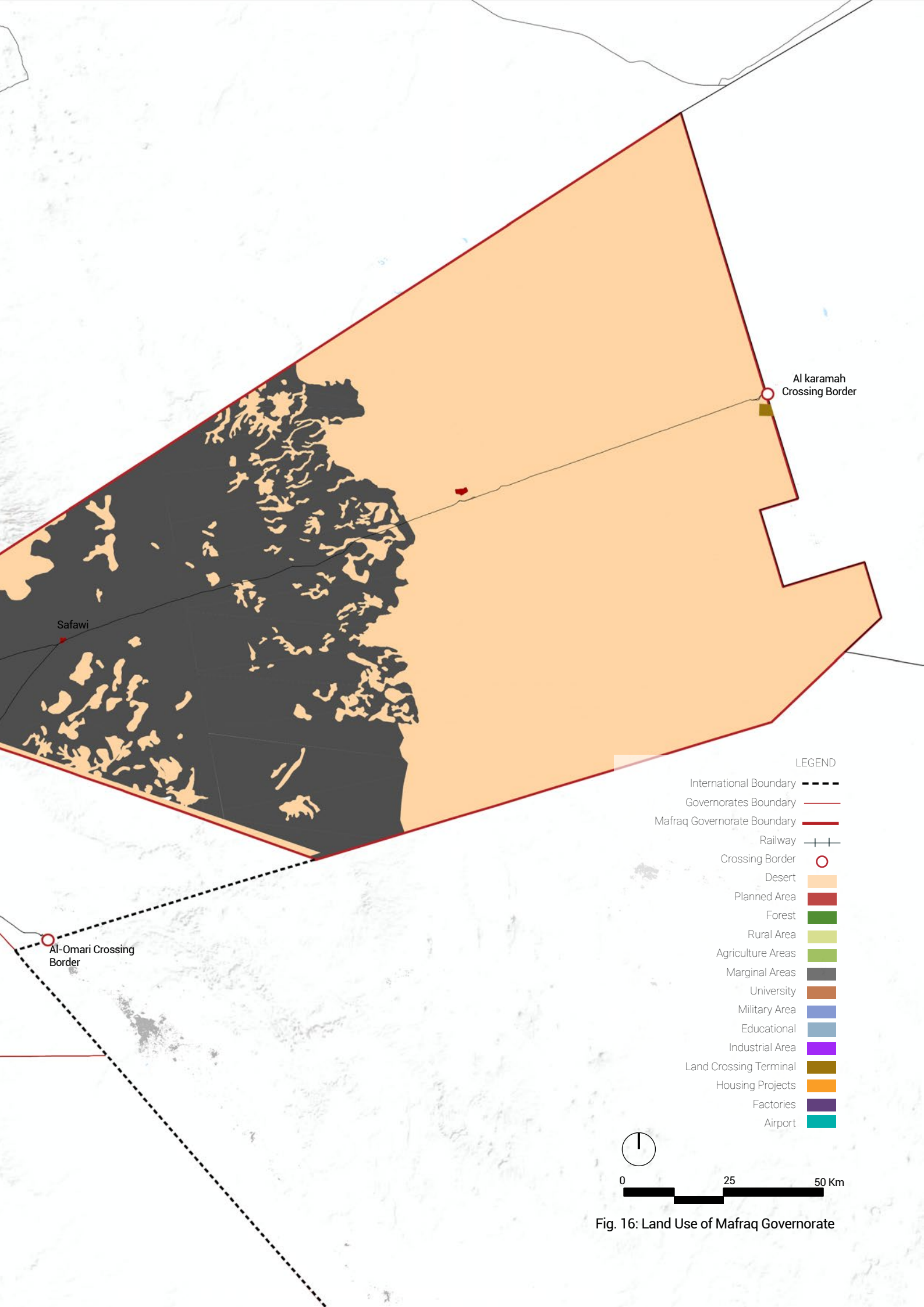
Land Use

According to the national level land use map developed in 2007 by the Ministry of Local Administration, the majority of the land cover in Mafraq Governorate (approximately 60%) is classified as desert areas, followed by marginal areas at 35%, rural areas at 4.6%, planned areas at 0.8%, and agriculture areas at 0.3%. The planned areas identified are mostly located within the Mafraq Qasabah Liwa, with some areas scattered on the northern regions of the governorate. With the arrival of Syrian refugees, the government intended to set up refugee camps separated from the urban areas in order to reduce demand on urban infrastructure. Za’atari Refugee camp was developed on land classified as rural area. It’s noteworthy to mention that MOLA is presently in the process of updating this land-use map.



Classification of land in Mafraq Governorate
Source: MoLA, 2007





LEGEND

- International Boundary - - - - -
- Governorates Boundary ———
- Mafraq Governorate Boundary ———
- Railway —+—+—+—
- Crossing Border ○
- Desert ■
- Planned Area ■
- Forest ■
- Rural Area ■
- Agriculture Areas ■
- Marginal Areas ■
- University ■
- Military Area ■
- Educational ■
- Industrial Area ■
- Land Crossing Terminal ■
- Housing Projects ■
- Factories ■
- Airport ■



0 25 50 Km

Fig. 16: Land Use of Mafraq Governorate

Natural Resources

Agricultural Sector

Mafrāq features a significant tract of cultivable land, spanning a minimum of 1,700 donums, equivalent to around 20% of the country's total cultivable land. This land resource possesses the inherent capacity to catalyse agricultural investment and emerge as a pivotal reservoir of production inputs for the food industry sector. The Governorate serves as Jordan's second food basket, exporting to numerous countries worldwide and meeting the local market demands in other governorates with a variety of crops, including summer vegetables, fruits, and olives. Notably, the Governorate stands as a significant contributor to the tomato supply, boasting substantial cultivation areas for this crop. In fact, the Governorate's tomato plantations account for an impressive 18% of the nation's total tomato cultivation acreage. This achievement propelled Jordan to secure its place as the world's fourth-largest exporter of fresh tomatoes.²⁸⁷ Moreover, Mafrāq has the highest cumulative livestock presence at 24% of the total in-country livestock population. The Governorate accounts for a substantial 28% of the total sheep within the country.²⁸⁸

Ground Water

The Governorate is characterized by its wealth in ground water, ranking second in the number of wells.²⁸⁹ There are 440 agriculture artesian wells, which constitute 75% of Jordan's stock, to maintain the agricultural production in the Governorate.²⁹⁰

Natural and Mineral Resources

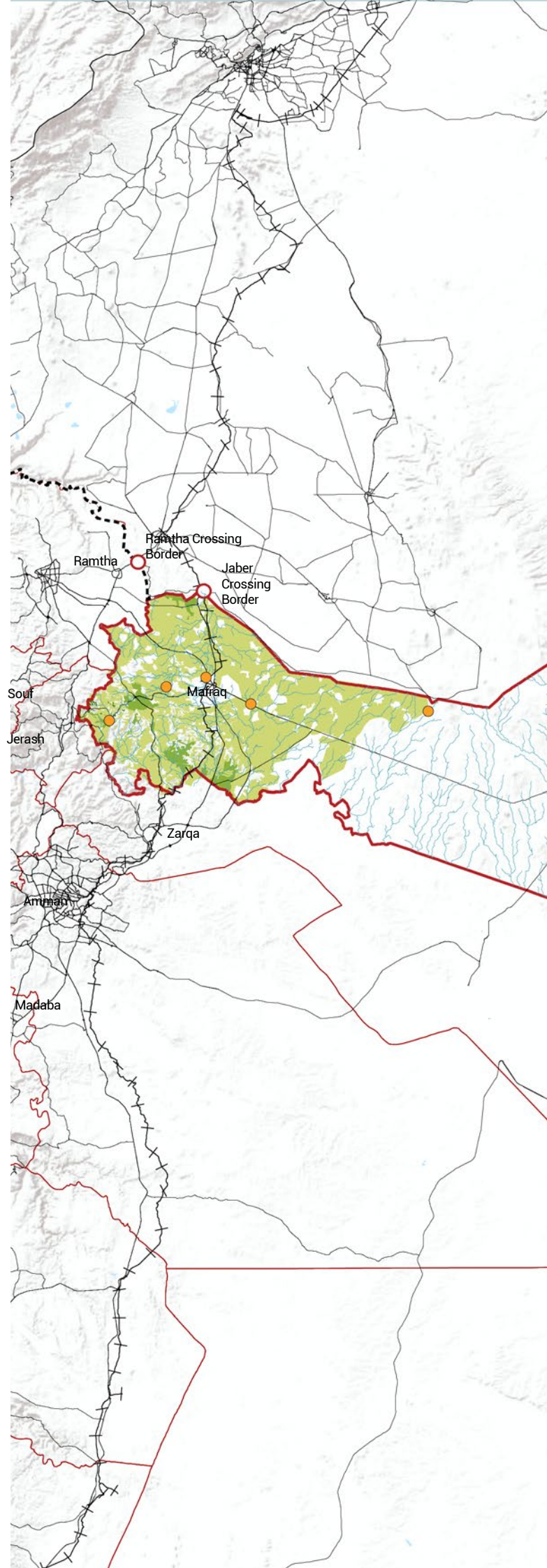
The Governorate features natural gas, volcanic ash, zeolite, zeolite tuff, and limestone among its natural resources.²⁹¹

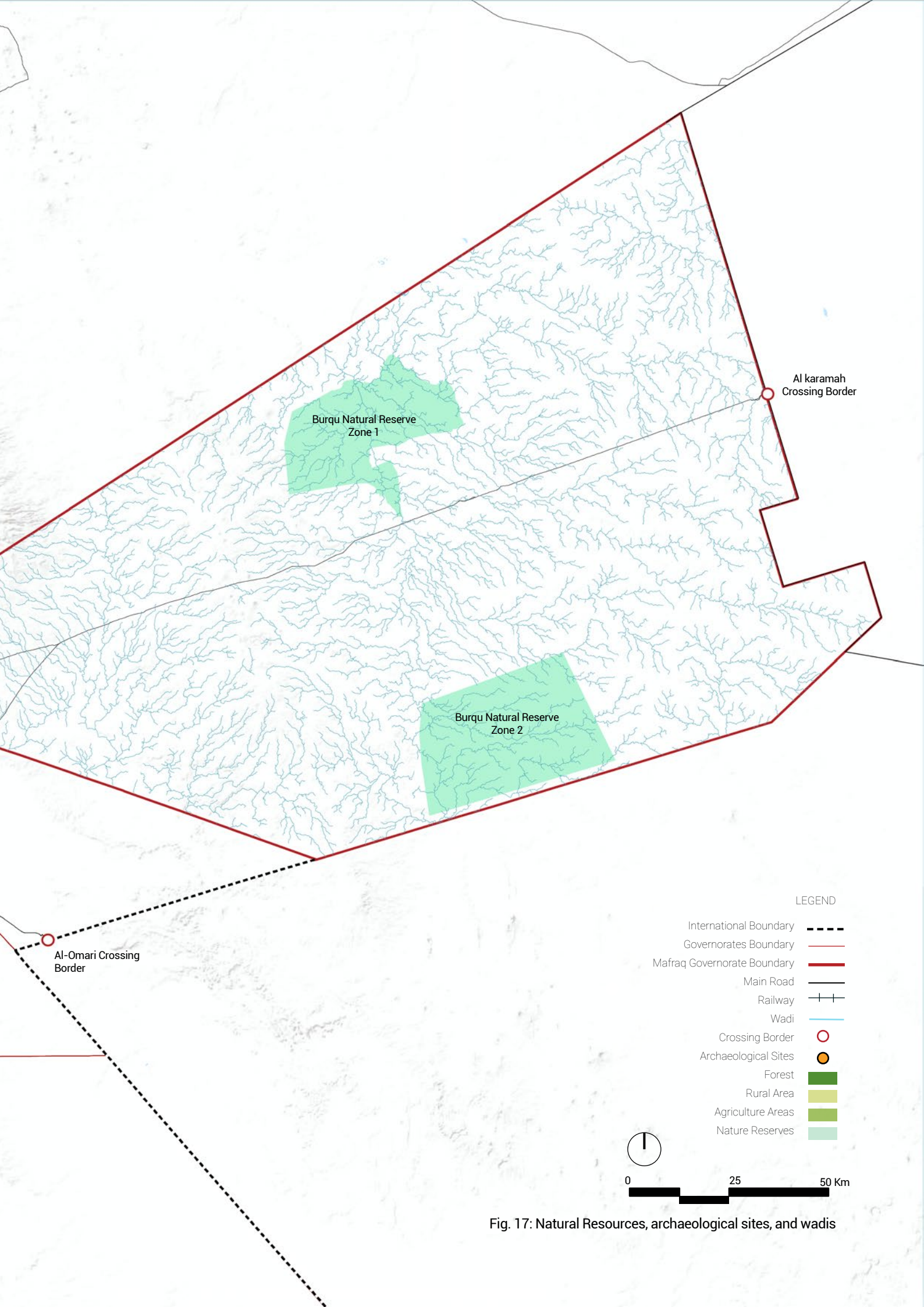
Cultural Heritage

The Governorate is renowned for its rich archaeological and cultural heritage, boasting sites such as Um Al Jammal, Safaqi Castle, Al Fudain, Al Hejaz Railway Station, and Um Al Qutain. Additionally, it is home to the world's oldest church in Rahab. Despite these sites, the tourism sector is perceived as underutilized at the governorate level.²⁹²

Nature Reserve

Situated in the northeastern Badia of Al-Mafrāq Governorate, the Burqu Nature Reserve, established in 2018, spans approximately 906 square kilometers, and is divided into two zones. The importance of the Burqu region as a designated nature reserve dates back to the 1970s when the first study on Nature Reserves in Jordan was conducted. This designation is due to its distinctive ecosystem and the growing human activities that pose threats to the region's ecological balance.²⁹³ The reserve is home to diverse flora and fauna. The reserve offers hiking trails, accommodations, and meeting spaces.²⁹⁴





LEGEND

- International Boundary - - - - -
- Governorates Boundary - - - - -
- Mafraq Governorate Boundary - - - - -
- Main Road - - - - -
- Railway - + - + -
- Wadi - - - - -
- Crossing Border ○
- Archaeological Sites ●
- Forest ■
- Rural Area ■
- Agriculture Areas ■
- Nature Reserves ■



Fig. 17: Natural Resources, archaeological sites, and wadis

Renewable Energy

Due to its geopolitical position, Jordan has the opportunity to become a regional energy hub, whereby international companies see investment possibilities in the Jordanian renewable energy sector due to its location within the solar belt, high wind speeds, and the legislative framework.²⁹⁵ The 'Renewable Energy and Efficiency Law No. (13) of the Year 2012' and its Amendments No.(33) for the Year 2014 have helped facilitate the growth of the renewable energy sector in Jordan. This law allows investors and developers to submit renewable energy project proposals directly to the Ministry of Energy and Mineral Resources. There are several renewable energy projects that have been or are currently being undertaken in Mafraq Governorate.²⁹⁶

The Mafraq I, Mafraq Solar Station - ACWA Power, and Empire photovoltaic plants in King Hussein Bin Talal Development Area (KHBTDA), and Al Safawi represent a 250 million USD investment.²⁹⁷ The plants have been operational since 2018 and produce 435,000 MWh a year.²⁹⁸ This supplies approximately 65,500 households a year and accounts for over 2% of the country's power generation capacity. The Al-Badiya Solar PV Park generates 42,000 MWh, with a startup capital of 22.5 million USD, and total current investment of 42 million USD.²⁹⁹ Additionally, the Za'atari Refugee Camp Solar PV Park was developed in 2017 on the outskirts of the camp and includes 40,000 photovoltaic panels with a capacity of 12.9 MW at a cost of 17.5 million USD.³⁰⁰

In summary, Mafraq governorate, with its expansive land area, presents promising opportunities for investment in projects requiring substantial space, such as agricultural, renewable energy, industrial, tourism, and logistical facilities. This is aligned with the regional efforts to achieve the strategic goals of the Governorate Strategic Plan for 2023-2027.

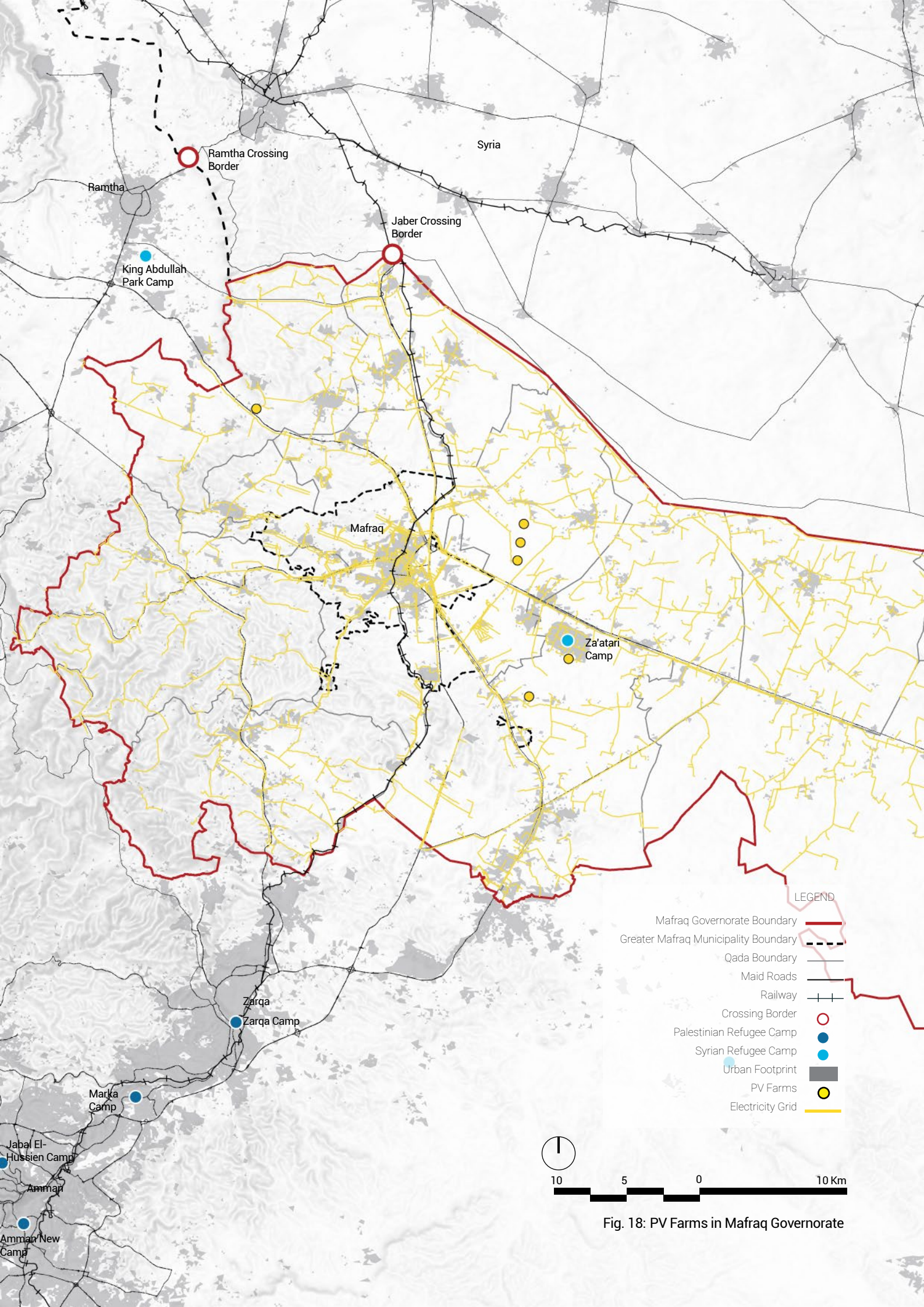


Fig. 18: PV Farms in Mafraq Governorate

Housing

In Mafraq Governorate, 78.2% of households reside in their own property whereas 18.4% reside in rental property, 2.3% in free housing, and 1.1% in housing provided in return for work.³⁰¹

The population of Mafraq Governorate is largely concentrated in the Western side of the Governorate, surrounding or within the Greater Mafraq Municipality, which has a housing density of 22 people per km².³⁰² For Jordanian households in the governorate, there is an overcrowding rate of 1.5 and an average of 3.8 rooms per housing unit, with an average housing area of 121m².³⁰³ This is the highest overcrowding rate in the country alongside Ma'an Governorate. For non-Jordanians in the governorate, there is an overcrowding rate of 2.1 (third highest in the country) and an average of 2.9 rooms per housing unit, with an average housing area of 85m².³⁰⁴ A significant 16% of Syrian refugee households in Mafraq reside in dwellings where at least four individuals share a single room.³⁰⁵ Between 2004 and 2015, only around 11% of new housing units in Mafraq had a building permit.³⁰⁶

Housing in the governorate was deeply impacted by the Syrian crisis and the consequent increase in population. In the midst of the Syrian influx into Mafraq Governorate in 2012, the rising cost of housing was found to be an emerging cause of increasing tensions between refugees and host communities.³⁰⁷ Rental prices in the governorate increased by approximately six times the original price, which significantly impacted both Jordanian and Syrian communities and resulted in the overcrowding of Syrian homes, which sometimes reach 20 people per housing unit.³⁰⁸

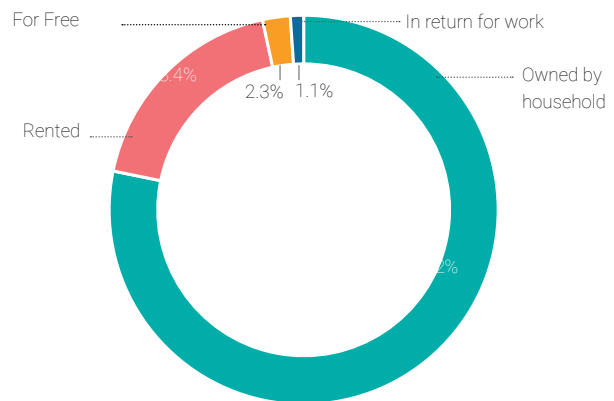
The majority of the Syrian refugees living outside of camps in Mafraq Governorate live in apartments as opposed to traditional houses, as apartments are more readily available in urban areas.³⁰⁹ Only 1% of non-camp households own their home, 1% occupy their house for free, and 98% pay rent. In Mafraq Governorate, the mean rent per unit is 123 JOD per month. Syrian refugees in the camps do not pay rent.³¹⁰

According to the 2017 Household Expenditures and Income Survey conducted by the Department of Statistics, Mafraq is one of the lowest household income governorates.³¹¹ The average annual household income in Mafraq Governorate was 9,138.7 JD, which falls below the national average of 11,241.9 JD. In the same year, the average annual household expenditure level in Mafraq Governorate was estimated to be

9,470.2 JD, which was lower than the general average of the Kingdom of 12,236.4 JD.³¹²

According to the 2022 Vulnerability Assessment Framework, 69% of refugee respondents residing in Mafraq do not have a formal rental agreement.³¹³ Moreover, 46% have described their housing conditions as 'inappropriate' and 67% have determined that their shelter conditions are 'unacceptable'.³¹⁴

In terms of affordable housing, despite the governorate witnessing an increase in demand for affordable housing, it is limited and has become a critical issue due to inflation in land, construction, and energy prices.³¹⁵ As aforementioned, the Housing and Urban Development Corporation (HUDC) is the sole government agency responsible for housing and the umbrella under which the Jordanian housing sector operates. Therefore, the map reveals the spatial location of the HUDC's implemented initiatives for land plots and apartments that were distributed to low-income Jordanians. Most of these initiatives are located at the periphery of the planned areas within the governorate, which may limit the residents' access to basic infrastructure networks and public facilities.



Distribution of housing units by type of tenure
Source: DoS, 2017

Governorate	Apartment	Traditional House	Caravan	Improvised housing
Amman	94	6	-	-
Irbid	75	25	-	1
Zarqa	84	16	-	-
Mafraq	45	43	1	12
Other gov.	55	43	-	2
Camps	-	-	99	1
All	55	16	27	2

Table 5: The Percentage of the Type of Housing by Governorate
Source: DOS, 2017

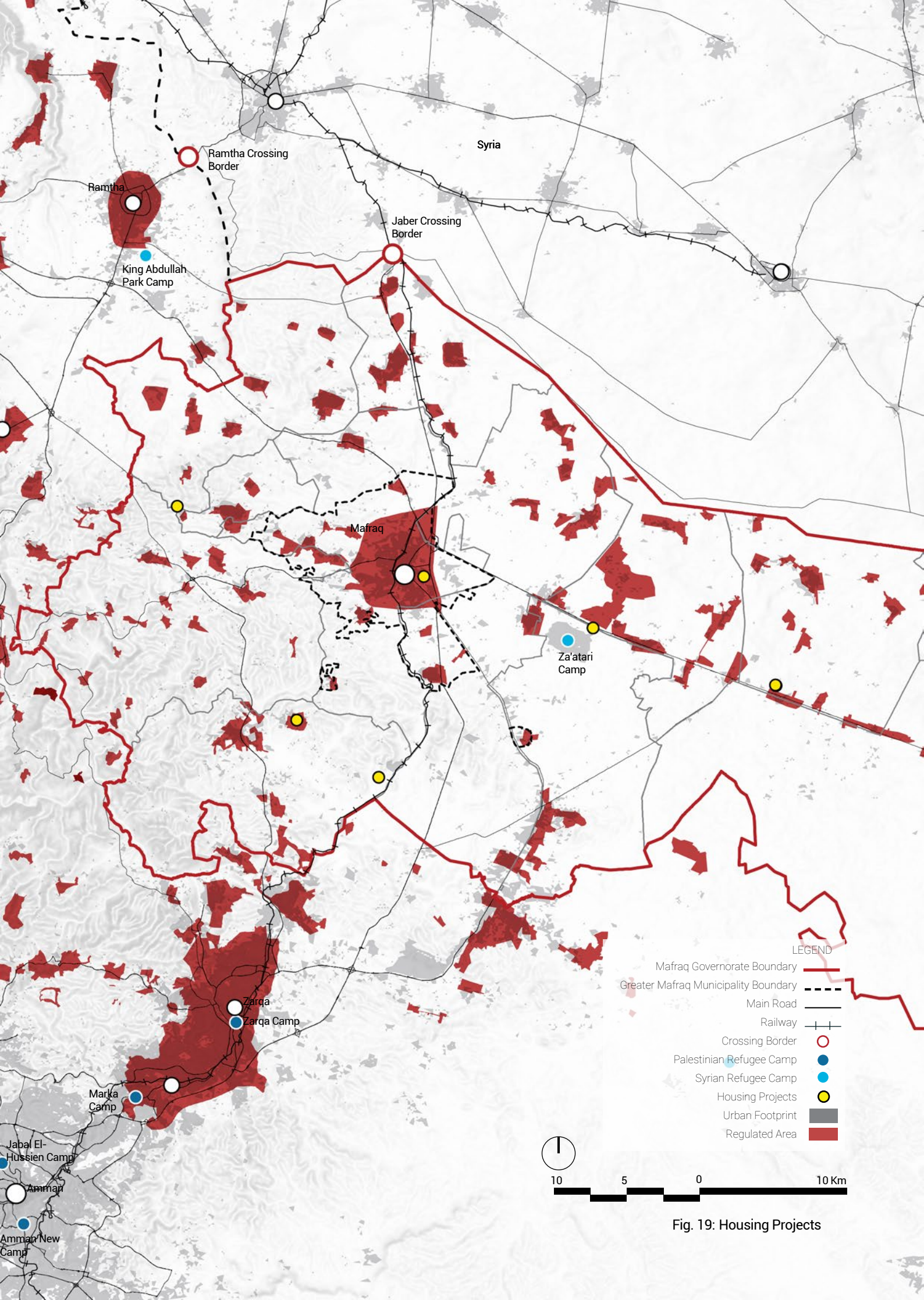


Fig. 19: Housing Projects

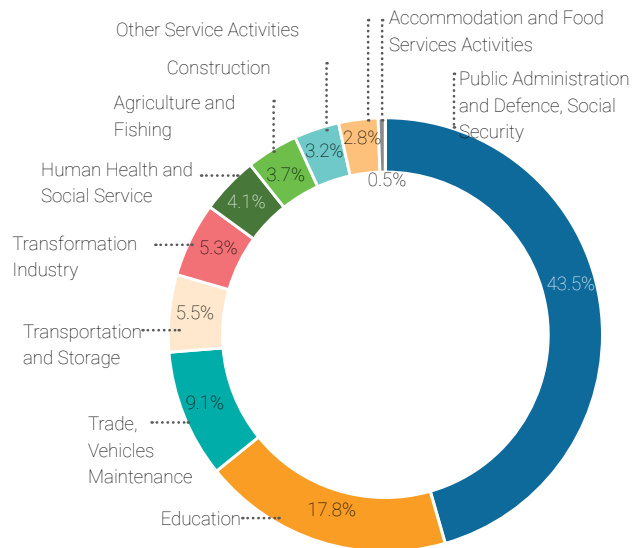
Regional Economic Activity

Based on the Report of Poverty Status in Jordan, the highest percentage of poverty was recorded in Mafrāq Governorate³¹⁶. As of 2016, the poverty rate in Mafrāq Governorate is estimated at 19.2%, which is higher than the Kingdom's rate of 14.4%.³¹⁷ The governorate has 6 poverty pockets: Ruwaished District, Salhiah District, Deir Al Kahf District, Umm Al Qutain District, Umm El- Jimal District, and Sabha District. ³¹⁸ Furthermore, as of the fourth quarter of 2023, Mafrāq Governorate recorded the highest unemployment rate amongst Jordanians in the Kingdom at 24.8%, with noticeable societal consequences observed in certain areas.³¹⁹ Various initiatives and programs have been implemented to address unemployment and poverty and improve the living conditions in Mafrāq Governorate. The Development and Employment Fund (DEF) has financed approximately 227 projects in Mafrāq Governorate between 2019 and 2021, with a total financial cost of 2 million Jordanian Dinars, in addition to providing 300 job opportunities.³²⁰ Additionally, the King Hussein Bin Talal Development Area (KHBTDA) in Mafrāq can be considered as an important economic hub in the governorate. Various investment activities take place there, including for the food and beverage sector, pharmaceutical and medical supplies sector, chemical sectors, manufacturing sector, and logistics sectors.³²¹ It also houses the Mafrāq industrial estate, offering developed land and pre-built industrial structures.³²² Moreover, Mafrāq Governorate accommodates the private industrial entity Al Thuraya Industrial Development City, established in 2018, boasting 18 operational factories.³²³

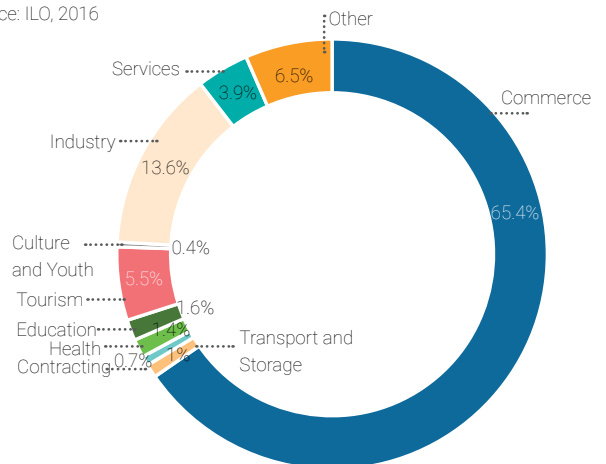
Economic enterprises in Mafrāq Governorate constitute 12% of the total economic enterprises operating in northern Jordan and 2.9% nationwide.³²⁴ In 2018, Mafrāq Governorate had 5,495 active establishments, while Irbid Governorate had 27,416, and Amman led with the highest count of 82,279 establishments. These figures underscore the substantial disparities in economic activity and development among these regions, with Mafrāq showing the least prominence in terms of commercial ventures.³²⁵ Enterprises operating in commercial and industrial activities constituted about 80% of the total enterprises in the Mafrāq Governorate.³²⁶ Among these enterprises, 55% are involved in the metals industry, while the leather and textile industries account for 17% and the food, agricultural and livestock industries make up 7% of the total.³²⁷

In 2013, the workforce in Mafrāq Governorate showed a distinct focus on specific activities. The public sector accounted for the largest portion, comprising 43.5% of the workforce. Following that, the educational, health, and social service sectors constituted 17.8%, while the commerce, transport, and storage sectors made up 13.3%.³²⁸

There are four key sectors where investment opportunities are concentrated in the Governorate: the agricultural and food industries sector, tourism sector, renewable energy sector, and the recycling sector.³²⁹ It should be highlighted here that, based on the 2014 Investment Map Study for the Northern Governorates, some of the most significant barriers to investment in Mafrāq Governorate include the following: Weakness in the role of chambers of commerce and industry in providing support and promotion; Bias of the investment encouragement law in favour of foreign investors and specific sectors; Centralization of decision-making and governmental procedures; and Provision of public services (electricity, water, and energy), among other factors.³³⁰ This necessitates efforts to alleviate these challenges and harness the potential within the governorate.



Percentage of Workforce by Sector in Mafrāq Governorate in 2013
Source: ILO, 2016



Distribution of enterprises operating in Mafrāq Governorate by Economic Activity in 2011
Source: ILO, 2016



مركز عبد الحلبي
صيدلية
مركز عبد الحلبي
صيدلية

مخبزات ابو زيد
صالح حنظل طابش





03

CITY CONTEXT

Governance & Administration Structure

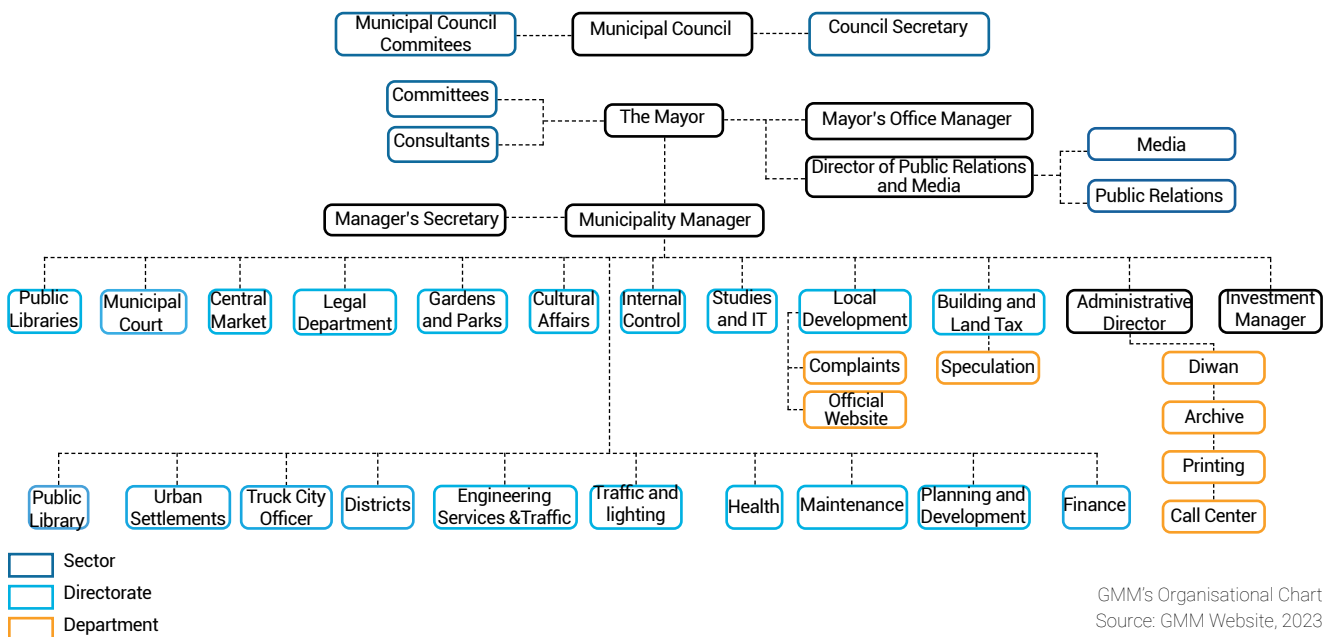
Under MoLA's administration, Mafraq Municipality was created by the Prime Ministry of Jordan on the 9th of February 1944. The decision came after a request from the Minister of Interior, the administrator of the Ajloun Liwa, and residents of Mafraq.³³¹ Shortly after, Mafraq Municipality was declared the center of Mafraq Governorate.³³² Consequently, Jordan witnessed the establishment of the Greater Mafraq Municipality (GMM), in 2002.³³³ The city was originally known as "Fudain," a name derived from the Arabic word for fortress. The city's significance grew considerably following the construction of the Hejaz Railway, connecting Istanbul to Medina. It was later renamed as Mafraq by the Ottoman Turks, a name signifying crossroads.³³⁴

The municipal boundary of GMM covers a large part of Mafraq Qasabah Liwa, as well as parts of Badiyah Shamaliyah Gharbiyah Liwa. GMM is divided into 6 districts, namely: Mafraq Qasabah, Aidoon, Um Enna'am Sharqiyyeh, Um Enna'am Gharbiyyeh, Thoghret El-Jobb, and Ghadier Abyadh.³³⁵ Based on the available GIS data, the administrative boundaries of GMM cover an area of 115.1km², accounting for less than 0.5% of the total area of Mafraq Governorate. The regulated area accounts for around 45.4% of GMM's total area. GMM controls all services provided for its residents, including roads' maintenance, street-lighting, solid waste management, building approvals, tax collections, among others. However, electricity and wastewater, fall under the jurisdiction of the Irbid District Electricity Distribution Company (IDECO) and Jordan Company/Yarmouk respectively. GMM is responsible for providing municipal services for all the societal segments within its

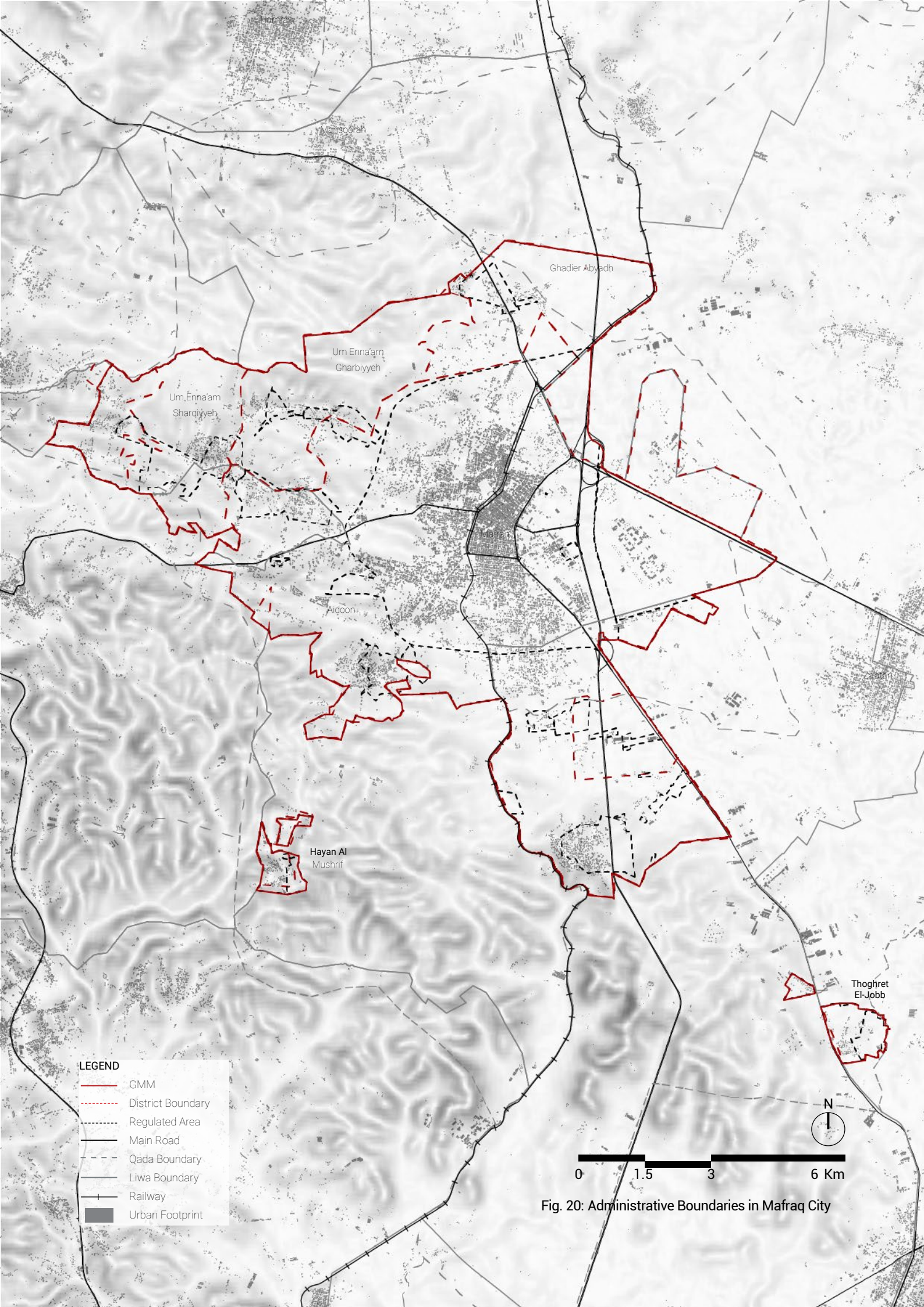
municipal boundaries regardless of their status of residency, for both Jordanians and non-Jordanians. As shown in the map, it is evident that the administrative boundary of Mafraq city consists of one large area and two smaller areas located to the south of the main plot. This pattern aligns with the national trend where residents construct their homes and subsequently compel municipalities to supply essential services, resulting in the inclusion of these areas within the administrative boundaries.

Despite having a Strategic and Local Development Plan (2020-2025), GMM does not have the necessary master and zoning plans to identify key areas and investment opportunities to guide investors towards, whether on government or privately owned land. Moreover, to date, GMM utilises a paper-based system to record ongoing municipal work and lacks the necessary electronic database, to allow for data to be easily accessed, updated, and shared.³³⁶ It's noteworthy that recently a Local Development Plan for GMM (2024-2028) is developed as part of the Qudra 2 Programme, whereby the initiatives within the UPIMC programme are well-aligned with the defined objectives and successfully contribute to fulfilling two activities outlined in the plan.

The GMM Council is headed by the Mayor, and consists of 14 members, of which 4 are women. Each member is elected by residents for a four year term.³³⁷ Despite having a well-developed organizational chart, GMM suffers from poor organizational structure. The lack of clear job descriptions or specific titles results in confusion within roles, as well as the absence of approved documents or evidence of work.



GMM's Organisational Chart
Source: GMM Website, 2023



LEGEND

- GMM
- District Boundary
- Regulated Area
- Main Road
- Qada Boundary
- Liwa Boundary
- Railway
- Urban Footprint

N

0 1.5 3 6 Km

Fig. 20: Administrative Boundaries in Mafraq City

Population Density & Distribution

According to the 2015 population census, the population within GMM reached 122,028 inhabitants, accounting for 22.2% of the governorates total population.³³⁸ While the city's growth is due to various factors, including rural-urban migration and the concentration of economic activities and services, the most significant factor is considered to be the influx of refugees.

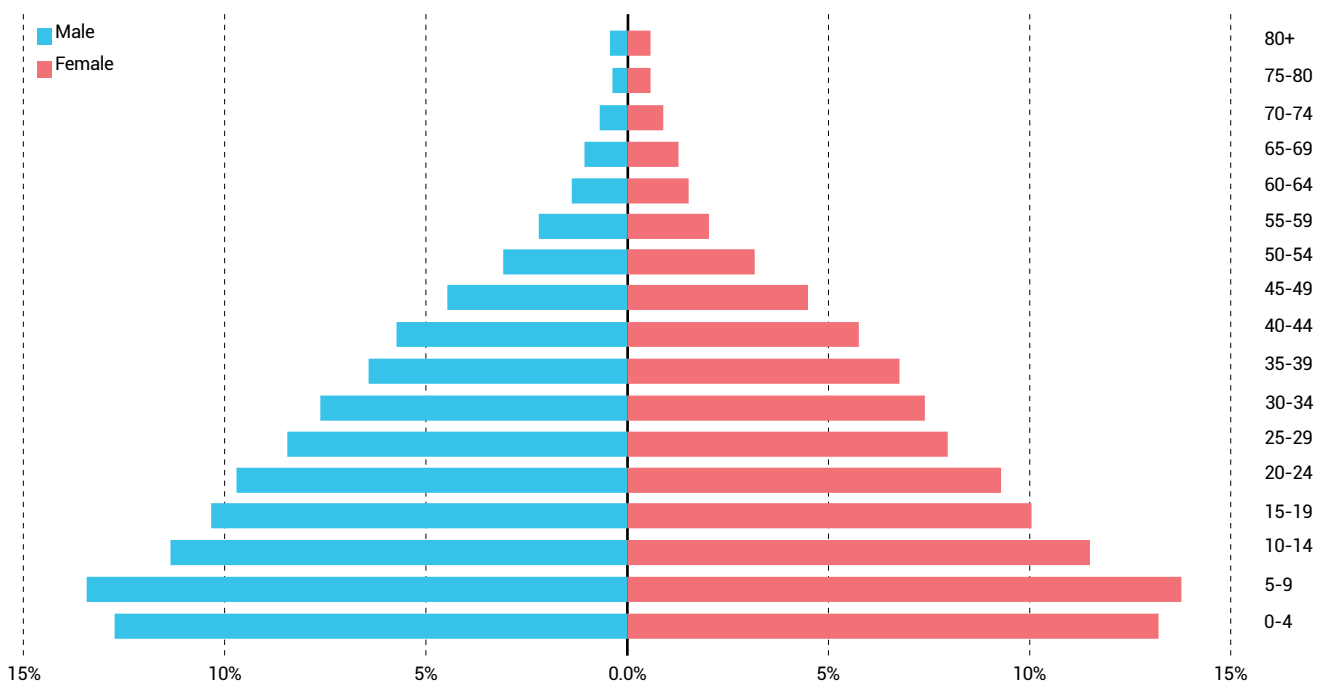
The population is slightly more male dominant in GMM, with the female to male ratio being 47.8:52.2.³³⁹ The population is characterized as youthful with approximately 38% of its population being under the age of 15 years, approximately 59% of GMM's population are aged between 15-64, and only 3% aged 65 years and over.³⁴⁰ The average household size in GMM is 5.2 individuals,³⁴¹ higher than the national average of 4.8.

GMM has experienced significant exponential growth of its population over the years. Estimated at 6,000 residents in 1952, the population grew to 9,500 in 1961, exceeding 21,000 in 1979. By 1994, its population reached 32,000. By 2009, authorities estimated the population of GMM at 58,000.³⁴² Since then, GMM's population has more than doubled in size to reach

148,940 residents in 2022, according to the Department of Statistics population estimates.³⁴³ This growth is mostly due to the rapid influx of Syrian refugees into Mafraq, following the 2011 Syrian civil war. The population growth rate in GMM is estimated at 2.4% annually³⁴⁴, while the average population density, based on the 2015 census, has reached 1060/km².

Excluding the Za'atari Refugee Camp, Mafraq Qasabah is the only other urban cluster within the governorate with over 100,000 inhabitants. The highest population density is concentrated around Mafraq city center, as clearly indicated on the map. It can be observed that the density is highest around the junction that connects Damascus Highway and Baghdad International Highway, highlighting once again the important role that the city plays in connecting neighbouring countries.

A study of the distribution of Syrian refugees reveals that they are significantly centred within GMM.³⁴⁵ According to the 2015 census, the number of Syrian refugees within the GMM's boundary is 39,157. However, the actual number of Syrians residing within GMM's boundary exceeds this number.



The Population Pyramid of the city of Mafraq (DoS, 2017)

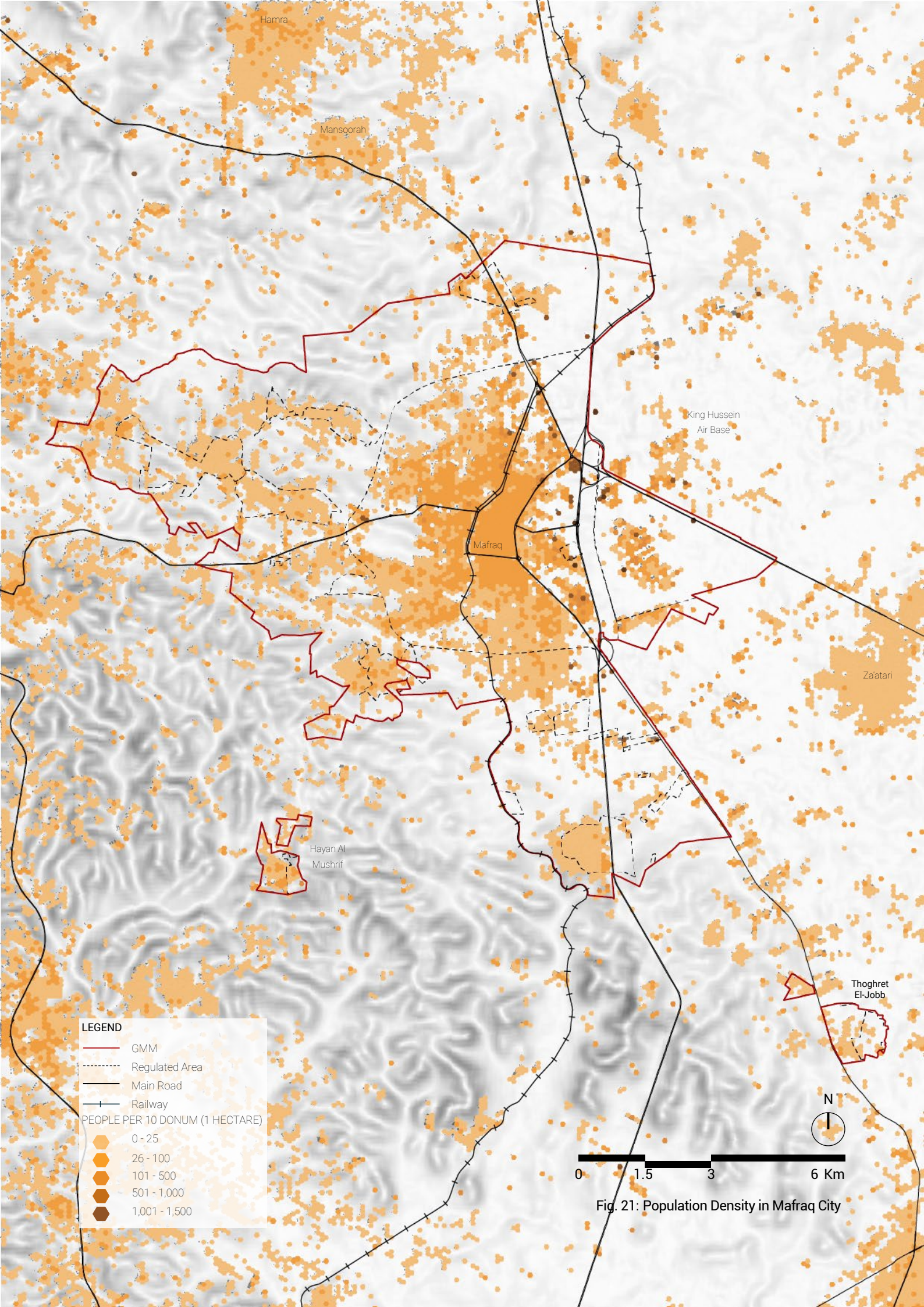


Fig. 21: Population Density in Mafraq City

Migration Context

Within GMM, 42.9% of the population are non-Jordanians; which is broken down to: 88% Syrians, 7% Egyptians, 3.6% Palestinians, 0.3% Iraqis, and the remaining 1.1% of other nationalities. Among this population, 45% are females.³⁴⁶

The demographic dependency of GMM is around 69%,³⁴⁷ higher than the national level of 61.4%.³⁴⁸ This highlights the importance of preparing plans that will meet the needs of the population in terms of education, job opportunities, health, and open recreational spaces. Mafrq governorate, as a region, has a high proportion of economically inactive people. This is exacerbated by the fact that, on average, the region has the greatest number of disabilities per household.³⁴⁹

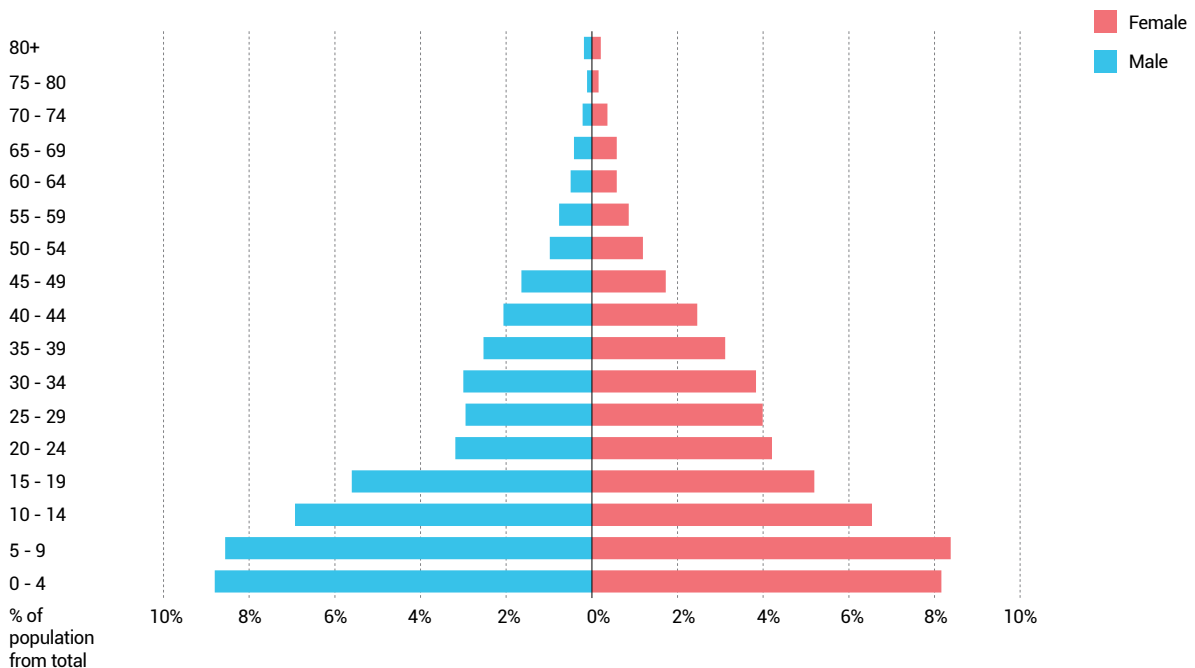
Despite a large percentage of GMM's population being refugees, there are no refugee camps within its borders. As such, the population is categorized as urban refugees, which is indicative of the increase in pressure on municipal services. According to GMM, the effects of migration are not limited to a specific sector, but are felt across the health, education, infrastructure, labour, environment, water, energy and housing, amongst many other.³⁵⁰

There are some key factors that assisted in the integration between Syrians and Jordanians since 2012,

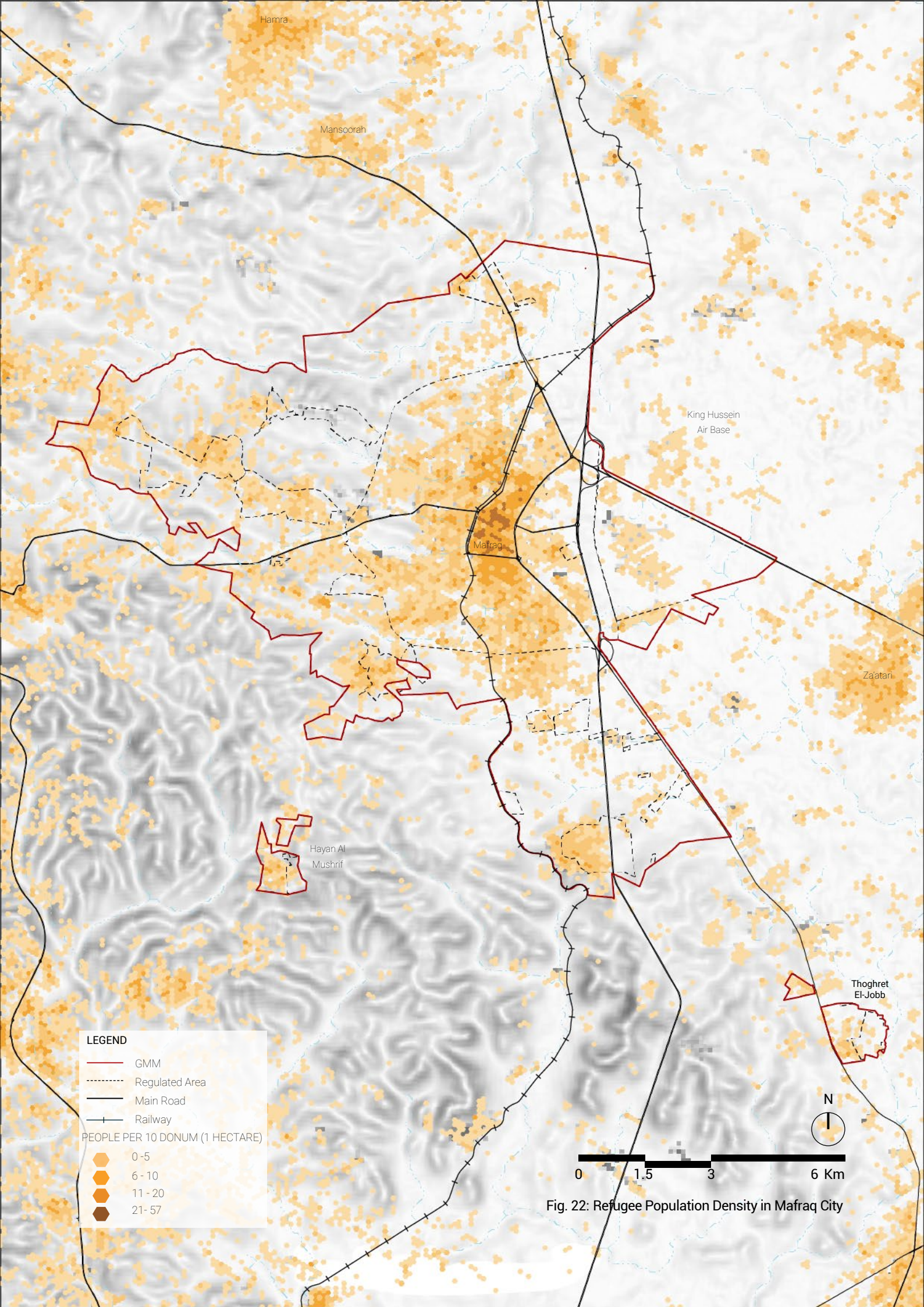
including the spatially-close nature of Jordanian and Syrian households, resulting in good relations between inhabitants. The linguistic and cultural similarities as well as the ongoing border movement and trade with Syria has also enabled a smooth integration. However, other factors hindered integration, including spatial and infrastructural factors; limited public space availability, an overwhelmed educational system, and competition over job opportunities and housing.³⁵¹

Over 40% of the total population lacks access to housing, as the housing market primarily caters to a privileged segment of the population favouring villas in suburban or rural areas.³⁵² Rental prices are estimated to have increased by 250%, due to the unprecedented demand on housing and real estate attributed to the influx of refugees into Mafrq Governorate. The lack of access to affordable housing resulted in tension between host and refugee communities.³⁵³

The map illustrates a concentrated influx of refugees primarily within the central area of Mafrq City. Notably, the density decreases progressively towards the outskirts of the city. Additionally, the presence of refugees is evident along the major roads that link to the Za'atari refugee camp, situated in the south-eastern periphery.



The Refugee Population Pyramid of the city of Mafrq (DoS, 2015)



LEGEND

- GMM
- - - - - Regulated Area
- Main Road
- + - - - - Railway

PEOPLE PER 10 DONUM (1 HECTARE)

- 0-5
- 6-10
- 11-20
- 21-57



Fig. 22: Refugee Population Density in Mafraq City

Urban Growth

Historically, the geographic nature of Mafraq city as a crossroads connecting neighbouring countries has significantly contributed to its growth and where people settled. With time, multiple factors came to play, shaping its urban characteristics, including the Hijaz railway, migration, the presence of military camps, introduction of light and heavy industrial zones, and the development of Al-Bayt University.³⁵⁴ With all these factors in mind, Mafraq rapidly transformed from village to city, as it witnessed a significant increase in population from 6,000 in 1952 to 148,940 by 2022.

In 1903, during the Ottoman period, Mafraq station was built and served as a major stop along the Hijaz railway. Then, in 1935, the Iraq Petroleum Company and the Trans Arabian Pipeline Company selected Mafraq as the main station along the Baghdad-Haifa line in which to set up their headquarters and collect workers. During the Second World War, in the decade that followed, Mafraq hosted British troops on its bases and airport,³⁵⁵ gaining military importance, that remains until this day.

In just under four decades, the urban footprint of Mafraq tripled in size, with an average annual rate of increase of 10.6%. The mapping of Mafraq's urban growth shows that the city is expanding towards the west, which is due to the moderate natural conditions of GMM, especially in the southern and western regions. Flat land, high-quality soil, and moderate climate have attracted populations to reside in these areas, many on rural/agricultural residential land. Away from the center, and as a result, this growth led to the expansion of urban areas at the expense of other types of land use classes, particularly agricultural areas. Moreover, Al-Bayt University, military camps, and the military airbase restrict the city from sprawling east and northeast.³⁵⁶ The expansion of the city westwards gives Mafraq its crescent-like shape.

In quantitative terms, the urban area of Mafraq tripled over the last couple of decades, from 14.7km² in 2005 to 42.7km² in 2023. However, this growth was not linear. The urban growth of Mafraq between 2005 and 2010 was a mere 1.1km², while the most significant growth happened between 2010-2015, following the Syrian refugee influx, during which the urban area of Mafraq grew 65.9%, from 15.8 km² to 26.3 km². The observation revealed a noticeable expansion in the south-eastern direction, towards the Za'atari refugee

camp, highlighting the clear impact of the camp on the GMM urban footprint's growth.

According to a study, two styles of urban growth were identified in Mafraq; the first being regular growth, in which streets follow an orthogonal grid. This is reflected in the central parts bounded by the railway line and Army (Al-Jaysh) Street, characterizing these areas with ease of transportation as well as clear and controlled ownership on one hand, and with severe overlaps in land uses and frequent dangerous traffic intersections on the other. The second is an irregular layout, which results in irregular streets and, subsequently, irregular plots of land. This is due to the haphazard growth of the city, which currently has no master-plan.³⁵⁷

According to the GMM staff at the UPIMC introductory workshop that was conducted on the 15th of August, 2023, until very recently, planning has mostly been practiced as a reactive measure within the municipality. With no master-plan to guide the municipality or its residents, urban growth and development has almost always been haphazard, whereby planning and municipal services follow the actual urban growth in the city.

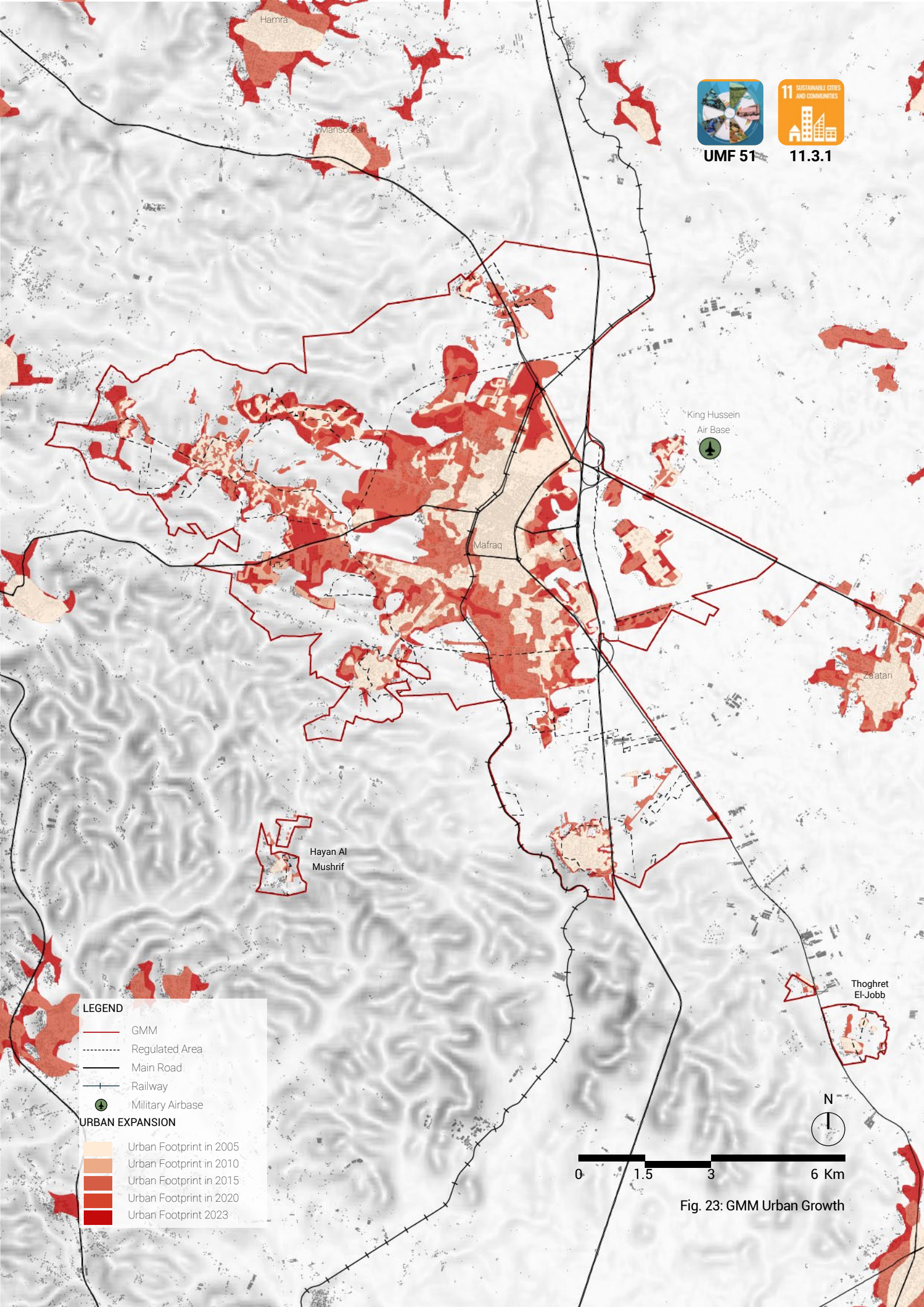
The spatial data presented in the map adds a crucial geographic dimension in monitoring the progress towards SDG 11.3.1 and indicator UMF-51 of the Urban Monitoring framework. Both focus on the balance between land consumption and population growth, to ensure that urbanization contributes to sustainable development rather than leading to unsustainable sprawl.



UMF 51



11.3.1



LEGEND

- GMM
- Regulated Area
- Main Road
- Railway
- Military Airbase

URBAN EXPANSION

- Urban Footprint in 2005
- Urban Footprint in 2010
- Urban Footprint in 2015
- Urban Footprint in 2020
- Urban Footprint in 2023

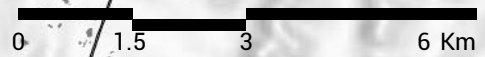


Fig. 23: GMM Urban Growth

Land Use Planning

Greater Mafraq Municipality's footprint reached 42.7 km² in 2023. The significant spatial growth of urban areas has led to an increased demand for public services, including housing due to the influx of refugees and migrants, as well as rural-urban migration.³⁵⁸

The majority of land in Mafraq is privately owned, constituting 79.3%; GMM owns only 20.6 km² of land within its boundaries.

Around 54.6% of the land within the GMM boundary is unregulated. Regulated areas within GMM cover 52.3 km² constituting 45.4% of GMM's administrative area, according to the 2007 Landuse data from MOLA. 36.5% of the regulated land is built-up. Rural lands comprise the highest share of lands within GMM's unregulated area, constituting 49.2% of the total land coverage.

In terms of land use distribution within planned areas of GMM, residential land use comprises the highest percentage at 59%, followed by educational services. Al-Bayt university accounts for 21% of GMM's landuse. Green and open spaces, on the other hand, constitute a mere 2% of planned areas. Industrial land uses also remain low within the municipality, constituting 1% of land use. However, this excludes the industrial areas outside of GMM boundaries, as seen on the map.

It is important to note that the residential zones of Jordan are categorised into seven main types: Residential types A, B, C, and D, as well as agriculture residential, rural residential, and residential with special regulations. The residential type A category represents the least affordable typology, while residential type D is the most affordable one. The most prevalent type in Mafraq is C at 38.6%, followed by agricultural residential at 27.2%, then B at 12.2%, rural residential at 9.8%, and, lastly, D at 5.9%.

There is a clear difference in plot sizes and land use moving from the city center westwards. Plots in the city center are much smaller, which is reflected in the concentration of residential type D. Moving further west, residential types C and B are more prevalent, while agriculture and rural residential are found on the edge of the city.

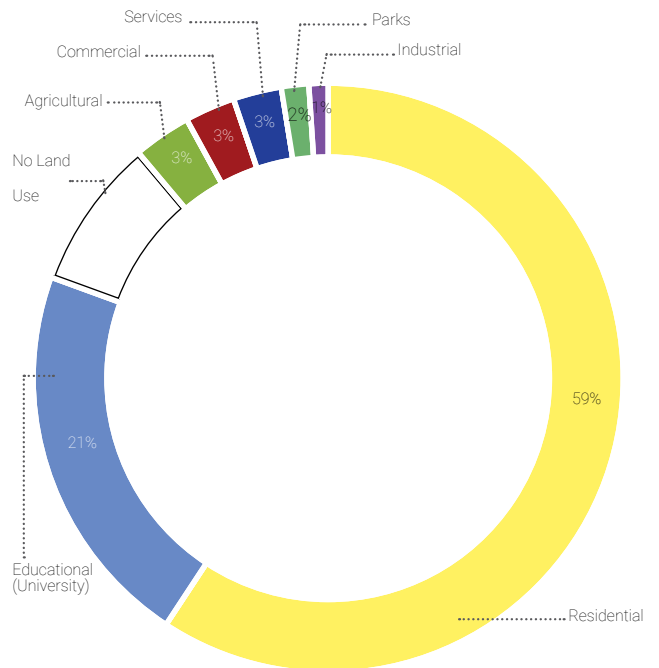
Moreover, most of the services, industrial areas, and commercial land use in GMM is clustered around the city center. Commercial landuse follows the main roads. The pattern indicates urban expansion towards the south and west of the municipality. Mafraq is a craftsmanship centered city, the crafts vary from metalwork and carpentry

workshops in the west, mechanics workshops and automobiles' services in the south-east, and light industries in the southern region.³⁵⁹

The map illustrates that several parts within the regulated area lack specified land use categorization, indicating a gap in the municipality's ongoing commitment to consistently update its land use plans and incorporate contemporary advancements within its administrative borders into the digital database. Furthermore, even though the Al-Bayt University on the eastern side of GMM is featured in the land use map, it falls outside the regulated boundary outlined in the MOLA 2007 data. This emphasizes the pressing need to strengthen their capabilities in this domain.

It is important to highlight that the land use map for the regulated area is outdated and does not accurately reflect the current reality.³⁶⁰

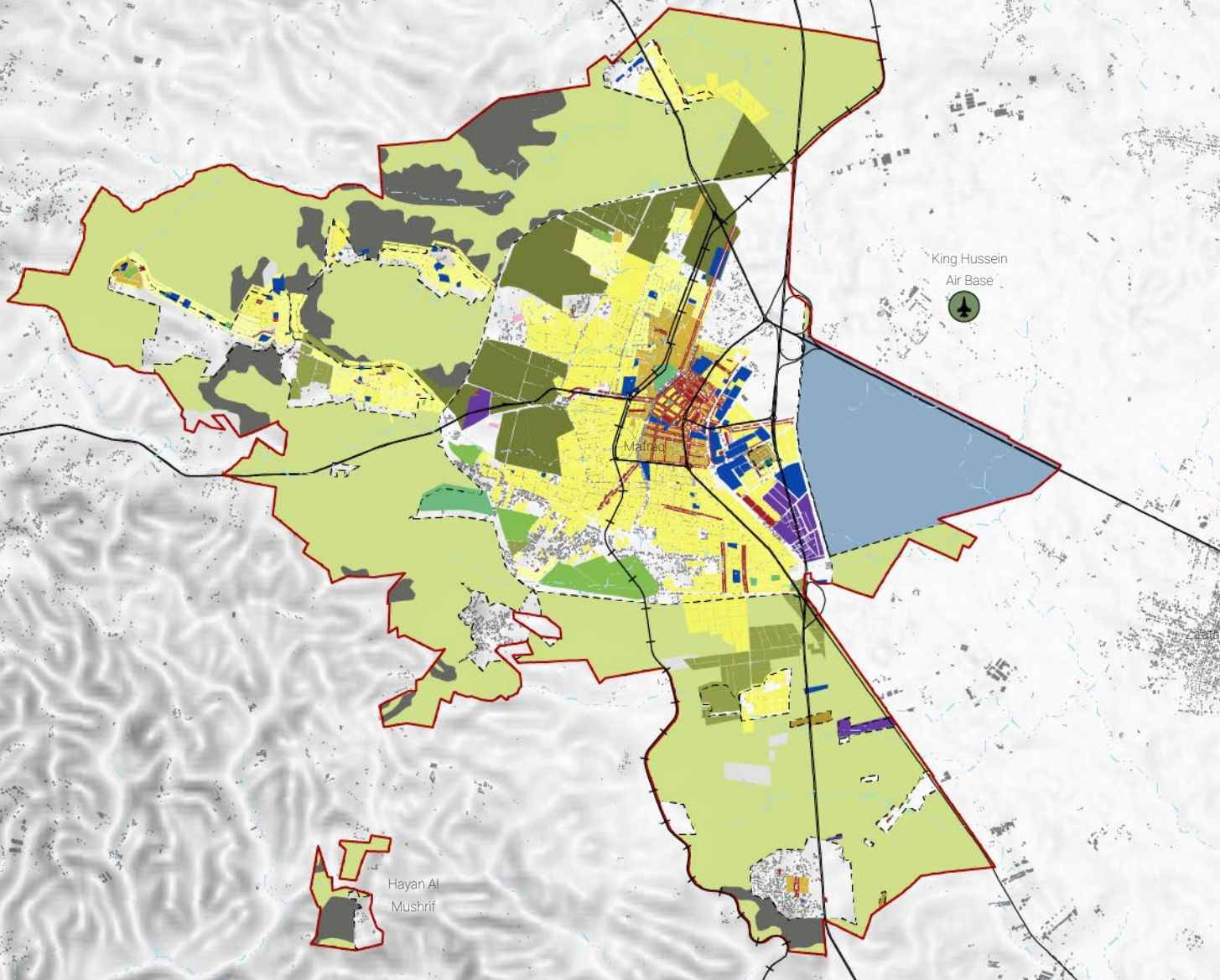
The data utilized to create this map can offer valuable support to the municipality in reporting on effective land use linked to UMF 51.



Land use of regulated area within GMM Administrative Boundary
Source: MoLA 2007 and GMM 2023



UMF 51



LEGEND	
	GMM
	Regulated Area
	Main Road
	Railway
	Urban Footprint
	Military Airbase
	Rural
	Marginal
	No Land Use
	Residential (Type A)
	Residential (Type B)
	Residential (Type C)
	Residential (Type D)
	Residential with special Regulations
	Residential Rural
	Residential Agricultural
	Commercial
	Mixed-use
	Park
	Services
	Industrial Area
	Educational
	Special Area
	Agricultural Area
	Military Land



Fig. 24: GMM Landuse

Natural Hazards

According to focus groups discussions carried out by UN-Habitat with GMM residents in 2019, as part of the development of a project supported by the Adaptation Fund, floods and drought were identified as the two main climate hazards.

Primarily characterized by its flat terrain, Mafraq sits at the juncture of the Hauran plateau and the Syrian Desert, with an average elevation of approximately 700 meters above sea level. As aforementioned, the key natural hazards that Mafraq is vulnerable to include flash floods and drought. According to a flood hazards mapping, the districts of Mafraq are among the most vulnerable to flash floods due to rapid unplanned urbanization and impervious surfaces over the majority of the whole watershed. This decreases the infiltration, which, in turn, increases the peak flow and flooding volume.³⁶¹

According to a study conducted by the Civil Protection Office in Mafraq Governorate and the French Foreign Ministry, floods are likely to occur in GMM when the intensity of rainfall reaches 15mm/hour or more. Flood risk is particularly acute for households that are encroaching on natural drainage areas (wadis).³⁶² Wadi Mafraq significantly exacerbates the issue of flooding in the city.³⁶³ The wadi is around 11km long, and runs through the center of the city, dividing it into east and west. The wadi requires additional municipal effort, in terms of periodic cleaning, especially during winter, to avoid the accumulation of waste in the drains and the occurrence of flooding.³⁶⁴ Recently, with the assistance of MOLA, the GMM has erected retaining walls along the Mafraq Valley and implemented culverts to enhance stormwater drainage and safeguard nearby residents from potential winter flooding.³⁶⁵

The flooding of the main wadi, which passes through the city, causes damage to houses and infrastructure, displacing many, particularly those living in close proximity to the wadi. This is primarily due to non-compliance with the amended Jordanian regulations for water resource protection for the year 2019, involving construction within the wadi's designated buffer zone—a mandated 10 meters, as illustrated in the map.³⁶⁶ An increase in the number of insects, rodents, and, inevitably, diseases has been reported. Moreover, these floods have a greater effect on vulnerable populations, such as women and children, due to school closures and forced absences, in which mothers are expected to stay home with their children, which consequently affects their income.³⁶⁷

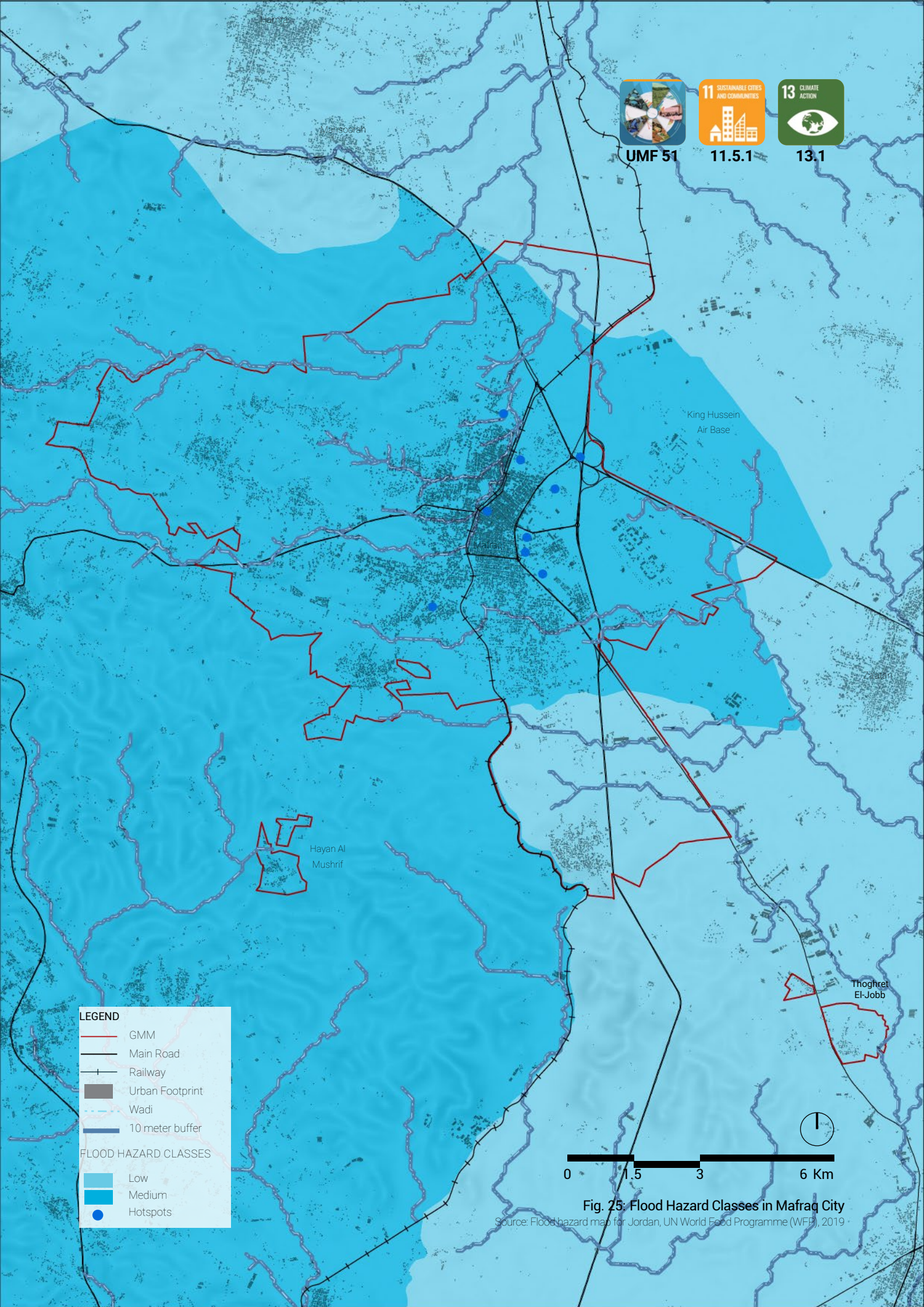
The mean annual rainfall in GMM, about 184 mm,³⁶⁸ is 6 times the actual need, but climate change brings sudden extreme rainfall, which does not replenish groundwater, and, with no rain harvesting systems in place, GMM does not benefit from it. Instead GMM experiences flash floods and soil erosion.³⁶⁹

GMM identified nine flood hotspots due to insufficient drainage capacity. These hotspots include the Army street, Al-Hussein Neighbourhood, Government Circles Street/ Opposite to the Licensing Office, Aydoon Street, Street Number 20, and Al-Dhahiyah Area.³⁷⁰ This has affected schools, transportation, the power grid, and access to quality basic services, while additionally exacerbating the vulnerabilities for the poorest groups of Jordanians and Syrian refugees. The Local Development Unit in GMM is working to find solutions to these hotspots in cooperation with the Engineering Services Directorate.³⁷¹ Moreover, being the largest municipality in Mafraq, GMM forms an emergency response team in the winter, providing free assistance in the event of a municipal request.³⁷²

Drought, on the other hand, translates to a decline in the precipitation level, resulting in a decline in table and ground levels. The irregular delivery of municipal water has translated into psychological stress for heads of households, as financial burdens increase when having to purchase water especially for Syrian families, who usually have a smaller net income. Additionally, drought has caused a decline in agricultural land and livestock production in the surrounding areas. This also affects the livelihoods of Jordanians and Syrians working on farms, and women who rely on the production of olive oil and dairy to generate income.³⁷³ Seismically, Jordan is considered a moderately active region, and, based on the national earthquake hazard map, Mafraq is located in one of the least active areas.³⁷⁴

The absence of a local disaster risk reduction strategy, in alignment with the existing Jordan Natural Disaster Risk Reduction Strategy 2023-2030, further exacerbates the challenge in responding to risks in Mafraq City.

The spatial data presented in the map adds a crucial geographic dimension and provides insights into geographic variations for the monitoring of challenges and progress in achieving SDG 11.5.1, SDG 13.1, and UMF-20 targets and indicators, focusing on resilience and adaptive capacity to climate-related hazards and natural disasters.



UMF 51



11.5.1



13.1

LEGEND

- GMM
- Main Road
- Railway
- Urban Footprint
- Wadi
- 10 meter buffer

FLOOD HAZARD CLASSES

- Low
- Medium
- Hotspots

0 1.5 3 6 Km



Fig. 25: Flood Hazard Classes in Mafrag City

Source: Flood hazard map for Jordan, UN World Food Programme (WFP), 2019

Planned Infrastructure Investments



The ongoing infrastructure investments within Mafraq City encompass a range of projects. These initiatives hold the potential to significantly contribute to the city's progress towards achieving various SDGs.

Major Urban Development Projects

Within the framework of the ongoing regional project titled "Resilient Solutions Against Climate Change," implemented by UN-Habitat and funded by the Adaptation Fund (AF), an urban observatory in GMM for urban risk assessment, climate change vulnerability evaluation, and integrated planning and management will be established. Within the framework of the MSSRP project, five key priorities were identified at the municipal level: constructing and maintaining public parks, rehabilitating and building roads, managing stormwater drainage, implementing income-generating projects, and fostering traditional markets. The primary focus was directed towards the development of a park. However, due to constraints related to the limited availability of municipal land, the implementation of the park was deemed infeasible, resulting in the decision to prioritize road rehabilitation instead.³⁷⁵ GMM is planning extensive efforts to revitalize the central Al-Hasba market building, transforming it into the municipal headquarters. Spanning an area of 4,500 square meters, the initiative seeks to centralize all municipal departments and sections within one building, streamlining the process for citizens and visitors to carry out their transactions in a single location.³⁷⁶

Major Transportation and Urban Mobility Projects

The street paving initiative, which began in November 2011, is a significant project funded by the World Bank under the MSSRP project, with an estimated cost of 536 thousand Jordanian Dinars. The mayor of GMM highlighted the priority of addressing the most affected roads within the city, emphasizing the implementation of a comprehensive work plan for the road improvement project. The focus remains on enhancing and repairing roads in major neighbourhoods and schools, whether public or private, with the overarching aim of providing secure and well-maintained streets for the community's convenience and safety.³⁷⁷

Major Sewerage Projects³⁷⁸

KFW is currently funding a project titled "Supply and Sanitation for Syrian Refugees and Host Community" in collaboration with the Water Authority of Jordan. This initiative aims to expand the existing sewerage network to encompass multiple neighbourhoods within GMM. Work is currently underway in Al Jundi neighbourhood northern of Mafraq City.

Major Management Projects

The rehabilitation of Mafraq WWTP is a crucial intervention within the ongoing UN-Habitat-led project "Resilient Solutions Against Climate Change," supported by the AF.

This effort is designed to ensure the efficient and sustainable management of waste water by restoring the facility to its full operational capacity. Such restoration stands as a fundamental step towards advancing treated waste water, fostering healthier ecosystems, and promoting sustainable resource management.

Major Climate Change and Sustainability Projects

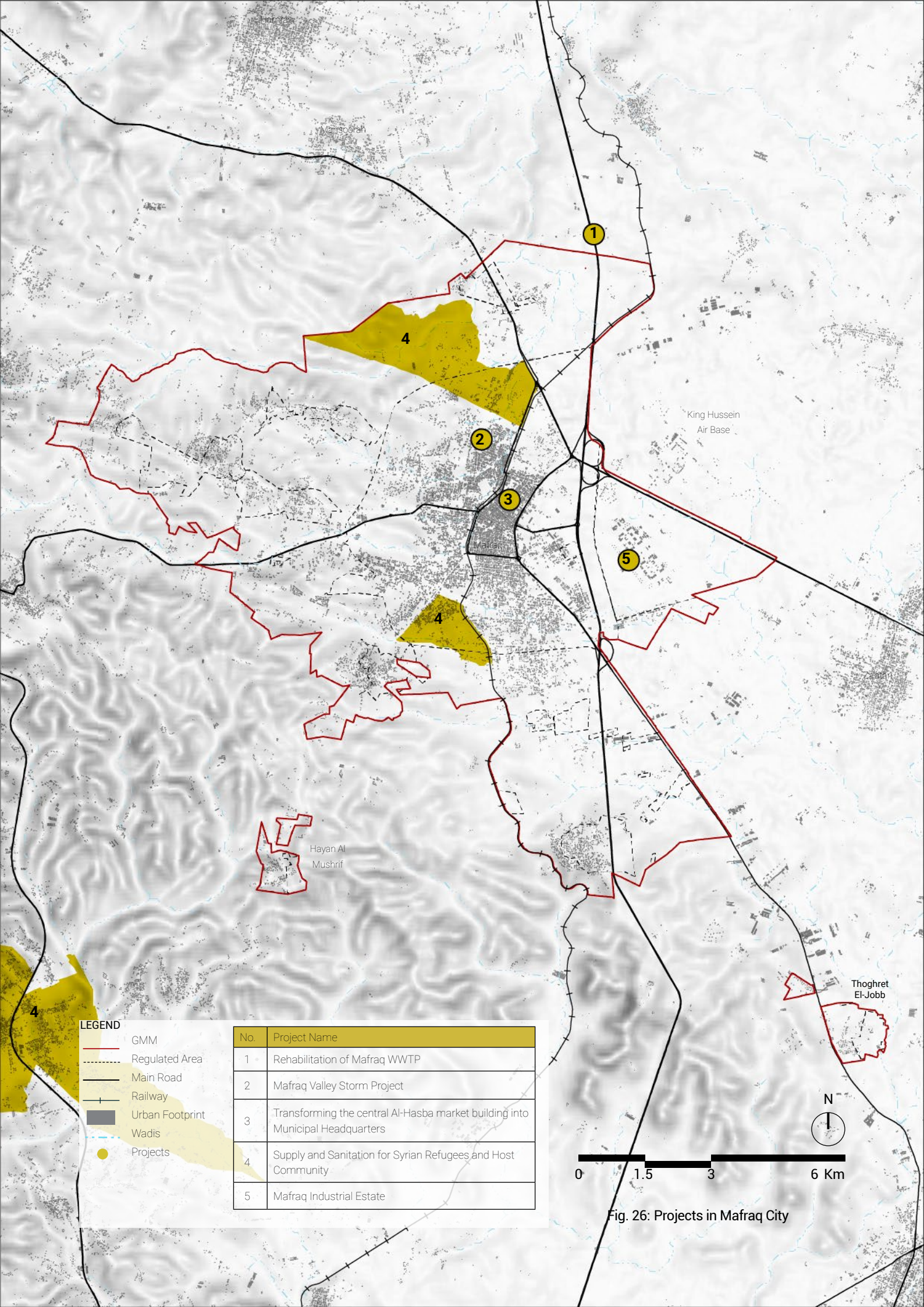
A Climate-Resilient Urban Master Plan (CRUMP) is currently under development for the GMM as part of the aforementioned "Resilient Solutions Against Climate Change" regional project, funded by the AF. This comprehensive initiative aims to address climate change challenges, advance gender equality, foster social inclusivity, and confront displacement issues within the region. The primary objective of the CRUMP is to enable sustainable urban development that aligns with climate projections and vulnerability assessments, thereby ensuring the city's resilience in the face of climate-related impacts. In parallel, the project is actively enhancing the city's sustainability by installing grey water systems in six schools and one mosque in Mafraq. Moreover, the project is facilitating the reclamation of 75 donoms of land in close proximity to the Mafraq WWTP, further contributing to the city's environmental and resource management efforts. GMM has commenced a project to install modern LED lighting systems that are energy-efficient. The initiative is designed to substitute the existing fixtures with more efficient alternatives, resulting in a significant reduction of the high electricity costs, with projected savings of around 60%.³⁷⁹

Major Stormwater Management Projects

Stormwater management initiatives are an integral component of the aforementioned regional project known as "Resilient Solutions Against Climate Change." This project includes the installation of rainwater harvesting systems in schools located in Mafraq city. The primary objective of these installations goes beyond the management of resources; it also embraces the promotion of environmental sustainability and fostering community awareness about responsible management. Furthermore, with the support of MOLA, GMM has constructed retaining walls along the Mafraq Valley and installed culverts to facilitate the drainage of stormwater and protect nearby residents from potential flooding, particularly during the winter season.³⁸⁰ Additionally, UN-Habitat and the GMM are presently engaged in a Flash Floods Risk Assessment and Hazard Mapping in Mafraq Wadi, Jordan.

Major Industrial Projects³⁸¹

Mafraq Industrial Estate is located at a distance of 10km east of Mafraq city on a 2.25km² plot of land. The project will be executed over three phases. Works include; administration and offices buildings with 3,500 m² built up area, external works, and infrastructure network implementation.



LEGEND

- GMM
- Regulated Area
- Main Road
- Railway
- Urban Footprint
- Wadis
- Projects

No.	Project Name
1	Rehabilitation of Mafraq WWTP
2	Mafraq Valley Storm Project
3	Transforming the central Al-Hasba market building into Municipal Headquarters
4	Supply and Sanitation for Syrian Refugees and Host Community
5	Mafraq Industrial Estate

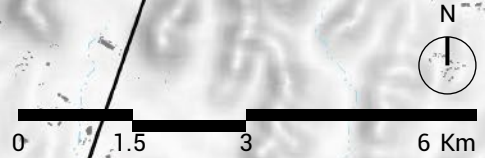


Fig. 26: Projects in Mafraq City

Transport and Mobility

Greater Mafraq Municipality is the strategic centre of the Mafraq Governorate due to its administrative centre and strategic location as a crossroads with bordering countries.

GMM's road network has primary, secondary, and rural roads. However, it is not connected to the surrounding agricultural road network. The main road network is 450km in length, while the secondary network is 297km, and rural is 348km. Most roads are narrow and require maintenance and paving. Although the Hijaz railway passes through GMM, it is currently not operating. Therefore, buses are the only available means of public transport.³⁸²

The number of public transport vehicles in GMM reached 2,704. GMM has its own privately-owned bus networks that are regulated by the Land Transport Regulatory Commission (LTRC), which regulates the routes in and out of the city.³⁸³ In 2021, GMM officially began running buses out of the Mafraq bus station, after getting control of it. The station has been built since 2018, but did not go into full operation due to technical issues. The complex has 276 public buses operating along 11 main routes and 51 sub-routes in Mafraq.³⁸⁴

The LTRC highlighted that the bus stops shown on the map are according to their 2019 plan. They are the collection points known and used by residents. However, infrastructure and signage have not been built yet. This makes it extremely difficult for non-users to switch to public transport, and for non-residents to get around as there is no built infrastructure.³⁸⁵

Mafraq faces many challenges in the mobility sector; commuters in Mafraq heavily rely on private cars. While the dependence is partly explained by cultural factors, it is further aggravated by the lack of policies that regulate privately owned buses, making them unreliable and repelling users from using them. However, the increase in population density, lack of public transport, lack of road network planning, narrow roads, lack of parking spaces coupled with poor parking management has led to haphazard parking in the city centre, increasing congestion. GMM also highlighted that the increase in traffic and heavy vehicles movement is causing damage to roads and underlying infrastructure that require constant maintenance. As such, there is a need to develop a transportation plan to organize the transportation sector.³⁸⁶

According to a study by the International Youth Foundation, 30% of parents in Mafraq do not allow their children to use public transportation, stating that it will put them at risk of being harassed, especially young girls. This demonstrates that women are at a disadvantage with the current transportation system, which hinders their access to education and economic opportunities. Moreover, multiple stops and uncoordinated bus services are the two leading challenges for employees. As a result, 48% of employees in Mafraq arrive 15 to 45-minutes late to work. This results in salary deductions, which is not feasible since an average of 23% of their salary is already being spent on these long and unreliable commutes.³⁸⁷

Moreover, in 2016, university students voiced their frustration with the poor public transport system, by boycotting the service in demand of a better transport system. One of the main issues included overcharging students travelling 4km from the Mafraq bus terminal to the university gate JD0.20 instead of JD0.15, representing an increase of approximately 33.3%. Additionally, another key issue is the shortage of buses, whereby only 18 buses were serving the 15,000 students at the time. These buses are not owned by the university, but are part of the LTRC network. Accordingly, there is no organized schedule, which means students sometimes have to wait for hours until the bus departs. This also results in overcrowded buses that students said usually carry double their capacity.³⁸⁸

The map clearly shows that the public transport network only serves the centre and north-east of GMM. Within a 5-minute walking distance, 28% of individuals have access to the public transport route, whereas 26.4% and 56.9% of GMM residents can reach bus stops within 15 and 30 minutes, respectively.

The lack of affordable transport options to enable mobility between places of residence, workplace, and medical facilities has hindered accessibility to these facilities for all residents, particularly refugees.

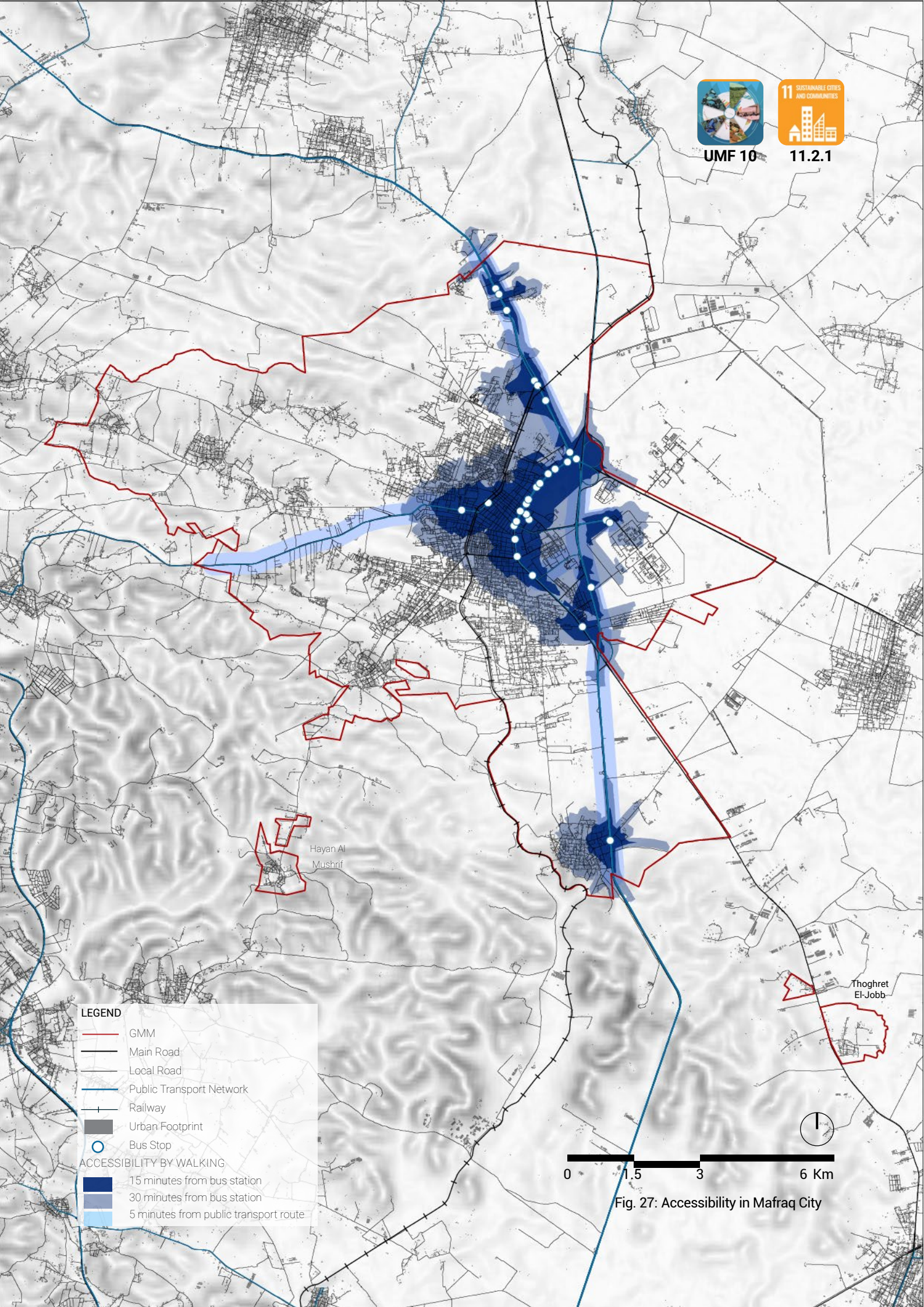
The data used to develop this map can provide support to the municipality in reporting on key indicators associated with UMF 10 and SDG 11.2.1. This also facilitates stakeholders, policymakers, and residents in developing targeted solutions tailored to the distinct characteristics and needs of various areas within the city.



UMF 10



11.2.1



LEGEND

- GMM
- Main Road
- Local Road
- Public Transport Network
- + Railway
- Urban Footprint
- Bus Stop
- ACCESSIBILITY BY WALKING**
- 15 minutes from bus station
- 30 minutes from bus station
- 5 minutes from public transport route

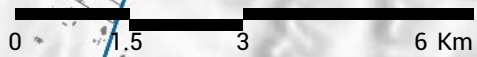


Fig. 27: Accessibility in Mafraq City

Access to Basic Services



UMF 09



1.4.1

Access to basic services and public facilities such as clean water, sanitation, healthcare, education etc. is crucial to improve quality of life and achieve the SDGs at the local level. Accessibility to public services is especially a key component of SDG 1.4.1 and UMF-09. The following pages therefore dive into an analysis of accessibility to basic infrastructure services and public facilities in Mafraq which will also inform the final analysis of how compact, connected, and vibrant the city is.

Overall, Greater Mafraq Municipality residential areas are well-connected to basic service networks, including water, electricity, and telecommunication. However, GMM has a limited sewerage network and lacks a stormwater drainage system.

Access to Energy and Electricity

The Irbid District Electricity Distribution Company (IDECO) is the main and only provider of electric power in GMM. The total number of household subscribers in GMM reached 26,000 subscribers in 2019.³⁸⁹ Approximately 85% of the population in GMM is now connected to the electricity network. However, this figure falls short by around 13% in comparison to both Irbid City and the national average within the Kingdom.

Private households, on average, consume 500 kilowatt-hours per month. Several private residences are outfitted with renewable energy devices, capable of generating an average of 30 KW/day per house during the summer months. Additionally, 70% of the roads are equipped with a lighting system.³⁹⁰

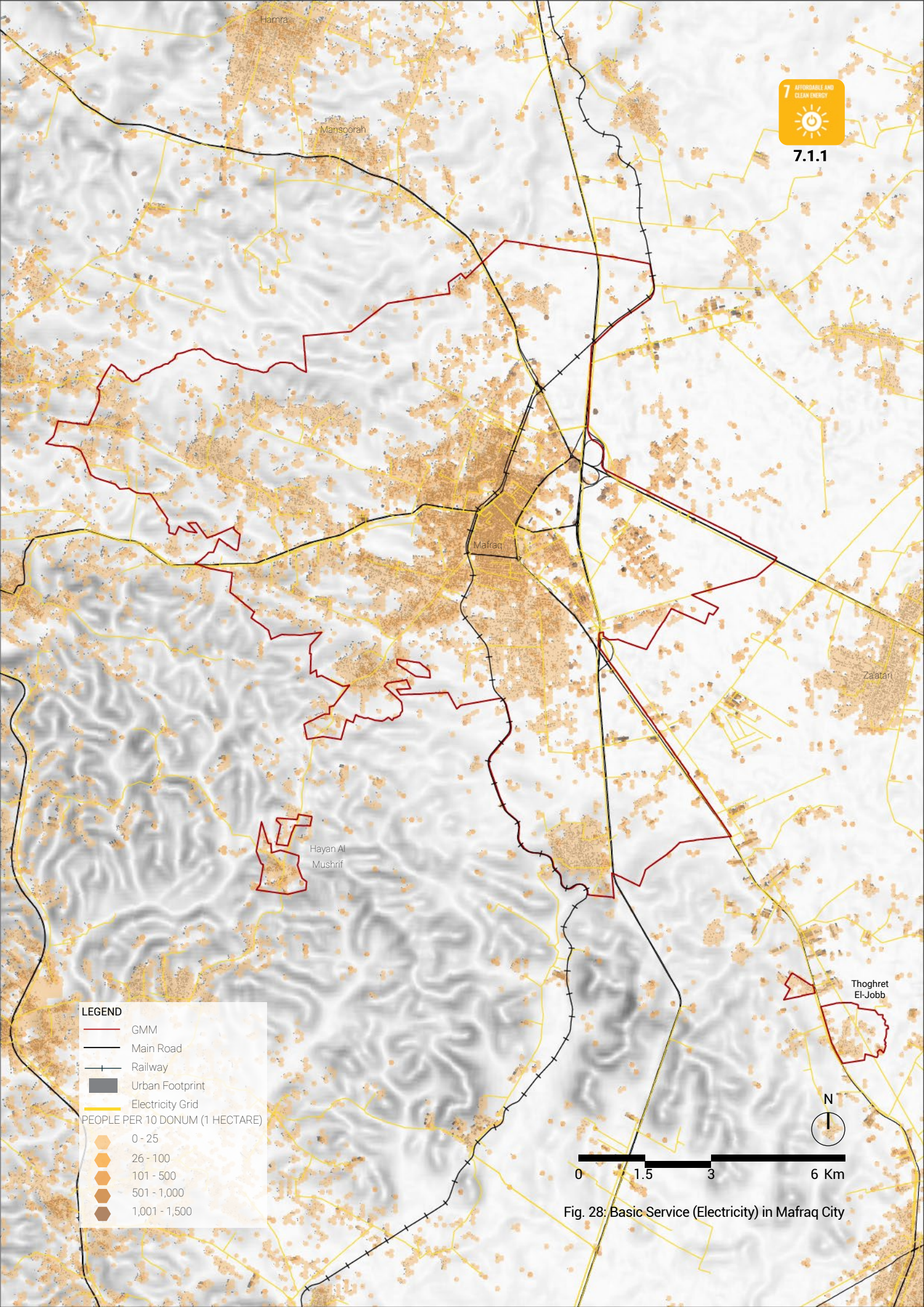
Nevertheless, the challenges faced by the energy and electricity sector in GMM include:

- GMM suffers from the burden of its energy bill for road lightening that constitutes a big portion of the municipality costs.³⁹¹
- Lack of alternative resources of electrical energy.

The data used in the map can support the municipality in reporting on the SDG 7.1.1 indicator. This also facilitates stakeholders, policymakers, and residents in developing targeted solutions tailored to the distinct characteristics and needs of various areas within the city.



7.1.1



LEGEND

- GMM
- Main Road
- Railway
- Urban Footprint
- Electricity Grid

PEOPLE PER 10 DONUM (1 HECTARE)

- 0 - 25
- 26 - 100
- 101 - 500
- 501 - 1,000
- 1,001 - 1,500

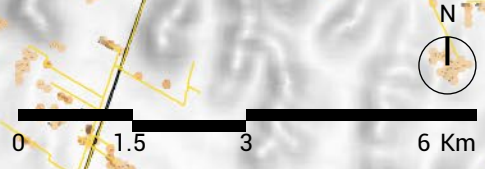


Fig. 28: Basic Service (Electricity) in Mafrq City

Access to Water

A high rate of natural population growth, massive influx of refugees coupled with physical water scarcity, has created an imbalance between population and water.³⁹² Exposure to water scarcity is one of the biggest fears and challenges at the Mafraq City level.

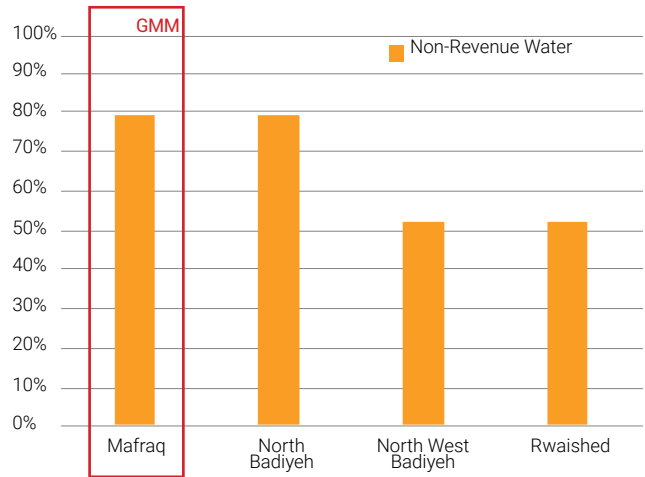
The Yarmouk Water Company, with its branch located in GMM, provides delivery services to GMM residents. Approximately 95% of the population within GMM boundary is served by the water network.³⁹³ The average daily water consumption stands at over 122 liters per person, equivalent to 4.3 m³ per week or 0.86 m³ per week per individual, considering an average household size of 5 people (approximately 46 m³ per person annually). This contrasts with Jordan's per-capita water consumption of 61m³ in 2022, equivalent to 167 liters per person per day.³⁹⁴ Non-revenue water in Mafraq is the highest in the Kingdom and accounts for 79%. It can be classified as technical losses - due to poor infrastructure, leaking pipes and low maintenance, or administrative losses - as a result of broken meters, illegal wells, centralization, and weak governance.³⁹⁵

In an effort to manage limited resources, urban domestic water in GMM is supplied on an intermittent and rationed basis. Prior to the influx of Syrian refugees, water was delivered once a week for a maximum of six hours and families relied on storage tanks until the next supply. However, water is now distributed infrequently (once a week for a few hours), by rotation and by neighbourhood. Supply is disrupted by frequent shortages and by weak pressure. This requires pump installations at an extra cost to poor households along with the related electricity costs of running them.³⁹⁶ Residents must rely on water delivered by private tanker companies, which is a costly alternative, especially since prices are not controlled by the government.³⁹⁷

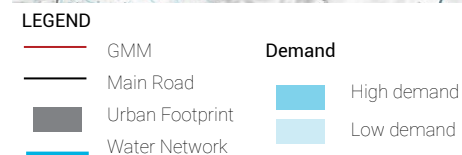
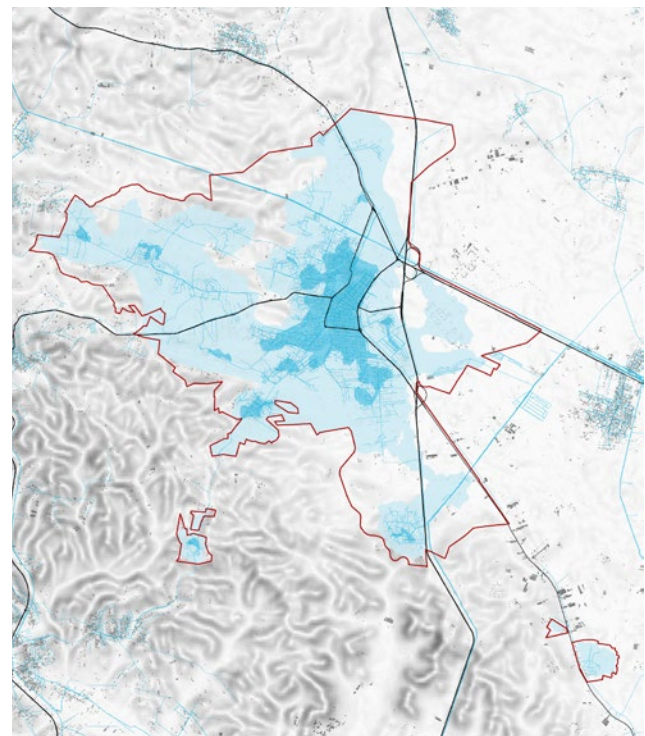
Intermittent flows exacerbate network problems with pressure shocks and damage to gauges, which in turn increases the danger of deteriorated network pipes sucking in sewage, with concomitant health risks. Moreover, intermittent supply contributes to reduced quality due to poor storage facilities and stagnating water.³⁹⁸

The capacity assessment tool measured the demand on the existing water network, which indicates the sufficiency of the existing water network (whereby high demand means low network sufficiency) by factoring in the pipes' diameter and length, as well as the number of people served. The results designate areas of high and low demand on the tested infrastructure network. Overall, the water capacity assessment revealed that there is a relatively high demand on water network at the city center, gradually diminishing as one moves towards the GMM administrative boundary, as illustrated in the map.

The data used in the map can support the municipality in reporting on the SDG 6.1.1 indicator. This also facilitates stakeholders, policymakers, and residents in developing targeted solutions tailored to the distinct characteristics and needs of various areas within the city.



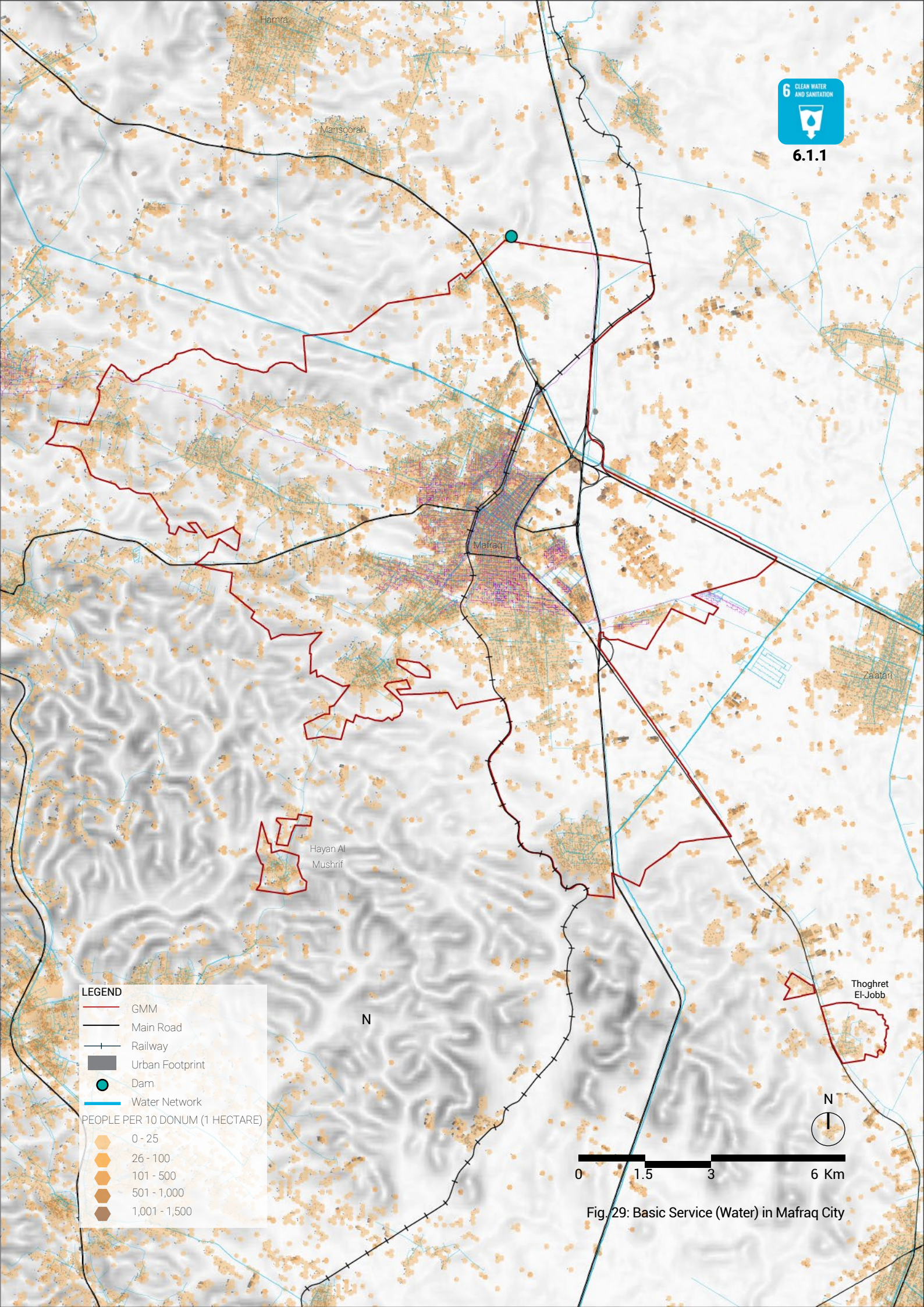
Non-Revenue in Mafraq Governorate
Source: Geographic Multidimensional Vulnerability Analysis (UNICEF, 2020)



Water Demand in Mafraq City



6.1.1



LEGEND

- GMM
- Main Road
- Railway
- Urban Footprint
- Dam
- Water Network

PEOPLE PER 10 DONUM (1 HECTARE)

- 0 - 25
- 26 - 100
- 101 - 500
- 501 - 1,000
- 1,001 - 1,500

Fig.29: Basic Service (Water) in Mafraq City

Access to Sewerage Network

Based on the available GIS data, 55.5% of GMM's total population is connected to sewerage network. The sewerage network does not extend beyond the borders of the city center into other districts. This means that 44.5% of the population discharge their waste into septic tanks or cesspools. However, emptying septic tanks is expensive, and has seen a spike in prices, from JD 25 to JD 30, as demand increased. The prices charged for emptying septic tanks are not regulated by the Government, this puts an unjustified burden on lower-income families who have no other choice, prompting some house owners to dispose of effluent illegally.³⁹⁹

Waste water generated in GMM is currently collected in Mafraq waste water treatment plant (WWTP), via two waste pump stations, East Mafraq and Mansheyat Bani Hasan. The WWTP is located 6km from the city center, along the northern border of GMM, it serves a population of about 160,000 residents and manages a daily flow of 14,500m³ of wastewater. The plant is approximately 80,000m³ and can accommodate a total of about 6,550m³ of waste per day. The plant directly receives waste water from the municipal sewerage network, which was upgraded in 2015 after identifying significant clogging in the pipes, and also has a reuse system of a 90,000m³ storage pond, a pump station, and an irrigation pipeline network.⁴⁰⁰

Mafraq's already derelict sewerage network makes supply more susceptible to contamination due to the combined threats of disruption, namely, rationing and increasing discharge of waste water into unmanaged cesspools. The increasingly unhealthy water and sanitation conditions impact health. A survey conducted in 2013, on Syrian refugees in northern governorates, revealed that the prevalence of diarrhoea in children under 2 is 7.2% higher in Mafraq, which can be attributed to the city's dilapidated network.⁴⁰¹

The data used in the map can support the municipality in reporting on the SDG 6.2.1a indicator. This also facilitates stakeholders, policymakers, and residents in developing targeted solutions tailored to the distinct characteristics and needs of various areas within the city.

Solid Waste Management

SWM is one of the sectors that faced multiple challenges with the influx of Syrian refugees into GMM. Despite that, municipal waste collection is reported to cover 75% of the population. GMM disposes around 76 to 120 tons of solid waste at the Al Husseinyyat landfill daily, which is located 30km from the city. The increase in waste production poses an economic burden on the municipality, which now amounts to 40% of GMM's annual budget, including fuel, maintenance, and purchasing new machinery (compactors and vehicles) and waste containers.⁴⁰² Based on the Local Solid Waste Management Plan for GMM that has been

developed in 2020 by GMM in coordination with GIZ, some of the main challenges with waste management services at GMM include:

- No transfer station within GMM boundary.
- Waste collection vehicles (garbage trucks) are old.
- The number of waste collectors does not cover the need. There are around 122 municipal employees working in the waste collection.
- The number of operating machines is 4 out of 15 (23% of the fleet have an operational age that exceeds 12 years).
- Lack of maintenance (70% of the waste containers are in poor operational condition and need to be replaced or maintained).
- The amount of waste is around 180 tons per day, and the daily capacity of compactors is approximately half at 96 tons.
- The lack of a SWM database, to inform decision makers about the current situation and needs.
- Environmental and health issues due to the accumulation of waste near waste containers, which result in the emission of unpleasant odours, the spread of insects, and stray dogs.
- There is no plan to evaluate and develop municipal solid waste collection routes.
- No financial management system or budget for the SWM sector.

The average waste generation per capita is 1.12 kg/day and 0.64 kg/day for Jordanians and refugees residing in urban areas respectively, while in rural areas average waste generation is estimated at 0.92 kg/day from Jordanians and 0.52 kg/day for refugees. GMM collects SWM fees through adding 36 Jordanian Dinars annually to electricity bills for residential and commercial subscribers, accordingly, cost recovery was estimated at 77% in 2019.⁴⁰³

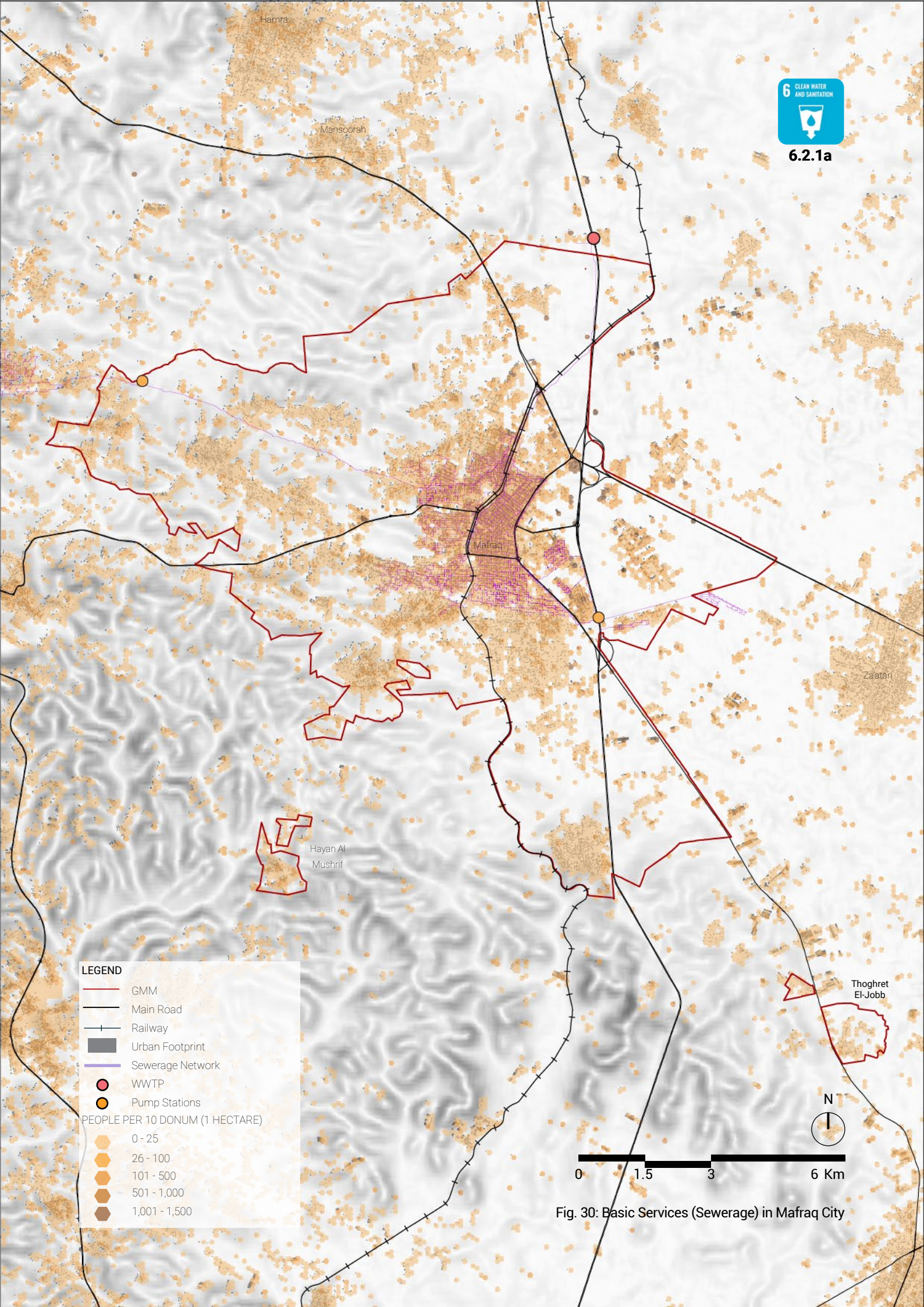
Furthermore, the SWM plan includes a list of proposed projects and required funds to meet future SWM needs, such as expanding the scope of reuse and recycling of solid municipal waste materials. Although GMM currently lacks a recycling program and does not produce compost, there is evidence of a cardboard sorting station along the highway connecting Mafraq to Amman. This facility is operated by a private company in collaboration with a German agency.⁴⁰⁴

Stormwater Drainage Network

GMM currently lacks a stormwater drainage network or an efficient collection system. Consequently, rain primarily finds its way into the sewerage network through the manholes. To mitigate the impact of this issue, the municipality conducts periodic and continuous maintenance of the drainage culverts within the city and its adjacent areas, focusing particularly on these efforts every October, just before the onset of the winter season. Despite these measures, the persistence of flash floods and water scarcity continues to pose significant challenges for GMM.



6.2.1a



LEGEND

- GMM
- Main Road
- Railway
- Urban Footprint
- Sewerage Network
- WWTP
- Pump Stations

PEOPLE PER 10 DONUM (1 HECTARE)

- 0 - 25
- 26 - 100
- 101 - 500
- 501 - 1,000
- 1,001 - 1,500

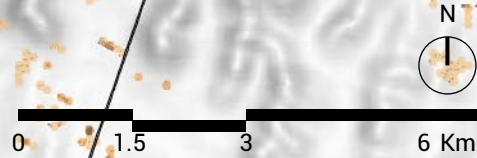


Fig. 30: Basic Services (Sewerage) in Mafraq City

Access to Public Facilities

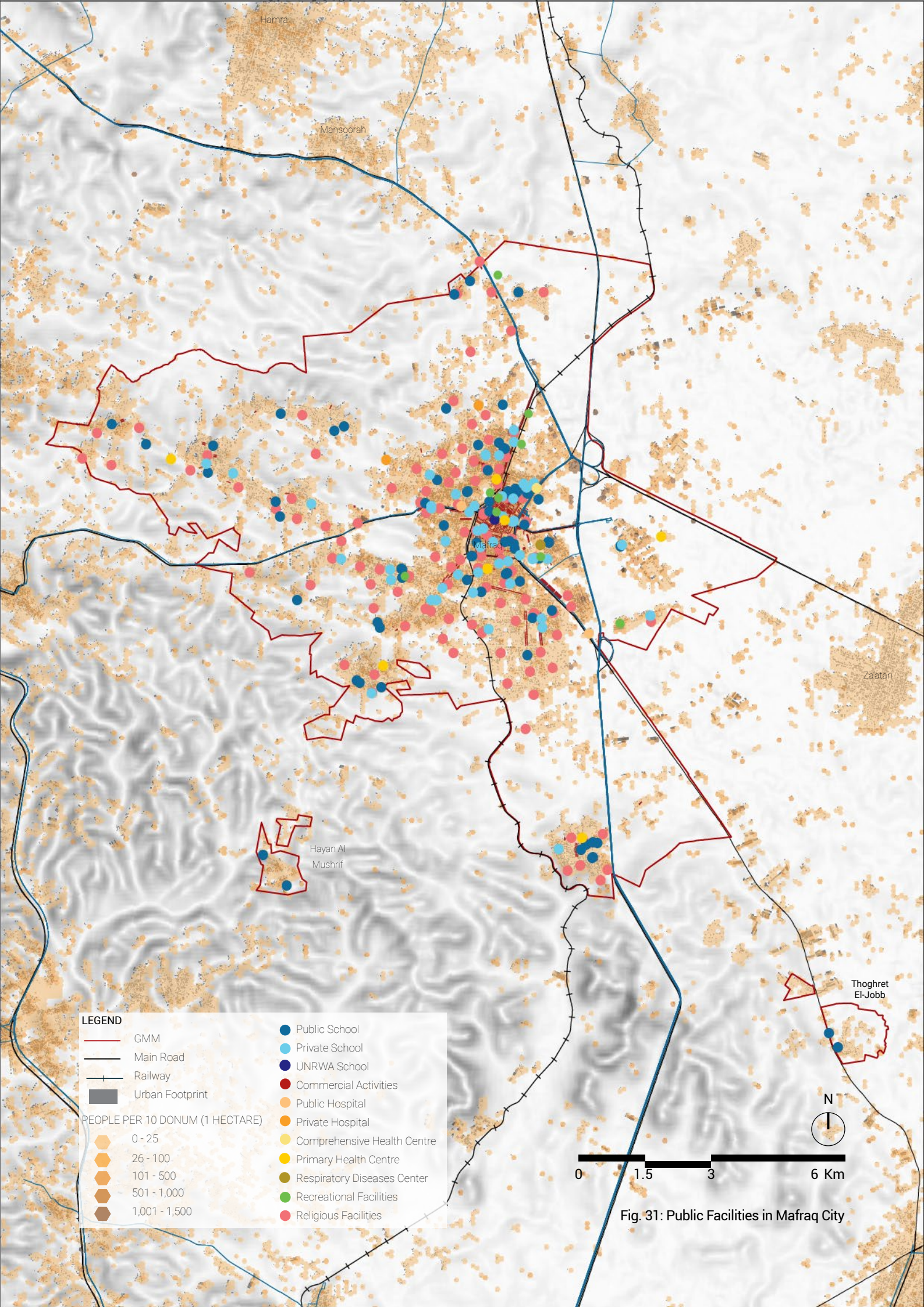
GMM provides its services to everyone living within its districts. The municipality provides physical services related to street cleaning and environmental-related aspects, building permits, markets, health inspection, and maintenance of the urban infrastructure. All services provided by the municipality and activities targeting the community are available to locals and refugees alike.

The map shows the spatial distribution of the public facilities within GMM's administrative boundary including educational, healthcare, religious, commercial, and recreational facilities. Through spatial analysis and research, access to and quality of each of the identified public facilities is further investigated in the pages to follow.

Public facilities are mainly concentrated in the city centre, and decrease as you move out towards the peripheries of GMM.



Mosque, Mafraq City, UN-Habitat, 2023



LEGEND

GMM	Public School
Main Road	Private School
Railway	UNRWA School
Urban Footprint	Commercial Activities
PEOPLE PER 10 DONUM (1 HECTARE)	
0 - 25	Public Hospital
26 - 100	Private Hospital
101 - 500	Comprehensive Health Centre
501 - 1,000	Primary Health Centre
1,001 - 1,500	Respiratory Diseases Center
	Recreational Facilities
	Religious Facilities

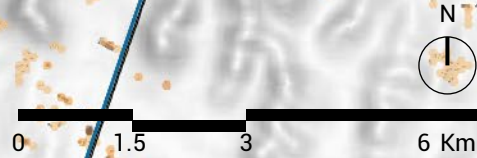


Fig. 31: Public Facilities in Mafraq City

Access to Public Facilities / Commercial Activities

Commercial land use within GMM's regulated area is 3%. As depicted in the map, commercial activities are most evident at the districts around the city centre and along main roads. They are seen to decrease as you move out towards the peripheries of GMM. The commercial sector in Mafraq consists mostly of malls, shops, restaurants, and the service sector.

Based on the SDG indicator analysis of public services within a 15 and 30 minute walking distance, 21.2% of GMM's population has access to commercial activities within a 15-minute walking distance and 42.6% has access within a 30-minute walking distance.

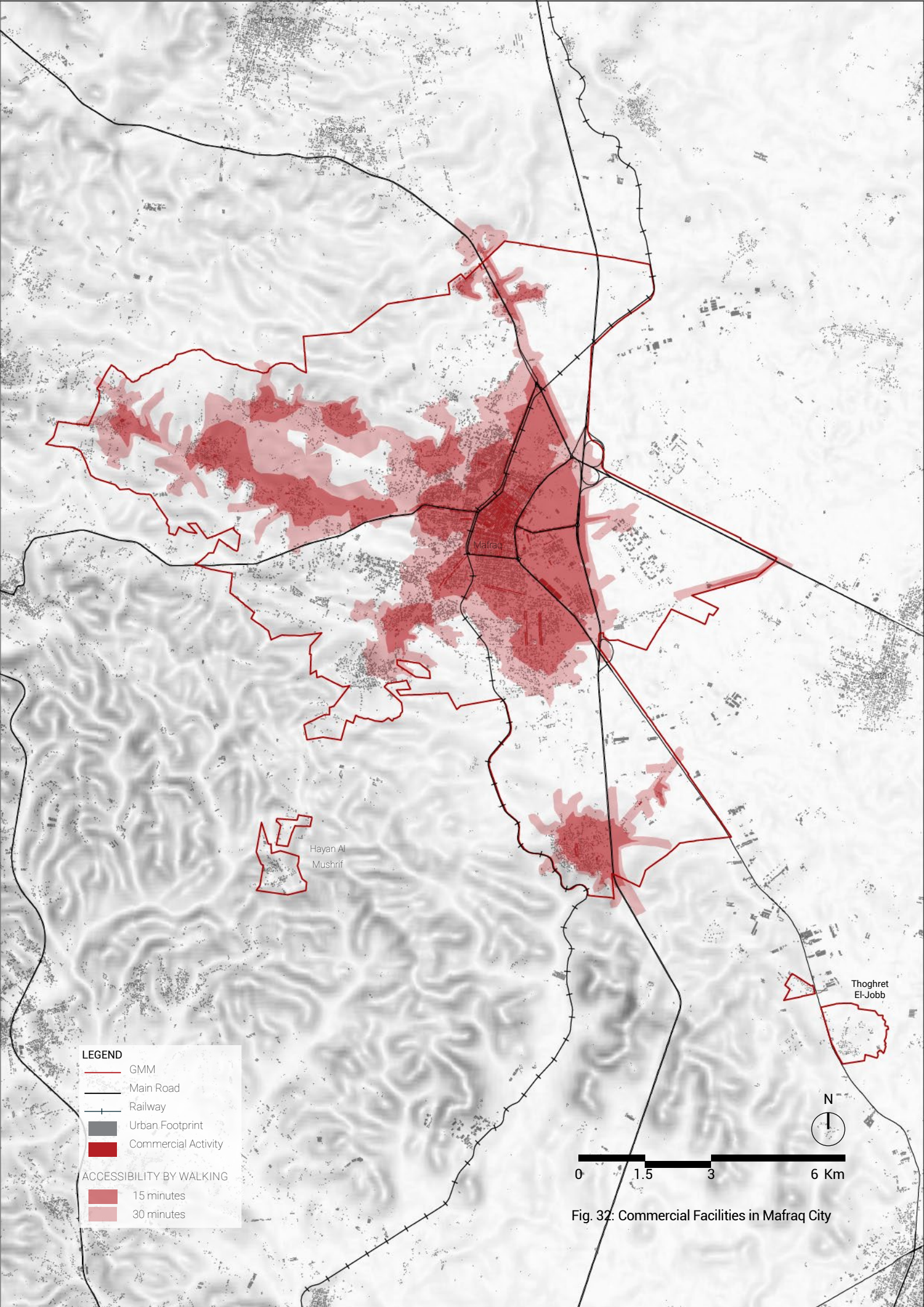
Furthermore, local standards indicate that the service catchment radius of commercial activities is 500 meters. Accordingly, 69.4% (29.7km²) of GMM's urban

area is fully served with commercial activities, while 30.6% (13.1km²) have no commercial facility coverage.

The two regulated areas in the southern region of GMM lack essential commercial services, necessitating residents to travel to the nearest commercial hub when in need.



Commercial Street, Mafraq City, UN-Habitat, 2023



LEGEND

- GMM
- Main Road
- Railway
- Urban Footprint
- Commercial Activity

ACCESSIBILITY BY WALKING

- 15 minutes
- 30 minutes

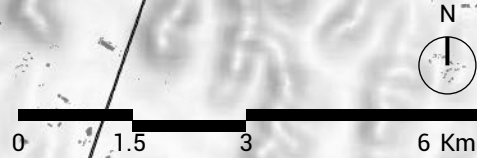


Fig. 32: Commercial Facilities in Mafraq City

Access to Public Facilities / Healthcare Facilities

As a country, Jordan has quite an advanced healthcare system and is considered a regional leader for the provision of medical services. In 2020, 9% of Jordan's GDP was devoted to healthcare services, which is high compared to other countries. Jordan has long stood as one of the most desirable locations in the region for medical tourism, prior to COVID-19, Jordan received as many as 250,000 foreign patients with over \$1 billion in revenues annually.⁴⁰⁵

A steadily growing domestic population, and continuous influx of refugees has led to a significant increase in the demand for hospitals as well as demands for suitable, sustained healthcare infrastructure and services overall.⁴⁰⁶ The country's healthcare system is mainly divided between public, private, and military institutions. The public sector provides 37% of all hospital beds in the country while the military's Royal Medical Services provides 24% of beds, and the private sector provides 36% of beds.⁴⁰⁷ Currently, there are 117 hospitals in Jordan of which 69 are private hospitals, 31 governmental hospitals, 15 hospitals for the royal medical services, and 2 university hospitals.⁴⁰⁸

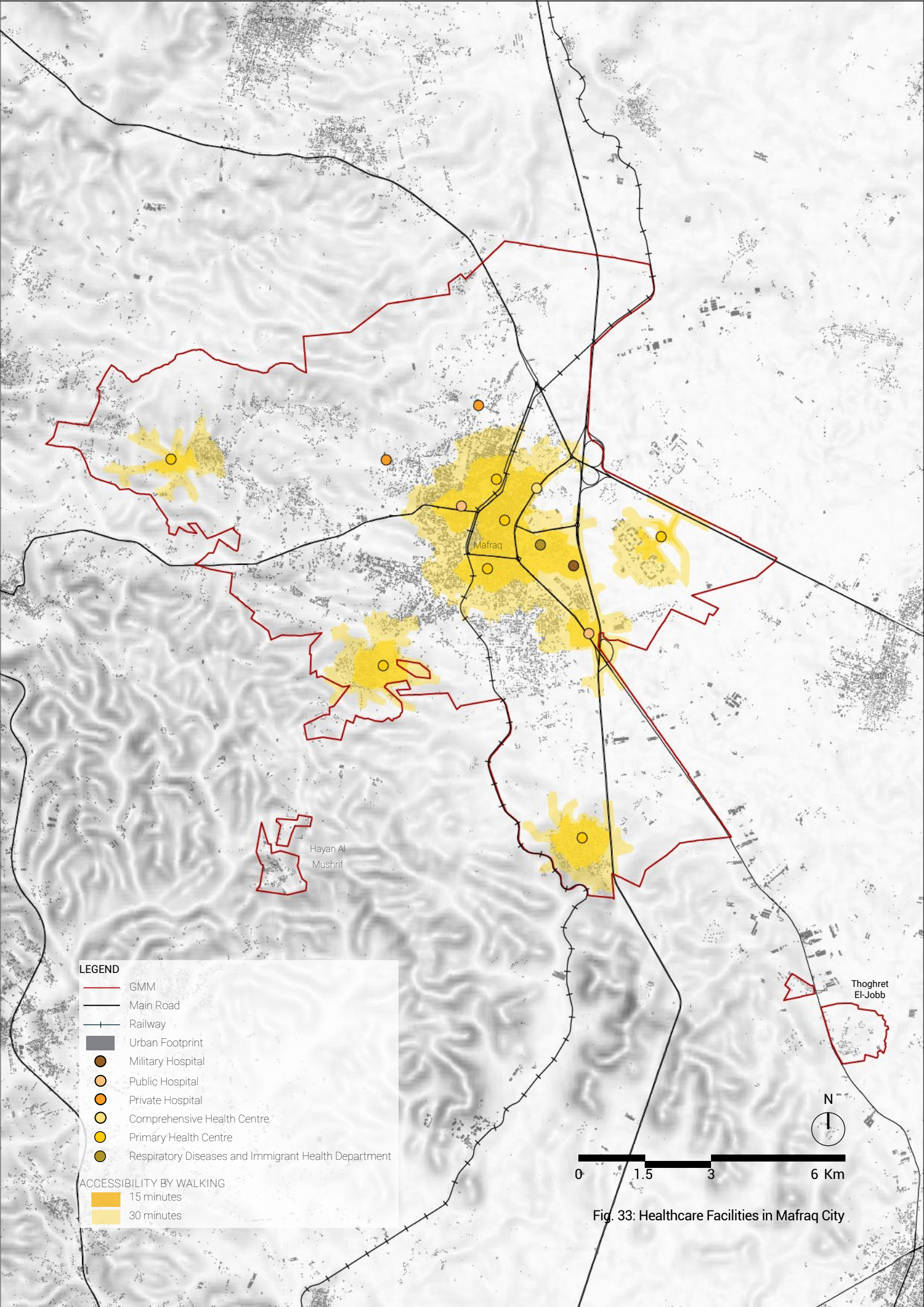
In addition to the public and private sectors, a significant portion of healthcare in Jordan, specifically for refugees, is provided through programmes led by the United Nations and non-governmental humanitarian agencies. UNRWA is the dominant provider of primary healthcare for Palestinian refugees.⁴⁰⁹ Furthermore, UNHCR, together with health partners, continues to support access to primary, secondary, and tertiary healthcare services for all other refugees in the camps and urban areas, through the referral system and the cash-for-health programme.⁴¹⁰ UNHCR supported health services are available for free for all vulnerable refugees excluding Palestinians.⁴¹¹

Additionally, until late 2014, the Jordanian Ministry of Health provided healthcare free of charge to all Syrian refugees registered with the UNHCR. This caused a large burden on the healthcare system.⁴¹² In response, the GoJ announced a new health access policy in early 2018, reducing the level of access to all refugees outside camps, where refugees were required to pay 80% of the full foreigner's rate at MoH facilities (this represented a two- to five-fold increase in service rates).^{413,414} The new policy and huge inflation in the cost of health services caused considerable hardship for all refugees living outside camps. This affected the access to healthcare facilities and utilization behaviours among urban refugees. The impact on vulnerable Syrian refugees was the most significant, whereby 69% of households experienced reduced access to healthcare, 9% reported that medicine was unaffordable, 17% of households have

reportedly increased their level of debt, and more than 53% of Syrians spent more than 10% of their expenditure on health items.⁴¹⁵ In 2019, the Government of Jordan reinstated subsidized access to public healthcare for Syrian refugees.⁴¹⁶ This was extended in 2020, to all non-Syrian asylum seekers and refugees across Jordan.⁴¹⁷ Accordingly, primary, secondary, and some tertiary healthcare services are available to all registered refugees from all nationalities at the non-insured Jordanian rate at public health centres and Governmental hospitals.⁴¹⁸ The non-insured Jordanian rate is normally considered affordable for non-vulnerable individuals especially at secondary and tertiary levels of care.⁴¹⁹ Based on the latest population census, about 56% of the Kingdom's overall population are insured.⁴²⁰ The majority of Jordanians have insurance with the public sector, while the remainder have coverage through private, university, or military sources.

At city level, health care services in GMM include 5 hospitals (2 public, 2 private, and 1 Military), and 9 health centres, most of which are located in the city center, with limited access for peripheral neighbourhoods. It is noteworthy to mention the Emirati Field Hospital, established in 2012 with the initial aim of serving Syrian refugees; however, its current status leans more towards that of a clinic center. GMM has a low hospital bed to inhabitant ratio at 6 beds per 10,000 citizens, compared to 15 at the governorate level, and 14 at the national level.⁴²¹ The health sector was one of the most affected by the influx of Syrians into Mafrq, some of the main challenges include but are not limited to; poor building structure for health centres, especially apparent in rented buildings, deeming them not suitable for function,⁴²² a shortage of medical devices and equipment in public hospitals,⁴²³ an increase in annual patients - during 2018 health centres in GMM saw 572,854 patients, 30% of which were Syrian refugees,⁴²⁴ increase in hospital occupancy rate from 67% to 95%,⁴²⁵ a 28% increased demand for medicine and medical supplies,⁴²⁶ all of which result in, increased pressure on doctors and medical staff.⁴²⁷

The map displays the spatial distribution of existing hospitals, and health centres in GMM, there is a clear disparity between neighbourhoods around the ease of access to health centres, where only 24.8% of GMM's population is within 15-minute walking distance, and 56.1% within 30-minute walking distance. The neighbourhoods that suffer most from limited accessibility include but are not limited to; Industrial City, King Abdullah, Prince Hamzah and Al-Mazzeah neighbourhoods in the south; and, Al-Nasr and Al-Jundi neighbourhoods in the north.⁴²⁸



LEGEND

- GMM
- Main Road
- Railway
- Urban Footprint
- Military Hospital
- Public Hospital
- Private Hospital
- Comprehensive Health Centre
- Primary Health Centre
- Respiratory Diseases and Immigrant Health Department

ACCESSIBILITY BY WALKING

- 15 minutes
- 30 minutes

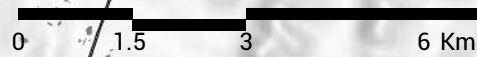


Fig. 33: Healthcare Facilities in Mafraq City

Access to Public Facilities/ Education Facilities

According to data from the DOS, Jordan has a substantial school-age population, whereby 1.8 million children are between the ages of 6 and 15 as of the end of 2017.⁴²⁹ Children of Jordanian nationality are the majority at 84%, whereas Syrian children account for 10% and other nationalities for 6%.⁴³⁰

As the Syrian conflict continues, Syrian refugee children in Jordan are confronting obstacles to education that grow more acute as they progress into secondary education. The main factors contributing to the decreasing education enrolment of Syrian refugees in Jordan includes poverty, the lack of affordable and safe transportation, the poor quality of education in schools for Syrian children, the low value of continuing education for Syrian refugees given their limited professional opportunities in Jordan, administrative barriers to enrolment, as well as the lack of accommodations for children with disabilities.⁴³¹ To alleviate the burden on over-crowded schools in areas where Syrian families are concentrated, the Ministry of Education has facilitated double shift schooling in Jordanian schools to accommodate the massive numbers of refugee children who wish to continue their education.⁴³²

Basic education in Jordan comprises of 10 years of mandatory education for students from the ages of 6 until 16 years old. This is free for students in public schools and advised by the Ministry of Education. Overall, the Jordanian educational system consists of 2 years of preschool education, 10 years of compulsory basic education, and 2 years of secondary academic or vocational education.⁴³³ Furthermore, schools in Jordan are mainly categorised into private, public, and military schools. According to GMM's Local Strategic Plan, most education related indicators are in-line or above governorate and national levels. However, there is a deterioration in some indicators, such as the increase in the number of rented schools by 17% and an increase in the student to teacher ratio, 12:1 compared to 11:1 at governorate level, and an increase in the number of schools working two shifts, which decreases total time spent in school by students. In regards to higher education, GMM has one public university, one community college, and a vocational training center. The plan also highlights the importance of developing a specialized technical college for agriculture and renewable energy.⁴³⁴

There is a total of 129 schools in GMM, 88 of which are public schools (59 primary and 29 secondary), 1 UNRWA school, and 39 private schools. 26 public schools within GMM offer double shifts to accommodate refugee population. Moreover, 20 of the public schools are currently in leased

buildings.⁴³⁵ These rented facilities, originally designed for residential purposes, cannot be modified to include features like fences, playgrounds, or other necessary utilities, making them inadequately equipped for educational purposes.⁴³⁶ The cost of private schooling is very expensive and deemed unaffordable for the majority of the population, accordingly, a large percentage of students attend public schools. The average class size is 26 students,⁴³⁷ with a student-to-teacher ratio of 16 comparing to the governorate-level ratio of 16.3,⁴³⁸ and the Kingdom-wide average of around 15.7 students per teacher. This ratio is in line with international standards.⁴³⁹

The street network analysis conducted for public schools in GMM indicates that 52.3% of the population have access to public schools within a 15-minute walking distance, while 77.1% have access within a 30-minute walking distance. Spatially, educational facilities are concentrated in the districts around the city centre, and decrease as you move towards the peripheries of GMM. Based on the local standards,⁴⁴⁰ the service catchment radius for primary and secondary public schools, which is 3 and 5km respectively, is well served within GMM's urban areas.

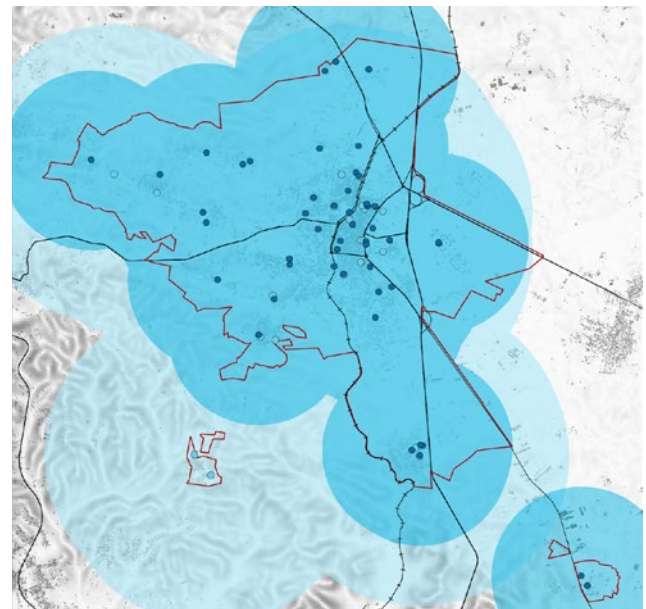










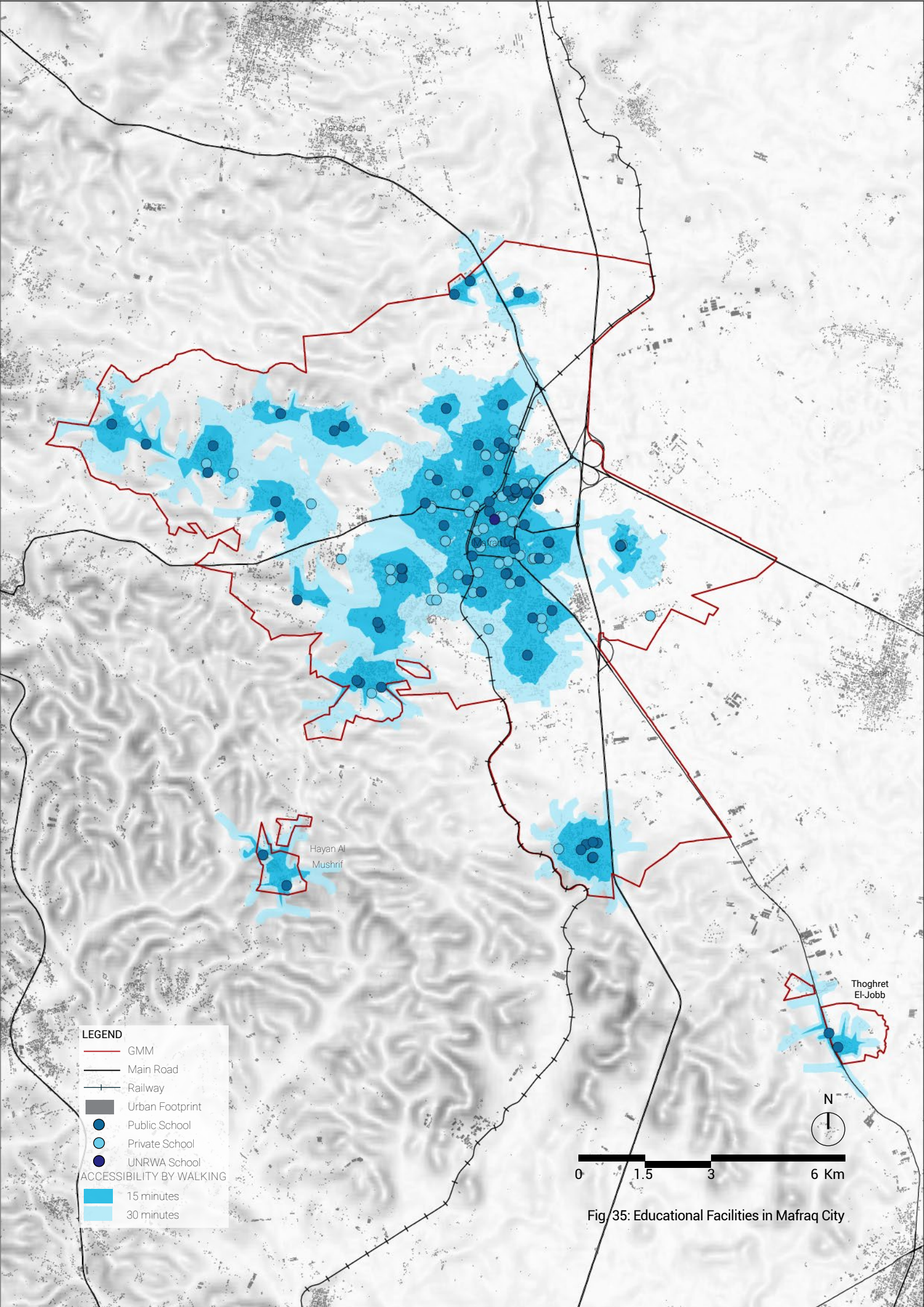


Fig. 34: Educational Facilities Catchment Area in Mafraq City

LEGEND

	GMM		Primary School
	Main Road		Secondary School
	Railway	CATCHMENT AREA	
	Urban Footprint		Primary Schools, 3 Km
	Localities		Secondary Schools, 5 Km
	Urban Centre		



LEGEND

- GMM
- Main Road
- Railway
- Urban Footprint
- Public School
- Private School
- UNRWA School

ACCESSIBILITY BY WALKING

- 15 minutes
- 30 minutes

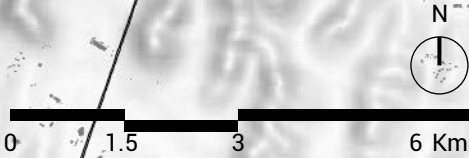


Fig 35: Educational Facilities in Mafraq City

Access to Public Facilities / Recreational Facilities

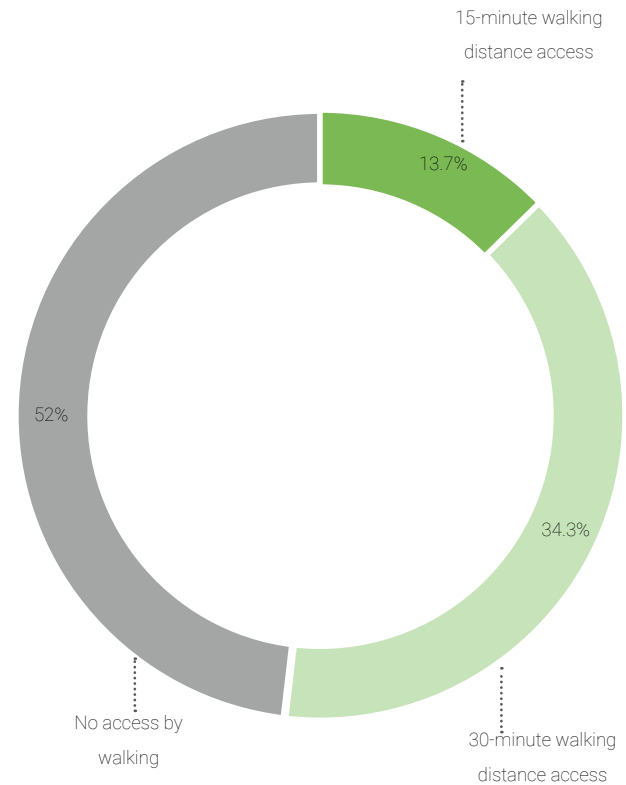
The minimal availability of public parks is considered a challenge across many Jordanian municipalities and cities, with GMM being no exception. The lack of green open spaces and parks is associated with the nature of the climate, including high temperatures and water scarcity.⁴⁴¹

There remains a huge shortage in the number of parks and open spaces, both in rural and urban areas within GMM, with only 9 functional parks. The existing parks are not of high quality and require continuous and periodic maintenance. Based on field investigations conducted by the UN-Habitat team, it was found that four of the existing parks are privately owned and require entrance fees for access. In total, the existing parks cover an area of 0.58km², which accounts for 2% of GMM's total area. According to the 2022 population estimates, open space per capita is calculated at approximately 3.9m² /person, which is a lot lower than the minimum of 9m² set by the World Health Organization (WHO).

As shown in the map and based on the SDG indicator analysis of public services within a 15 and 30 minute walking distance, 13.7% of GMM's population have access to public parks within a 15-minute walking distance while 34.3% have access within a 30-minute walking distance. Additionally, it is worth noting that much of the land classified as parks by GMM are not exploited. The GMM highlighted the fact that there is a publicly available land plot measuring 60 donums in the eastern periphery of Mafraq City intended for transformation into a public park. However, inadequate funding has hindered the Municipality from advancing with the project's implementation.⁴⁴²

Accordingly, public parks in GMM are considered limited, highlighting the need for developing more public parks within Mafraq City. This is especially evident in the northern and southern districts, which lack any public parks at all. Additionally, several areas within the city centre also lack any public parks despite the high number of inhabitants.

The data used here can provide valuable support to the municipality in reporting on key indicator associated with UMF 44 and SDG 11.7.1. This also facilitates stakeholders, policymakers, and residents in developing targeted solutions tailored to the distinct characteristics and needs of various areas within the city.



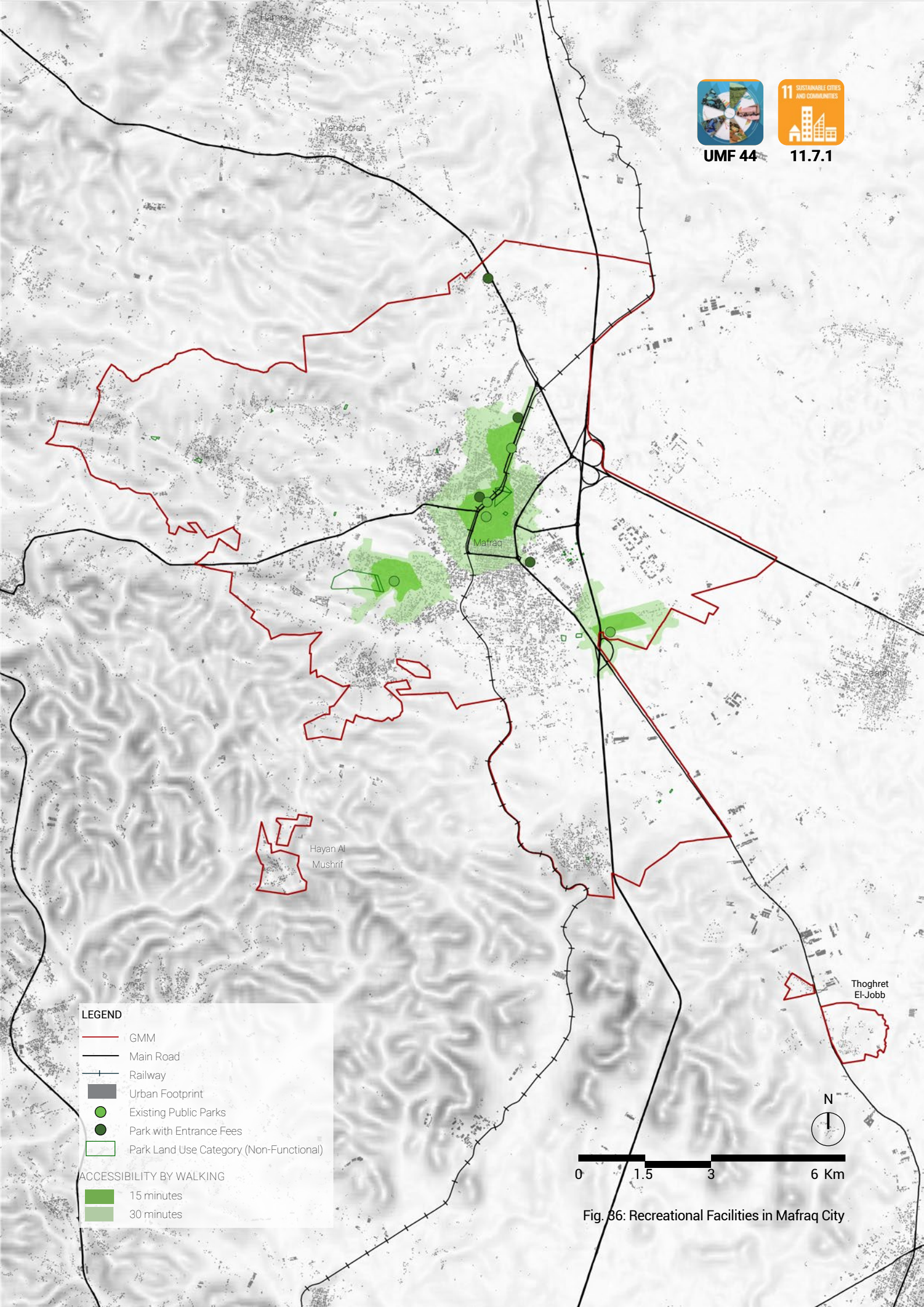
Access to Recreational Facilities by Walking in Mafraq City



UMF 44



11.7.1



LEGEND

- GMM
- Main Road
- Railway
- Urban Footprint
- Existing Public Parks
- Park with Entrance Fees
- Park Land Use Category (Non-Functional)

ACCESSIBILITY BY WALKING

- 15 minutes
- 30 minutes

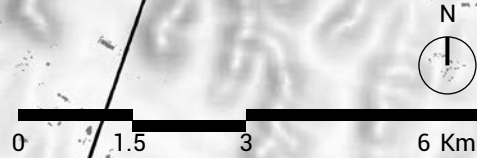


Fig. 86: Recreational Facilities in Mafraq City

Access to Public Facilities / Social and Cultural Facilities

Mafrq was designated as the Jordanian Cultural City for 2017 under the Jordanian Cultural Cities project initiated by the Ministry of Culture in 2007. This annual project selects a Jordanian city to champion culture across governorates, concentrating cultural projects and activities throughout the year. Mafrq City earned this distinction in 2017 due to its unique qualities aligning with the goals of the Jordanian Cultural City initiative.⁴⁴³

The municipal budget is strained, hindering its ability to meet essential citizen needs, particularly in delivering adequate cultural services.⁴⁴⁴

Presently, the Municipality hosts one youth center and two women centres, namely the Mafrq Women Center, Mafrq Youth Center, and Eastern Um Al Naam Women Center. Managed by the Ministry of Youth or other governmental agencies with the support of international organizations, these centres serve the community. Notably, there is a lack of a dedicated center for People with Disabilities in the area, while the Municipality accommodates 145 registered Community-Based Organizations (CBOs).⁴⁴⁵

Regarding the archaeological sites in Mafrq City, the Al Hejaz Railway Station is currently closed, while Al-Fudain is open to the public. Despite their historical significance, both sites are currently characterized as "mute" due to limited tourist visits. In the context of the Local Development Plan for GMM (2024-2028) initiated under the QUDRA2 program, key informant interviews and focus group discussions have proposed a revitalization initiative. The suggestion is to repurpose these archaeological sites into vibrant cultural facilities. Ideas under consideration involve transforming them into summer cinemas, hosting art exhibitions, and establishing a Research Center for Unbuilt Cultural Heritage, with a special focus on traditional gastronomy.⁴⁴⁶

Within the GMM Local Development Plan (2024-2028), specifically aimed at improving access to safe and sustainable city services and facilities, two projects stand out. The first project aims to "Transform archaeological sites into community spaces for events and leisure, ensuring safe access for families, women, and children." The second project focuses on

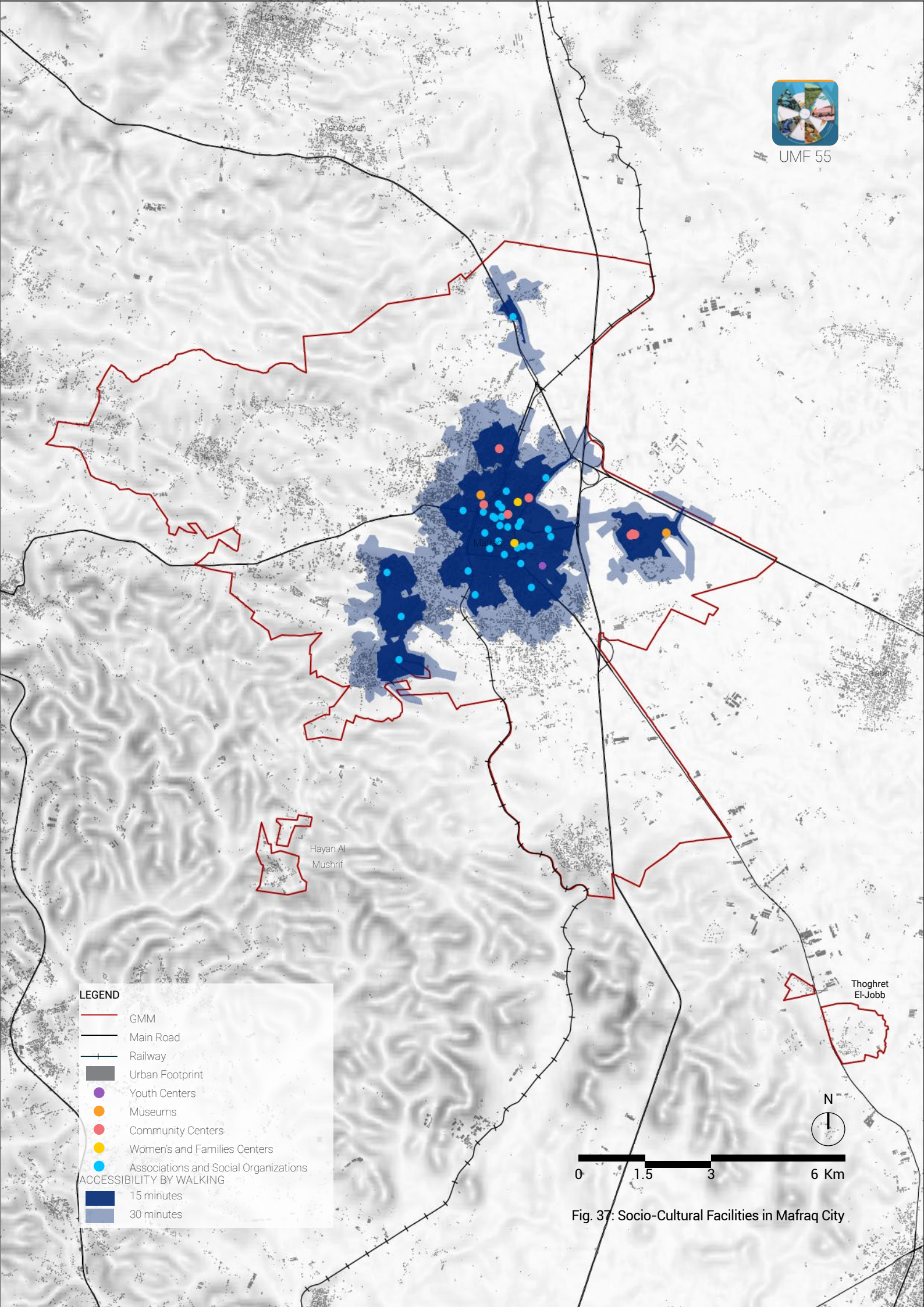
the "Creation of multifunctional public green areas at different scales and purposes, ensuring safe access for families, women, and children, creating a community space for events." Both projects align with a cultural agenda and provide accessible public spaces. These spaces can be utilized for hosting markets, events, and various socio-cultural and artistic activities, contributing to the city's cultural growth.⁴⁴⁷

The map illustrates all socio-cultural facilities within the GMM boundary, including archaeological sites, museums, youth centres, women and family centres, community centres, and NGOs excluding educational institutions. Notably, 39.5% of the population enjoys access to socio-cultural facilities within a 15-minute walking distance, while 59.1% have access within a 30-minute walking distance.

The data used here can provide valuable support to the municipality in reporting on the key indicator associated with UMF 55. This also facilitates stakeholders, policymakers, and residents in developing targeted solutions tailored to the distinct characteristics and needs of various areas within the city.



UMF 55



LEGEND

- GMM
- Main Road
- Railway
- Urban Footprint
- Youth Centers
- Museums
- Community Centers
- Women's and Families Centers
- Associations and Social Organizations

ACCESSIBILITY BY WALKING

- 15 minutes
- 30 minutes

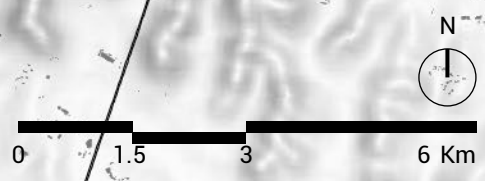


Fig. 37: Socio-Cultural Facilities in Mafrqa City

Local Economic Activity

As the Syrian war unfolded, Mafrāq experienced a population surge due to refugee influx, leading to significant international aid. This changed the city's conservative agricultural and trade economy with Iraq into a bustling hub needing expanded resources and services. The economic landscape shifted, causing rental prices to rise sharply and a construction boom that benefited landowners but burdened residents. The retail sector also grew substantially, with many new cafés and restaurants opening post-2011 to meet the increased demand.⁴⁴⁹ The influx of Syrian refugees to Mafrāq led to decreased job opportunities for Jordanians, higher unemployment, social tensions, and increased crime, as Syrians accepted lower-wage positions in agriculture and textile factories.⁴⁴⁹ What can primarily be observed in Mafrāq is a partial economic displacement of other foreign workers by Syrians.⁴⁵⁰ To foster economic development, the Jordanian government established the King Hussein Bin Talal Development Area (KHBTDA) and a local community facility with vocational training and business incubators, in collaboration with various development funds and organizations.⁴⁵¹

Major economic centres are divided into direct and indirect economic sectors, whereby commercial and industrial facilities that contribute directly to the area's economy are classified as direct economic sector, while facilities such as banks, educational, and medical centres are classified as indirect economic sectors.

Commercial Sector:

The commercial sector is considered one of the primary economic activities within GMM. The commercial activity is concentrated in the city center and along main roads.

Education Sector:

Al-Bayt University accounts for 21% of GMM landuse, and has influenced the economic and urban development of the Mafrāq. The university has 21,823 students and 310 faculty members.⁴⁵² The presence of Al-Bayt University makes Mafrāq a dynamic city and directly assists in job creation. In addition to the university, public and private schools, including kindergartens, cater to the entirety of the city's population, both host and refugee communities. These educational institutions provide GMM with a wide range of professions through the degrees they offer which attracts economic interactions.

Industry Sector:

The industrial sector is vital for Mafrāq's economy. It includes various service offerings within GMM, like car repairs, and major industrial zones like King Hussein Bin

Talal and Al Thuraya Industrial City lying beyond the GMM boundaries. Despite the success of these areas, the absence of a dedicated Chamber of Industry in Mafrāq Governorate results in factory licensing revenue going to the national fund, leaving Mafrāq City to handle the negative environmental impact.⁴⁵³

Agriculture Sector:

Mafrāq governorate is the second-largest agricultural producer after Jordan Valley, with agriculture being a key component of GMM's economic activities, encompassing areas within and outside municipal boundaries.⁴⁵⁴ According to a survey conducted by the IRC, substantially more of the refugees they spoke with in Mafrāq were willing to work in agriculture, when compared to Irbid and Amman. This partly results from individuals migrating to cities where there is demand for their skills.⁴⁵⁵ However, increasing urban encroachment on agricultural land and depleting ground table limit growth within the sector. Accordingly, GMM should focus on developing a strategic masterplan to limit encroachment on agricultural land, and ensure more sustainable sources are used to preserve the sectors status within the economy.

Tourism Sector:

As a city, Mafrāq has great potential to be a global tourist attraction, as it includes sites such as the Hijazi railway, Al-Fudain, Umm-Al Jimal and Rehab archaeological sites. However, the lack of a tourism development plan means that the sector does not reap its potential and faces many challenges, including; the lack of tourism investments, lack of proper infrastructure, illegal excavations and vandalism.⁴⁵⁶

Home-Based Businesses:

The International Development and Planning Unit, in line with the Jordan Response Plan, promotes social cohesion by serving local communities with a sustainable vision. One of its projects, funded by international bodies, focused on training refugees and locals in writing business proposals. GMM sees a growth of home-based businesses especially beneficial for women seeking employment. The municipality and Chamber of Commerce often exempt these businesses from licensing to encourage their expansion.⁴⁵⁷ Additionally, around 280 community-based organizations in GMM facilitate job opportunities by aiding locals in establishing small businesses.⁴⁵⁸

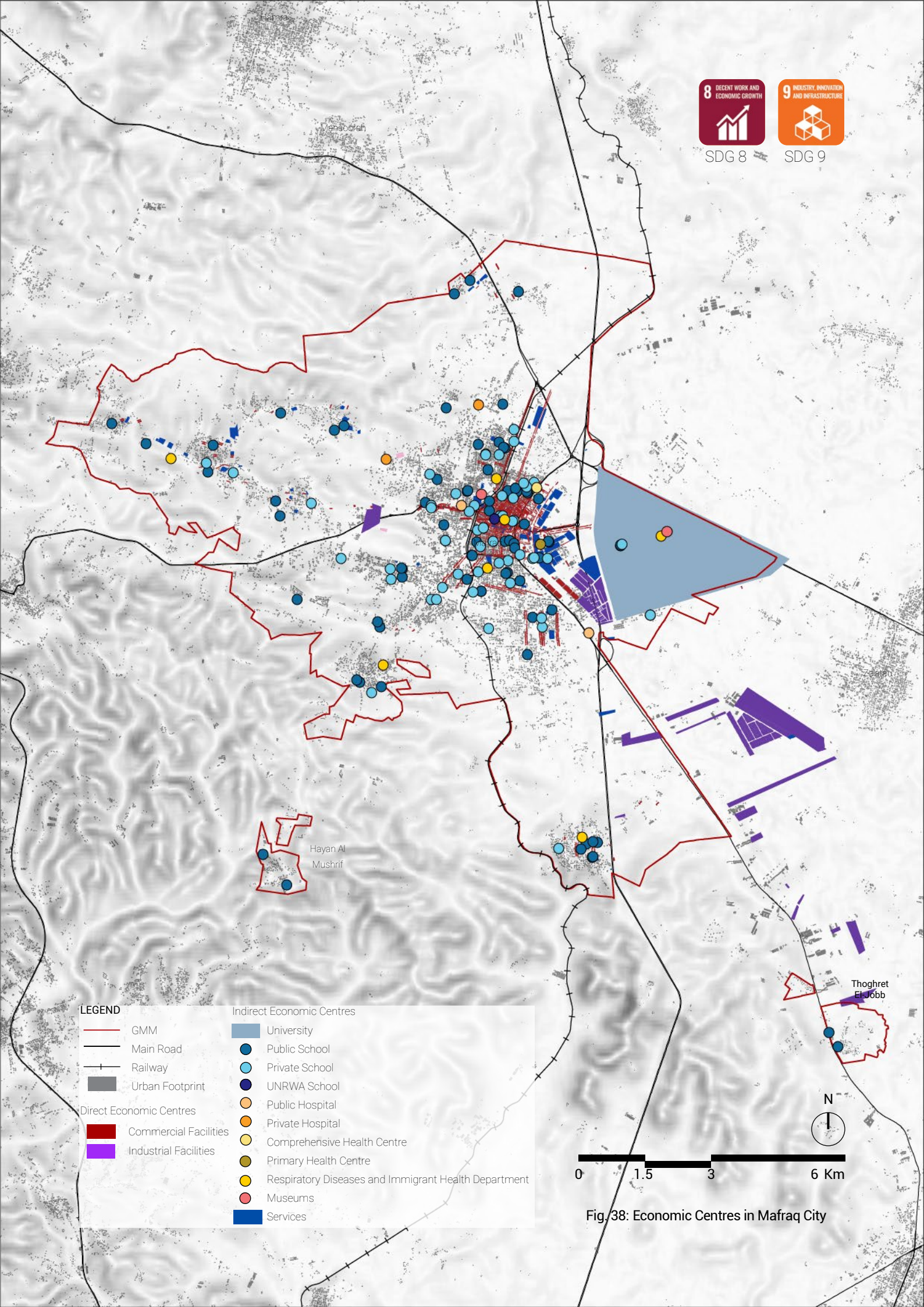
By providing a spatial understanding of where economic activities are concentrated, the map can aid in the planning of evidence-based strategies that align with the objectives of SDG 8 and SDG 9.



SDG 8



SDG 9



LEGEND

- GMM
- Main Road
- Railway
- Urban Footprint

Direct Economic Centres

- Commercial Facilities
- Industrial Facilities

Indirect Economic Centres

- University
- Public School
- Private School
- UNRWA School
- Public Hospital
- Private Hospital
- Comprehensive Health Centre
- Primary Health Centre
- Respiratory Diseases and Immigrant Health Department
- Museums
- Services

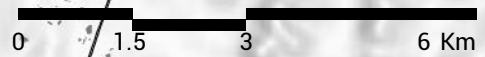


Fig. 38: Economic Centres in Mafraq City

Municipal Financial Assessment

This section outlines the findings of the comprehensive municipal financial assessment conducted for GMM. The assessment drew from various key sources, including the financial department of GMM, as well as publications from significant entities such as the Ministry of Local Administration (MOLA), Cities and Villages Development Bank (CVDB), Ministry of Planning and International Cooperation (MOPIC), and Ministry of Interior (MOI).

Similar to other municipalities in Jordan, GMM does not adhere to the International Financial Reporting Standards (IFRS). Consequently, the municipality does not produce standardized financial reports, such as income statements, balance sheets, and other common financial performance sheets. Instead, all Jordanian municipalities, including GMM, generate and publish only two financial reports titled "End of Year Accounts," which include: a concise report on revenue, expenses, and surplus (or deficit); and a one-page report detailing the year's cash inflow and outflow.

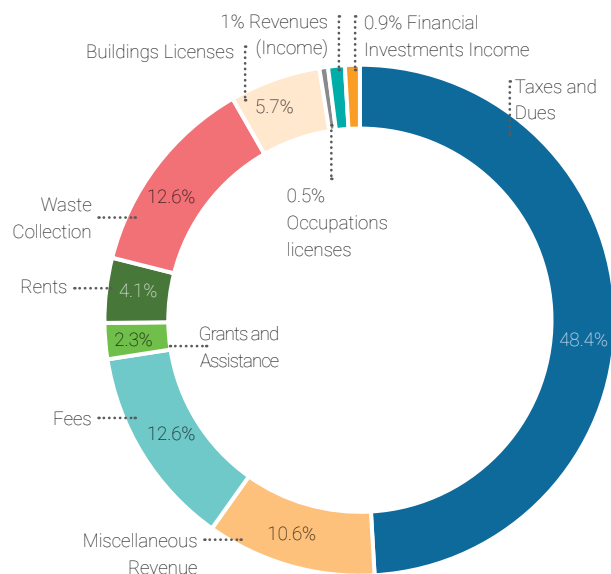
GMM Revenues and Expenses

Greater Mafraq Municipality revenue sources are divided into three main categories including Government Transfers (subsidies); GMM Self Revenue; and Grants and Assistances. Revenue is generated from taxes and fees, licensing fees, solid waste management, miscellaneous revenue income, financial investments, interest rates, rent, and grants. In 2022, 48% of the total municipal revenue generated by GMM came from taxes, followed by 12.6%

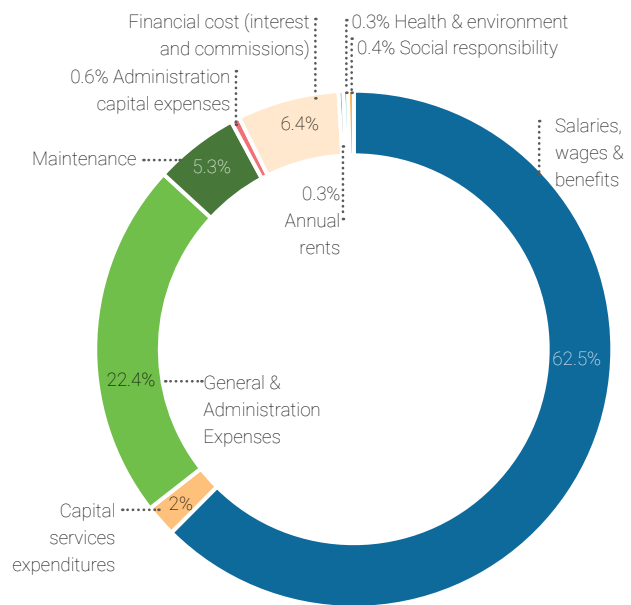
from waste collection and 12.5% from general fees, 10.6% from miscellaneous revenue, 5.6% from building licensing fees, and 4% from rents. Revenue from grants, income, and financial investments was very limited to around 2% of the total GMM actual revenue. Notably, taxes and fees have remained the primary revenue source for GMM from 2020 to 2022. Moreover, the revenue budget was overestimated by approximately 73.9%, 47.4%, and 36% in 2020, 2021, and 2022, respectively.

As for GMM expenses in year 2022, out of the total actual expenses, three types of expenses; including salaries & wages, general & administrative costs, and financial costs; accounted for approximately 91%. Within this, salaries and wages constituted 62.5% of the total expenses, which amounted to around 7.30 million JD. Maintenance expenses made up 5.3% of the total actual expenses, equating to approximately 0.4 million JD. While capital services expenditures comprise a mere 2% of the total actual expenses. On average, revenue was overestimated by approximately 30% from 2018 to 2023, on the other hand the total expenses, encompassing both current and capital expenditures, have been overestimated by approximately 32%. This points to a notable weakness in the municipality's revenue/expenses budgeting capacity.

It is important to note here that, on average, the capital services expenditures in GMM during the years 2020-2022 amounted to 16.5%, with maintenance expenditures



GMM Total Municipal Revenues for year 2022 (JD)
Source: GMM Annual Financial Closing Accounts 2022

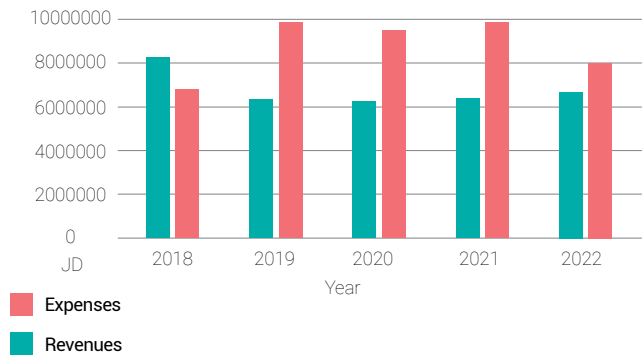


GMM Total Municipal Expenses for year 2022 (JD)
Source: GMM Annual Financial Closing Accounts 2022

accounting for 3.4% of the total actual expenditures. These figures underscore the financial limitations that GMM encounters when attempting to sufficiently finance the essential service projects within its own budgetary constraints.

GMM Surplus/Deficits

GMM experienced financial deficits annually throughout the considered period. The average annual deficit from 2019 to 2021 amounted to 3.33 million JD, whereas the deficit for 2022 decreased to approximately 1.32 million JD. The yearly average of actual expenses stood at 9.2 million JD during the period spanning from 2019 to 2022.



GMM Revenues and Expenses for the years 2018-2022 (JD)
Source: GMM Municipal Budget for the years 2018-2022, MoLA

Revenues	2020	2021	2022
Taxes and Dues	3,731,970	2,523,006	3,239,168
Miscellaneous Revenue	410,786	1,569,155	709,263
Buildings & Construction Licenses	370,432	137,094	838,921
Waste Collection	851,029	0	150,267
Dues and Fees	367,246	349,501	271,161
Rents	318,636	1,039,584	842,632
Revenues (income)	104,389	475,101	379,570
Grants and Assistance	0	61,506	36,219
Occupations Licenses	106,508	46,520	69,780
Financial Investments Income	0	0	62,027
Interest Income	0	0	0
Total Annual Municipal Gross Revenues	6,260,996	6,201,467	6,599,008
Total Budgeted Revenue	10,919,932	9,175,702	9,097,266
Expenditures	2020	2021	2022
Salaries, Wages, and Fringe Benefits	5,187,588	5,079,779	4,997,866
Capital Services Expenditures	2,298,487	2,304,728	158,869
General and Administration Expenses	1,495,764	1,728,886	1,791,413
Maintenance	237,767	252,814	424,493
Health and Environment	28,454	22,294	47,608
Annual Rents	50,492	380,771	509,795
Financial Cost (interests)	99,999	47,200	19,835
Social Responsibility	19,494	28,776	23,564
Financial Investments	78,739	15,279	28,388
Total Actual Expenses	9,496,784	9,860,527	8,001,831
Total Budgeted Expenses	12,295,365	12,922,092	12,814,570

Table 6: GMM 2022 Total Municipal Revenues and Expenses (JD)
Source: GMM Annual Financial Closing Accounts 2020, 2021, and 2022

GMM Debt Development

According to the reports by MOLA evaluating the performance of municipalities, an analysis was conducted on GMM’s debt development from 2016 to 2019, revealing that the GMM debt burden accounted for 14% of the total actual revenue in 2019.

GMM’s annual interest payments witnessed a substantial increase over the period from 2018 and 2022, as shown in the figure below, varying from as low as 28,000 JD in 2018 to a significant high of 0.5 million JD in 2022. This trend indicates a considerable level of borrowing (debt) and, potentially, delayed repayment of scheduled loan installments. Furthermore, interest payments constituted about 6.4% of GMM’s total annual expenses, a significant escalation in comparison to the 0.41% figure recorded in 2018.

GMM’s inability to significantly reduce debt and the recent annual deficits cannot be explained without taking into consideration the burden of refugees and providing services for the Mafrag city.⁴⁵⁹

Assessment of GMM Borrowing Capacity

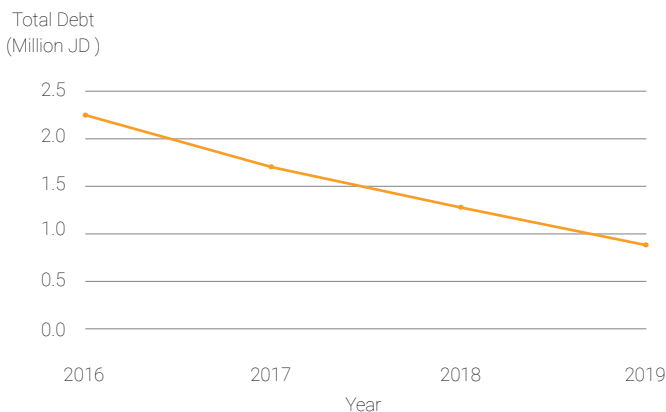
Based on historical financial analysis and future projections, it is evident that GMM has not had a strong financial position. This situation does not enable them to meet their short-term, medium-term, or long-term borrowing obligations.

GMM relies on a limited range of income sources, despite being mandated to diversify revenue sources as per

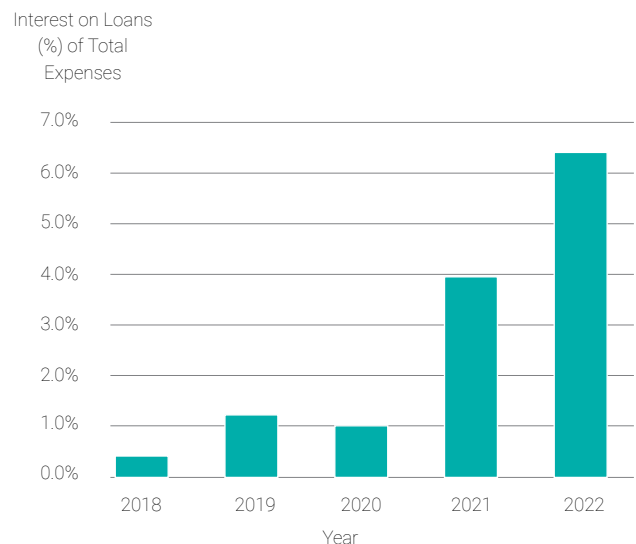
laws and regulations. Most of these income sources are directly linked to factors such as population growth, economic development, and the expansion of various activities and sectors, including tourism, wholesale and retail trade, and industry. Despite these considerations, GMM’s actual revenue decreased from 8.2 million JD in 2018 to just 6.2 million JD in 2020, even though the area’s population exhibited an average growth rate of 2.2% during this period. In 2022, GMM’s revenue amounted to 6.6 million JD.

GMM encountered yearly financial deficits, calculated as the variance between total annual revenue and total annual expenses. The annual financial deficit fluctuated, reaching -3.5 million JD in 2019 and -1.3 million JD in 2022, with a persistent trend of deficit occurrences throughout the 2019-2022 period. Accordingly, the annual deficit of GMM is financed through borrowing, either from CVDB, commercial loans, or both.

In conclusion, given its current financial standing, GMM lacks the capacity to independently execute the essential service projects, either through its own revenue or additional loans. The viable path forward is reliant on international financial assistance, which can take the form of grants or the direct provision of technical and financial support to facilitate needed projects’ implementation.



GMM Total Debt for the years 2016-2019 (Million JD)
Source: Financial Report for Municipalities for the Year 2019, MoLA⁴⁶⁰



Percentage of Total Expenses Spent on Interest Payments by GMM
Source: GMM audited annual financial accounts (2018-2022)

GMM Strategic Plan (2020-2025)

Within the strategic plan of GMM, the main sectors of focus for GMM encompass the tourist sector, real estate development, public services, economic and social support, environment, and the agriculture sector. These sectors represent critical areas of interest for the municipality, each playing a significant role in the overall development and well-being of the region.

The strategic plan entails a total of 25 projects distributed across the aforementioned sectors and sub-sectors. The overall estimated capital investment cost for these initiatives is 5.0 million, equivalent to an average of 200,000 JD per year. It is noteworthy that the precise costs for some of the projects outlined in the GMM strategic plan are still undergoing evaluation.

The general framework for financing capital investment projects in GMM, particularly focusing on capital services projects, involves two main sources of funding, namely internal and external sources. The external sources consist of foreign entities and include capital grants awarded by organizations such as USAID and other donors, as well as GMM's share in government transfers. On the other hand, internal sources include revenue generated from GMM's own activities, and

loans. Other sources encompass government and non-government deposits, including social security and tax deductions, along with interest-free government loans.

Despite the diversification of cash flow sources, their overall availability remains limited, a trend evident from the historical analysis of revenue and expenses, which has resulted in continuous deficits.

It is highly advisable to actively promote and incentivize the development of projects through Public-Private Partnership (PPP) formats. These PPP concessions, once granted by GMM, would not only provide the necessary funds for implementing key projects but also allow for surplus funding to be allocated toward financing smaller-scale strategic economic development initiatives. Additionally, the concession agreements would result in an added annual income for GMM through the acquisition of concession fees (royalties) from each concession.

Priority Projects	Estimated Cost (JD)
Design & construction of Storm water drainage network for Al Sukhni Street	550,000
Waste paper recycling plant	200,000
Occupational training facility	80,000
Production kitchen for preparation of food meals for government and private schools' students	-
Rain harvesting project	500,000
Multi-functional sport hall	125,000
Street lighting by LED electricity saving system	240,000
Solar tank for residential sector	183,500
Facility for storing, packaging and cooling of agricultural produces for export	50,000
Total	1,928,500

Table 7: GMM Priority Projects and their Estimated Costs

Source: GMM Strategic Plan 2020-2025

Mafraq City Performance

This section employs the UN-Habitat's [MY Neighborhood Guidelines](#)⁴⁶¹ to assess the city's performance for its residents. These analyses are structured around five key objectives, guaranteeing that each indicator employed has a direct connection with the SDGs and the UMF. The five objectives include Compactness, Connectedness, Inclusiveness, Vibrancy, and Resilience. However, due to the lack of data necessary for evaluating the inclusivity and resilience objectives in Mafraq City, the assessment was limited to examining Compactness, Connectedness, and Vibrancy.

How Compact is Mafraq City?

Compactness in urban areas involves dense populations with convenient access to essential infrastructure like water, sewerage, and electricity, as well as public amenities within a 15-minute walk. Mafraq City's compactness was evaluated using GIS, examining accessibility to infrastructure and public facilities, public transport proximity, and the efficiency of water and sewerage services through a demand versus capacity analysis. The electricity network was excluded due to external dependencies. A comprehensive scoring system assessed each variable's impact on overall compactness.

- **Population Density Levels**

Dense areas play a crucial role in urban planning. A score ranging from 1 to 4 was assigned based on the level of population density in the area within the city.

- **Access to Sewerage and Water, and Electricity Networks**

Scoring for Access to Sewerage, Water, and Electricity Networks was determined by evaluating the presence of connections to each respective infrastructure.

- **15 Minutes' Walkability Access to Public Transport Routes and Stops**

Areas were scored based on their proximity to public transport routes and stops within a 15-minute walking distance.

- **15 Minutes' Walkability Access to Health Centres, Schools, Parks, and Commercial Landuse**

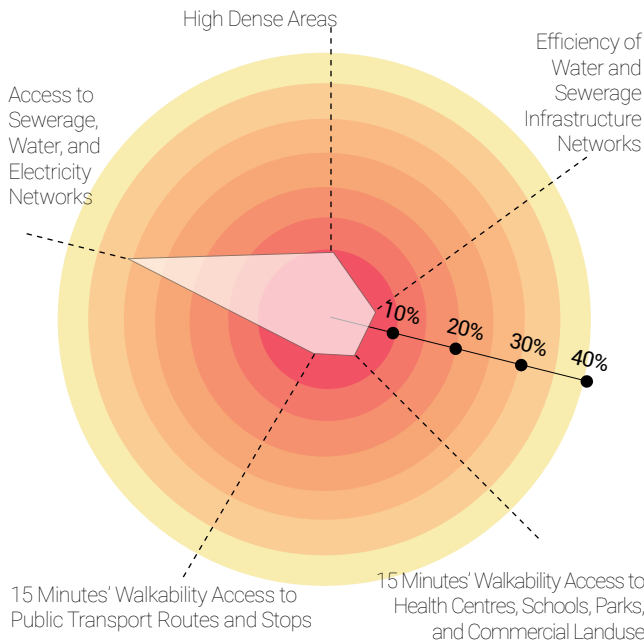
Scores are assigned to areas based on their proximity to health centres, schools, parks, and commercial landuse within a 15-minute walking distance, considering each facility individually.

- **Efficiency of Water and Sewerage Infrastructure Networks**

The evaluation of the service efficiency provided by the Water and Sewerage Infrastructure Networks was conducted through a capacity versus demand analysis. In this analysis, areas with high demand were assigned a score of 0, while areas with low demand received a score of 4.

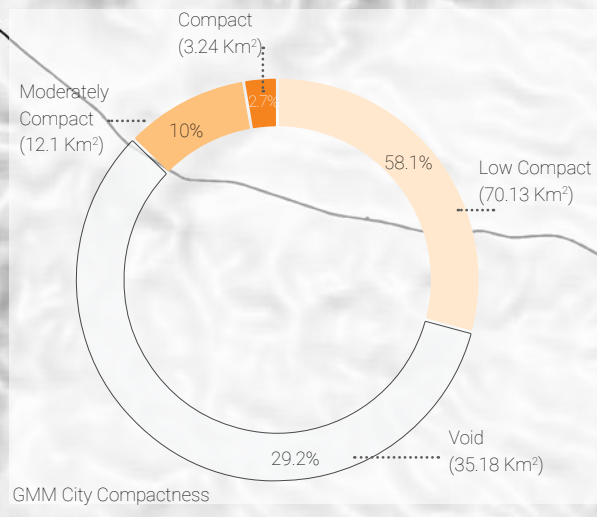
As a result, around 3.24 km² (2.7%) of the GMM area is considered compact, accommodating 16.4% of the city's

total population. This assessment provides an indication of how efficiently and effectively the land is being used in the city and pinpoints areas where the improvement of public facilities and infrastructure networks, as well as their proximity, can be enhanced to foster the development of a more compact city. The figure below illustrates the interaction of various factors in visualizing the Mafraq City's compactness, specifically in the areas identified as having low compactness. This helps determine which aspects should be considered when planning interventions and efforts to enhance compactness.



Interaction among key factors influencing urban compactness in low-compact areas

The data used to measure compactness can provide valuable support to the municipality in reporting on key indicators associated with UMF 09, UMF 10, UMF 44, SDG 1.4.1, SDG 11.2.1, and SDG 11.7.1 This also facilitates stakeholders, policymakers, and residents in developing targeted solutions tailored to the distinct characteristics and needs of various areas within the city.

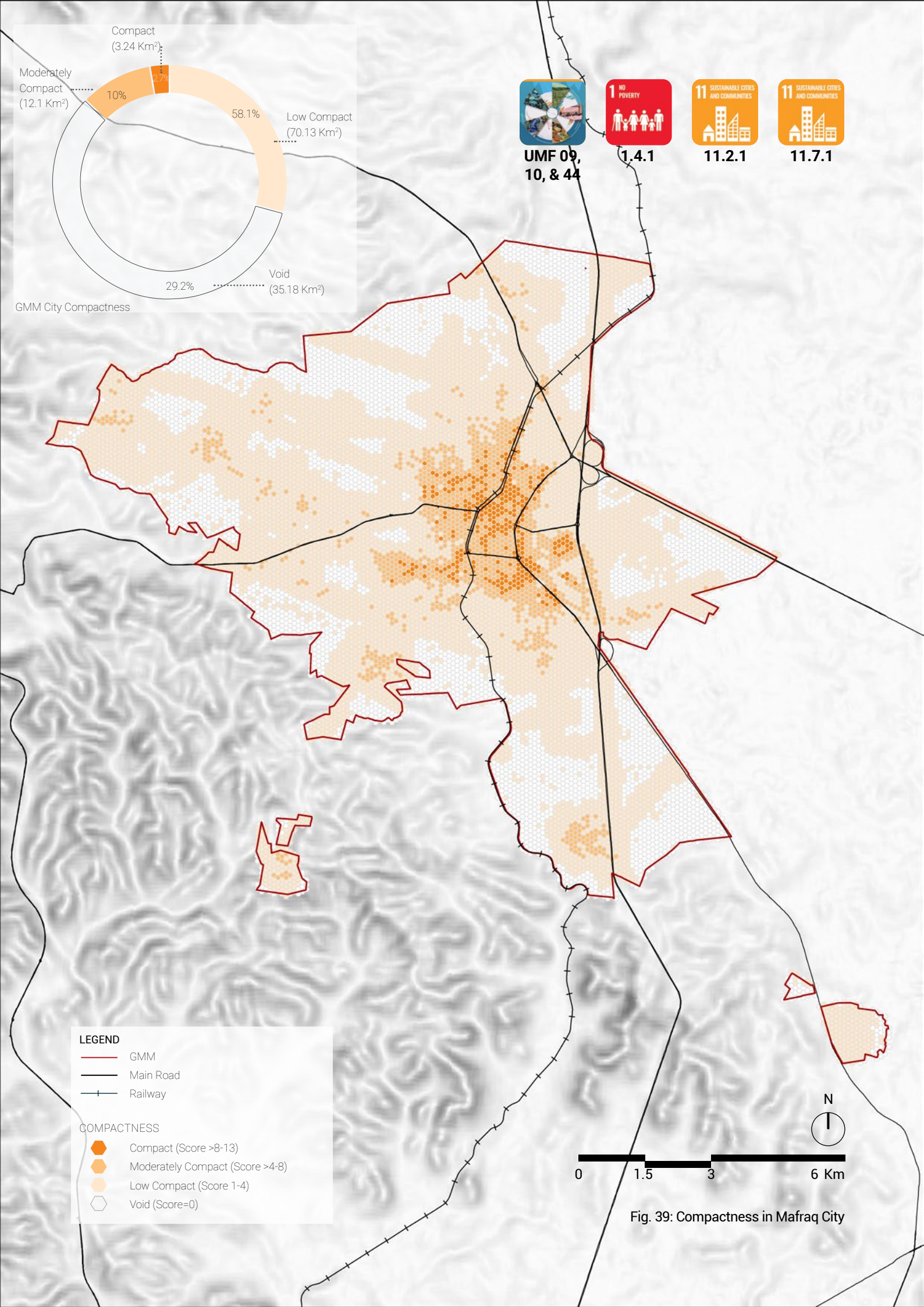


UMF 09, 10, & 44

1.4.1

11.2.1

11.7.1



LEGEND

- GMM
- Main Road
- Railway

COMPACTNESS

- Compact (Score >8-13)
- Moderately Compact (Score >4-8)
- Low Compact (Score 1-4)
- Void (Score=0)

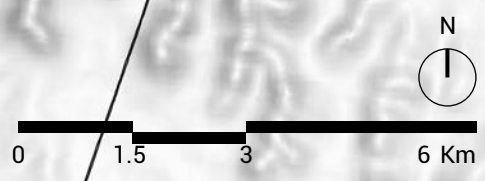


Fig. 39: Compactness in Mafraga City

How Connected is Mafraq City?

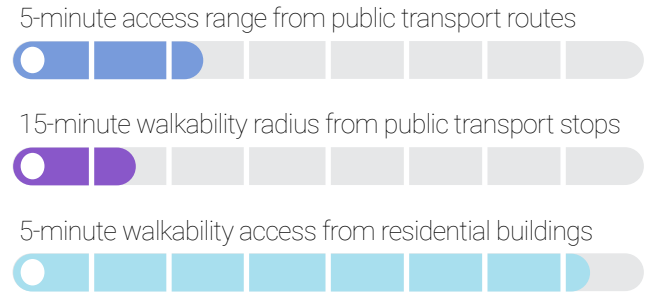
Connectedness in a city is measured by considering the extent and efficiency of the transportation and communication networks that link various parts of the urban area. This includes the presence of well-planned roads, highways, bridges, and road junctions that facilitate the smooth movement of people and goods within and outside the city. In the case of Mafraq, due to the lack of available and sufficient data on digital infrastructure, the analysis will focus on evaluating the physical street network hierarchy and road junctions. The analysis aims to assess the 5-minute walkability access from residential buildings to road junctions or the potential for transitioning to a different type of street. Furthermore, this analysis also considered a 15-minute walkability radius from public transport stops and a 5-minute access range from public transport routes.

Accordingly, a four-tier scoring system was developed with the following categorisation:

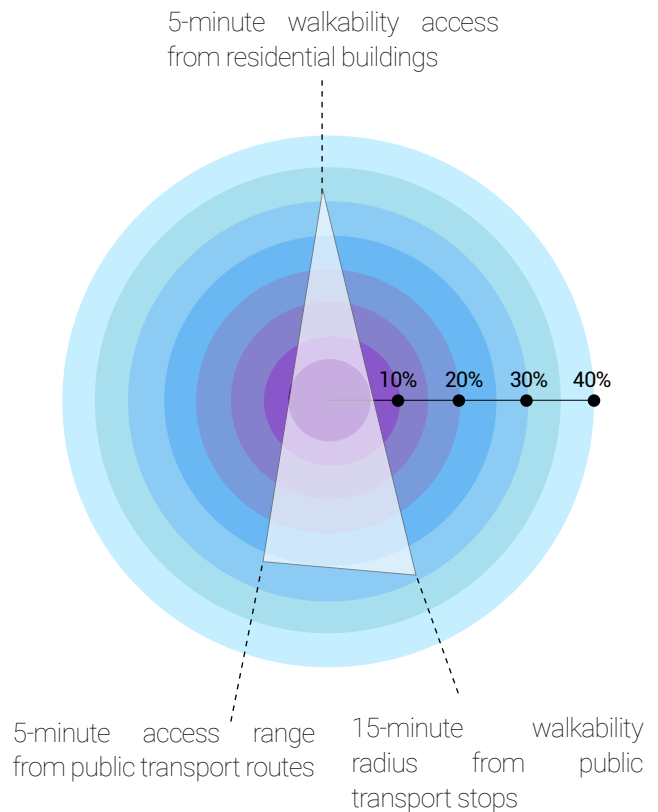
- **High Connectivity:**
A score of 3 was assigned to areas with connectivity to a street junction, a potential transition point to a different street type, and access to a public transport stop and route within the specified walking distances.
- **Moderate Connectivity:**
Indicates a moderate level of connectivity, falling below the criteria for high connectivity but still demonstrating certain connections to street junctions, transition points, or public transport with a score of 2.
- **Low Connectivity:**
A score of 1 was assigned to areas showing limited connectivity, suggesting lower access to street junctions, transition points, or public transport.
- **Not Connected:**
A score of 0 was assigned to areas lacking connectivity to a street junction, a potential transition point, or a public transport stop and route, indicating no connections within the specified walking distances.

As a result, 4.6% of the city's area is identified as well-connected, benefiting only 13.5% of the population with access to vital points such as street junctions, potential transition areas, as well as public transport stops and routes. The majority of the city 51.8% falls under the "not connected" category, with 60.5% of the population residing in areas characterized by low connectivity. The figure below illustrates the interaction of various factors in creating connectivity within Mafraq city, specifically in the areas identified as having low

connectivity. This helps determine which aspects should be considered when planning interventions and efforts to enhance connectivity.

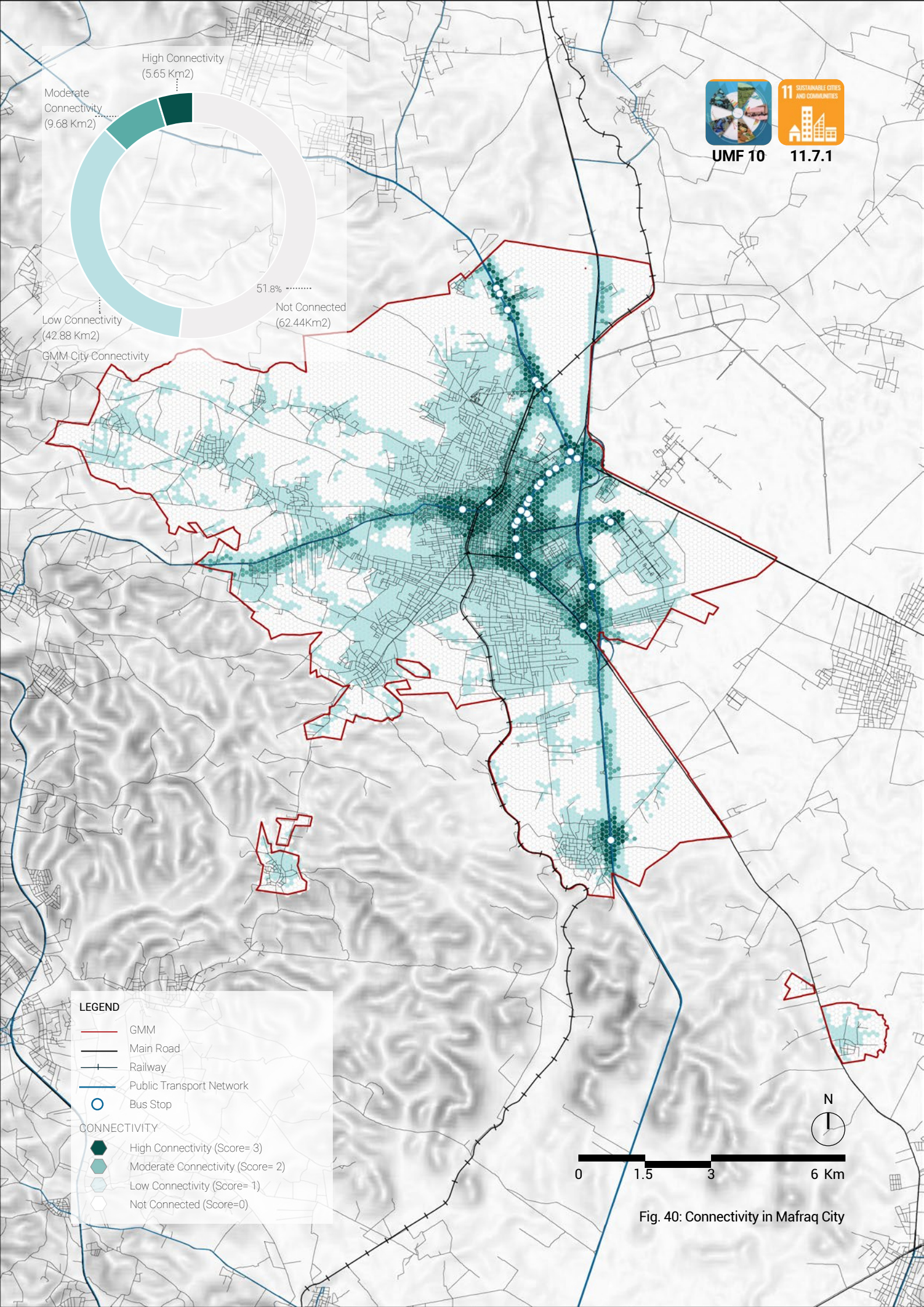


Area Percentage of key factors influencing urban connectivity in low-connectivity areas



Interaction among key factors influencing urban connectedness in low-connected areas

The data used to measure the city's connectedness can provide valuable support to the municipality in reporting on key indicators associated with UMF 10 and SDG 11.7.1. This also facilitates stakeholders, policymakers, and residents in developing targeted solutions tailored to the distinct characteristics and needs of various areas within the city.



How Vibrant is Mafrq City?

The vibrancy of a city is determined by its energetic and lively ambiance, which mirrors its cultural, social, and economic vitality. It encompasses a range of elements, including cultural and touristic diversity, vibrant economic activities, engaging entertainment options, and the presence of accessible public spaces. In the case of Mafrq, the assessment of vibrancy takes into account the aggregation of vibrant activities within the city. This includes the spatial analysis of commercial and mixed land uses, public parks, mosques, tourist areas, and their connectivity with residential buildings and the street network. Leveraging available data, the assessment aims to measure the vibrancy by evaluating the interplay of diverse activities and their impact on pedestrian movement. By taking this holistic approach, the assessment seeks to capture the dynamic and lively aspects of Mafrq's urban environment, providing valuable insights into the city's overall vibrancy.

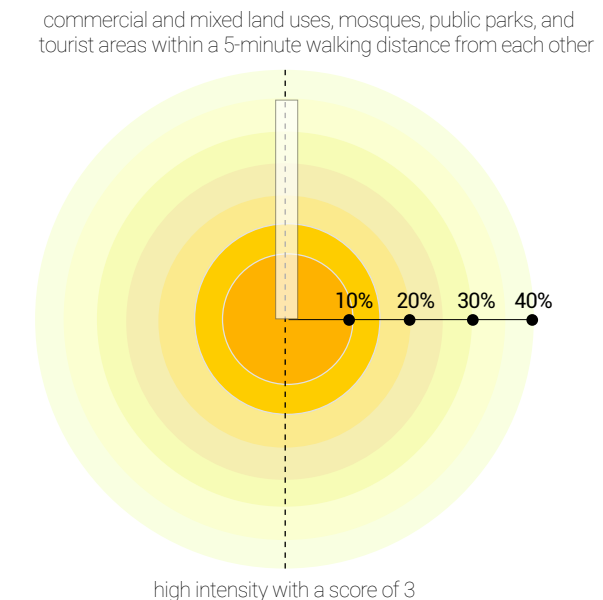
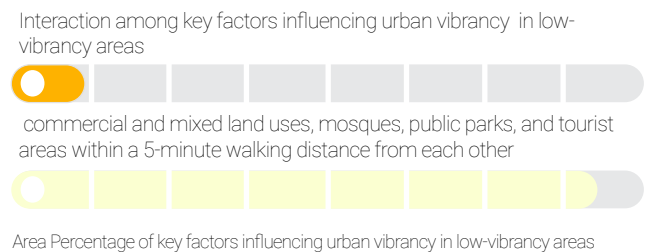
Accordingly, the vibrancy scoring system was developed, taking into account the aforementioned key aspects. The scoring is classified as follows:

- Concentration and Diversity of Public Facilities:**
 This includes commercial and mixed land uses, mosques, public parks, and tourist areas within a 5-minute walking distance from each other. The scoring ranges from the highest score of 5 to the lowest score of 1, reflecting the concentration and diversity of these facilities.
- Street Network Intensity:**
 The intensity of the street network is assessed, where areas with high intensity are assigned a score of 3, signifying a greater likelihood of serving pedestrians, while low-intensity areas are assigned a score of 1.

As shown in the map, vibrant areas within the city comprise 4.7% of the total city's area, hosting an equivalent 24.2% of the population. Moderately vibrant areas cover 7% of the city's total area, accommodating 21.1% of the population. Areas classified as low vibrancy constitute 31.2% of the city's landscape, with a corresponding 40.6% of the population residing in these regions. Finally, areas with no vibrancy cover 57.1% of the total city area and host 14% of the population, signifying regions with lower activity levels. This underscores that a significant portion of GMM is situated within areas classified as having low to no vibrancy. This analysis aims to identify the effectiveness of population movement both between areas and between diverse activities. It highlights zones with existing high pedestrian flows, suggesting potential benefits from the development of economic land uses. Furthermore, the analysis can pinpoint opportunities in areas characterized by a diverse

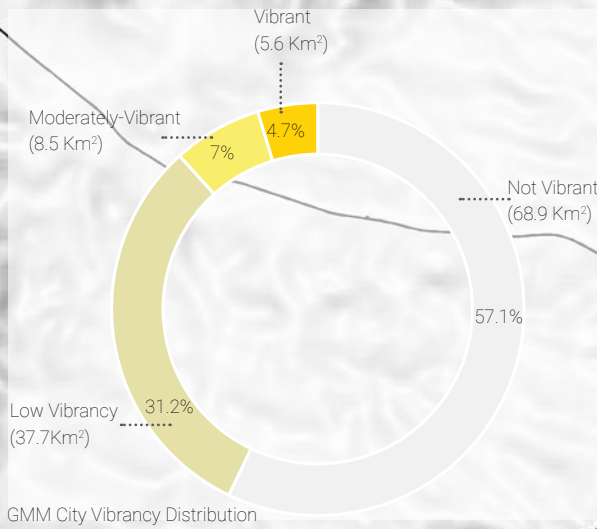
mix of activities and significant pedestrian movement, indicating potential for enhanced pedestrian environments and increased vibrancy.

The figure below illustrates the interaction of various factors in creating the vibrancy within Mafrq city, specifically in the areas identified as having low vibrancy. This helps determine which aspects should be considered when planning interventions and efforts to enhance vibrancy.



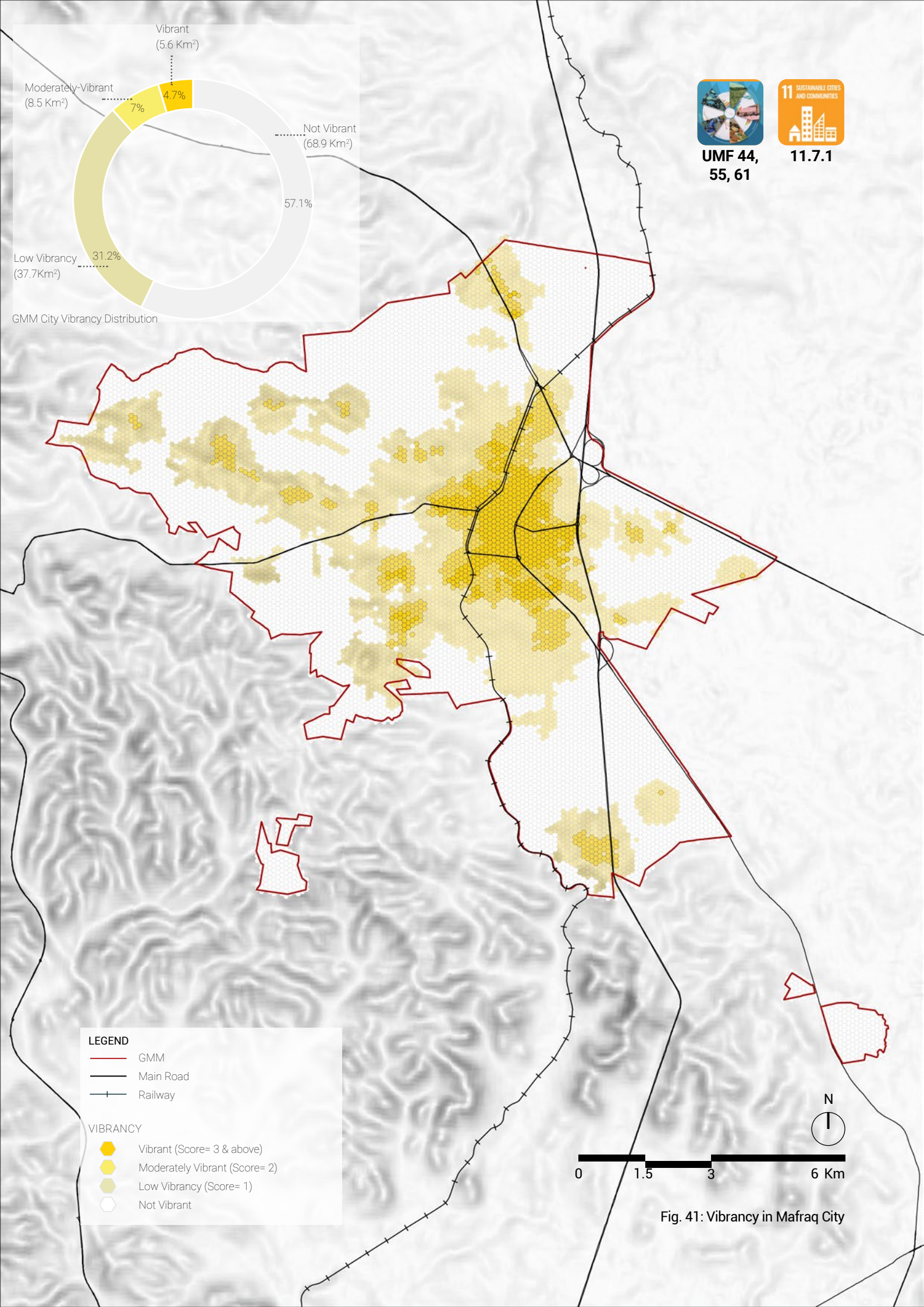
Interaction among key factors influencing urban vibrancy in low-vibrancy areas

The data used to measure the city's vibrancy can provide valuable support to the municipality in reporting on key indicators associated with UMF 44, UMF 55, UMF 61, and SDG 11.7.1. This also facilitates stakeholders, policymakers, and residents in developing targeted solutions tailored to the distinct characteristics and needs of various areas within the city.



**UMF 44,
55, 61**

11.7.1



LEGEND

- GMM
- Main Road
- +— Railway

VIBRANCY

- Vibrant (Score= 3 & above)
- Moderately Vibrant (Score= 2)
- Low Vibrancy (Score= 1)
- Not Vibrant

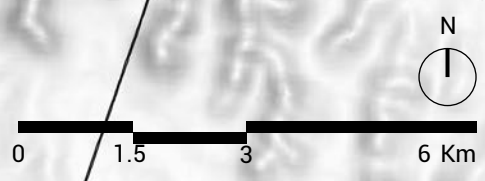


Fig. 41: Vibrancy in Mafrag City

Selection of Pilot Neighbourhood

Utilizing the latest available data, a vulnerability assessment was conducted for the GMM by synthesizing various factors that collectively influence the quality of life, as shown in the map. This assessment involved the application of a criteria and scoring system to create a comprehensive understanding of the levels of vulnerability within different areas of the city. The key criteria considered are outlined below:

- **Refugee Presence-Refugee Population Density:** Emphasis was placed on the concentration of refugees in the area, with Syrians constituting the highest percentage in GMM population, primarily concentrated in the central region. This criterion held the highest weight, assigning a score of 5 to the area with the most refugee presence, aligning with the UPMC programme's focus on refugees.
- **Building Density:** The most dense area is assigned a score of 5.
- **Access to Public Facilities:** Assigning the highest score to areas lacking access to all facilities within a 5-minute walking distance at the neighbourhood level. The scoring range is from 0 to 5.
- **Access to Public Infrastructure Network (including water, sewerage, and electricity networks):** The highest score was assigned to areas with no access to all three networks. The scoring range is from 0 to 3.
- **Efficiency of Infrastructure Network (specifically Water and Sewerage networks):** Considering the effectiveness of water and sewerage infrastructure networks through capacity versus demand analysis, whereby areas with high demand are assigned a score of 4, while areas with low demand receive a score of 0.
- **Access to Public Transportation (including Bus Stops and Routes) within a 5-minute walking distance:** A score of 1 is assigned if the access is within 5 minutes, while a score of 2 is given for access taking more than 5 minutes.
- **Proximity to the Wadi Mafraq:** This considers the proximity to Wadi Mafraq and its 50-meter buffer zone. A score of 5 is assigned within the buffer zone.

Overlaying these layers revealed vulnerability levels within GMM, categorized into three groups: high vulnerability areas with a score exceeding 15, moderate

vulnerability areas with a score ranging from 5 to 15, and low vulnerability areas with a score of less than 5. This classification offers valuable insights for targeted interventions and planning initiatives within the municipality.

Based on the vulnerability assessment, the central area, Thogret El-Jobb, and Um Enna'm Shargiyyeh within GMM are identified as the most vulnerable areas. However, Al Hussein Neighbourhood specifically stood out as the most vulnerable due to the intersection of two Wadi streams within the neighbourhood, particularly impacting Al-Hussein by floods. This conclusion aligns seamlessly with the consensus reached among stakeholders during the introductory workshop, reinforcing the recognition that Al Hussein Neighbourhood is particularly exposed to vulnerabilities.

Accordingly, the Al Hussein Neighbourhood has been designated as the pilot area for the upcoming project component, where further in-depth analysis will be conducted to address and mitigate the identified vulnerabilities.

Building upon this profile's earlier assessment of the city's performance, the Al-Hussein Neighbourhood exhibits a moderate to low level of connectivity while demonstrating a moderate level of compactness. However, this analysis overlooks the qualitative dimension, relying solely on spatial analysis. To comprehensively address the qualitative aspects as well as to further understand the challenges, needs, and opportunities of the Al-Hussein Neighbourhood, the programme's next component will follow a highly participatory approach, which will include conducting vision formulation and validation workshops with the local community and key stakeholders.

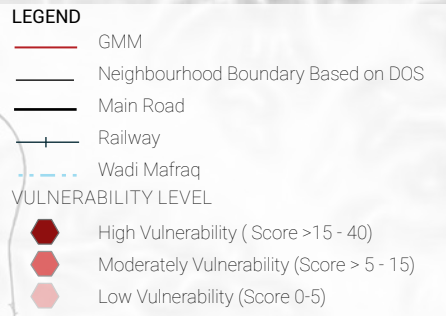
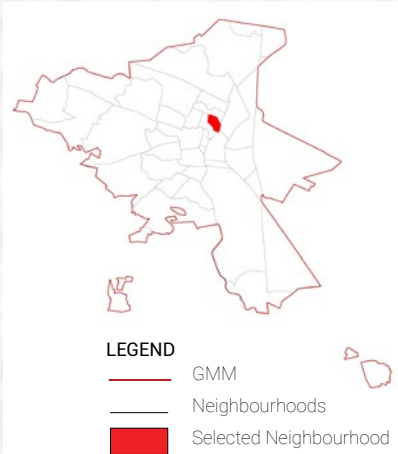
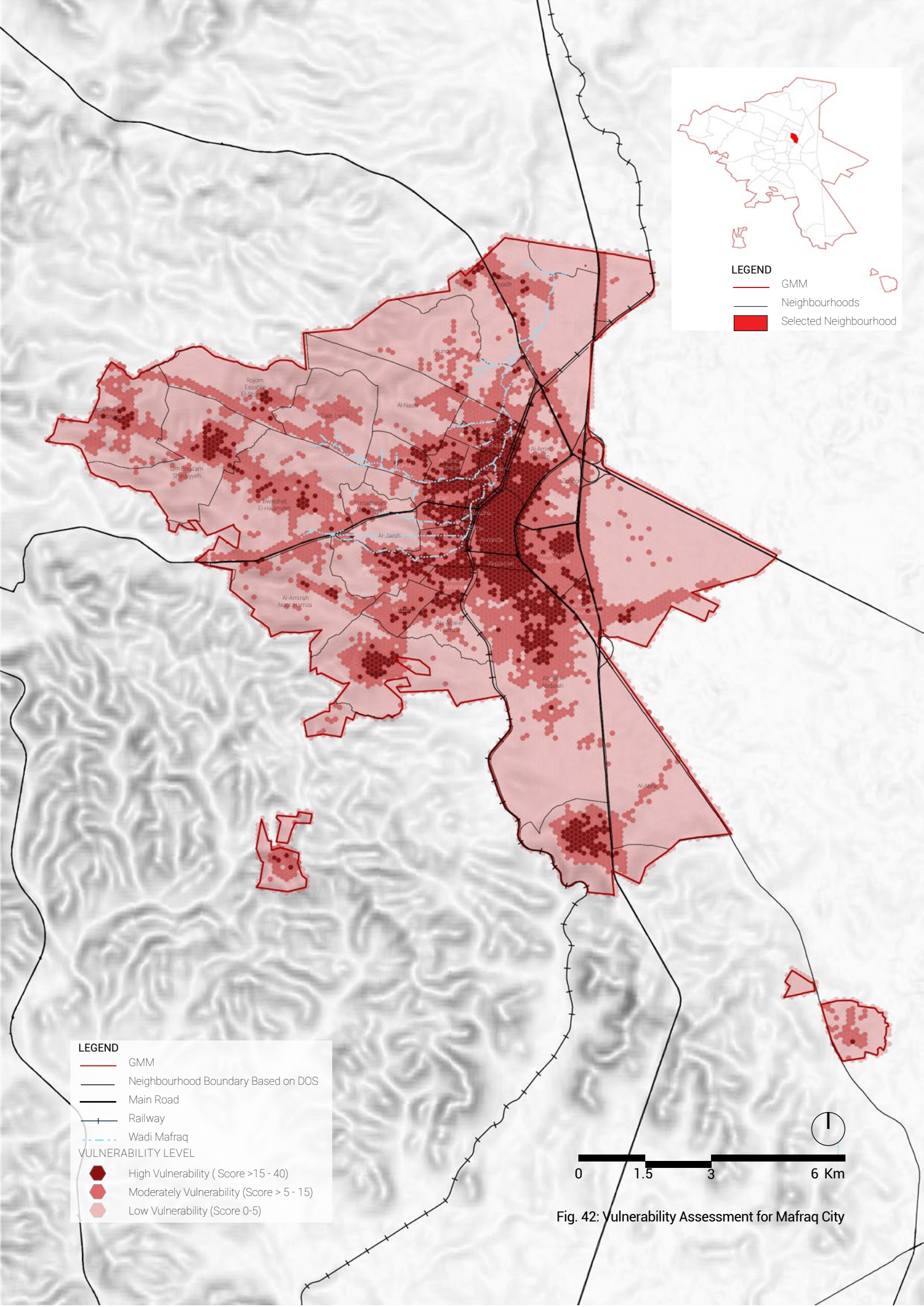


Fig. 42: Vulnerability Assessment for Mafrq City





04

STAKEHOLDERS ENGAGEMENT

Stakeholder Validation Workshop

On the 5th of February 2023, the UN-Habitat Jordan team held an in-person collaborative validation workshop for Mafrq Spatial Profile. Participants included representatives from relevant ministries and governmental entities, partners from Greater Mafrq Municipality, private sector, development agencies, and urban professionals.

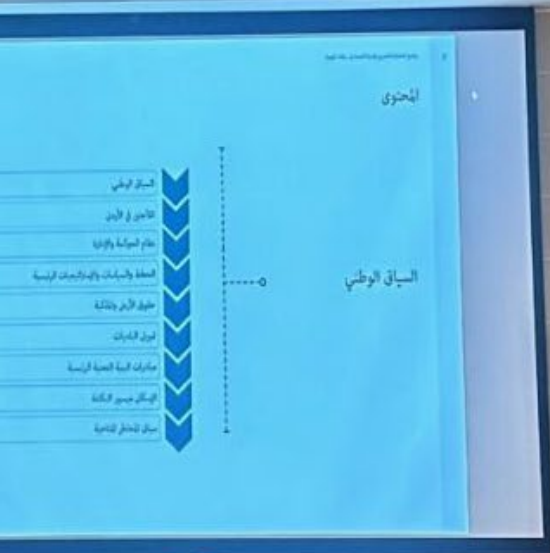
The workshop intended to inform stakeholders about the work progress throughout the UPIMC Programme, provide an overview of the draft spatial profile, present the urban development situation, as well as, the challenges and opportunities identified in relation to the influx of refugees and infrastructure investment and implementation within the city of Mafrq. With an aim of obtaining stakeholder perspectives on all that was presented, in addition to sharing ideas and recommendations to validate the findings of the spatial profile at the national, regional, and city levels. Finally, to select a pilot neighbourhood for the second stage of the project, which includes developing the strategic vision and building scenarios.

To ensure a comprehensive approach, during the first session, the UN-Habitat team presented an overview to inform key stakeholders about the UPIMC Programme process, objectives, and intended deliverables of the upcoming stage. Followed by a presentation on the national and regional levels of the spatial profile, highlighting key findings, followed by an interactive exercise to validate them.

The second session entailed an in-depth presentation of Mafrq Spatial Profile at city level, followed by an interactive exercise to validate the findings and open discussion for feedback and further investigation.

The third and final session included an interactive session, where the UN-Habitat team presented the potential pilot neighbourhood based on the vulnerability assessment conducted, followed by a discussion and voting exercise to verify the pilot neighbourhood selection as Al-Hussein Neighbourhood.





Stakeholder Feedback and Neighbourhood Selection

STAKEHOLDER FEEDBACK

Below is a summary of stakeholder feedback throughout the workshop in regards to what was presented of the spatial profile:

Mapping and Neighbourhood Names

GMM informed us of the need to update the name of Um El Lulu Neighbourhood to Hayan El-Mushref.

Public Water Service

The need to clarify the definition of non-revenue water which differs between MoWI and Yarmouk Water Company.

Educational Facilities:

There has been an update to some statistics in regards educational facilities.

Quality of Recreational Facilities:

The city lacks green public spaces. Additionally, stakeholders mentioned the absence of maintenance for the existing ones.

Following the workshop, bilateral follow-ups were conducted with the relevant entities to incorporate the feedback received and update the spatial profile accordingly. Relevant adjustments have been made to the spatial profile wherever necessary.

NEIGHBOURHOOD SELECTION

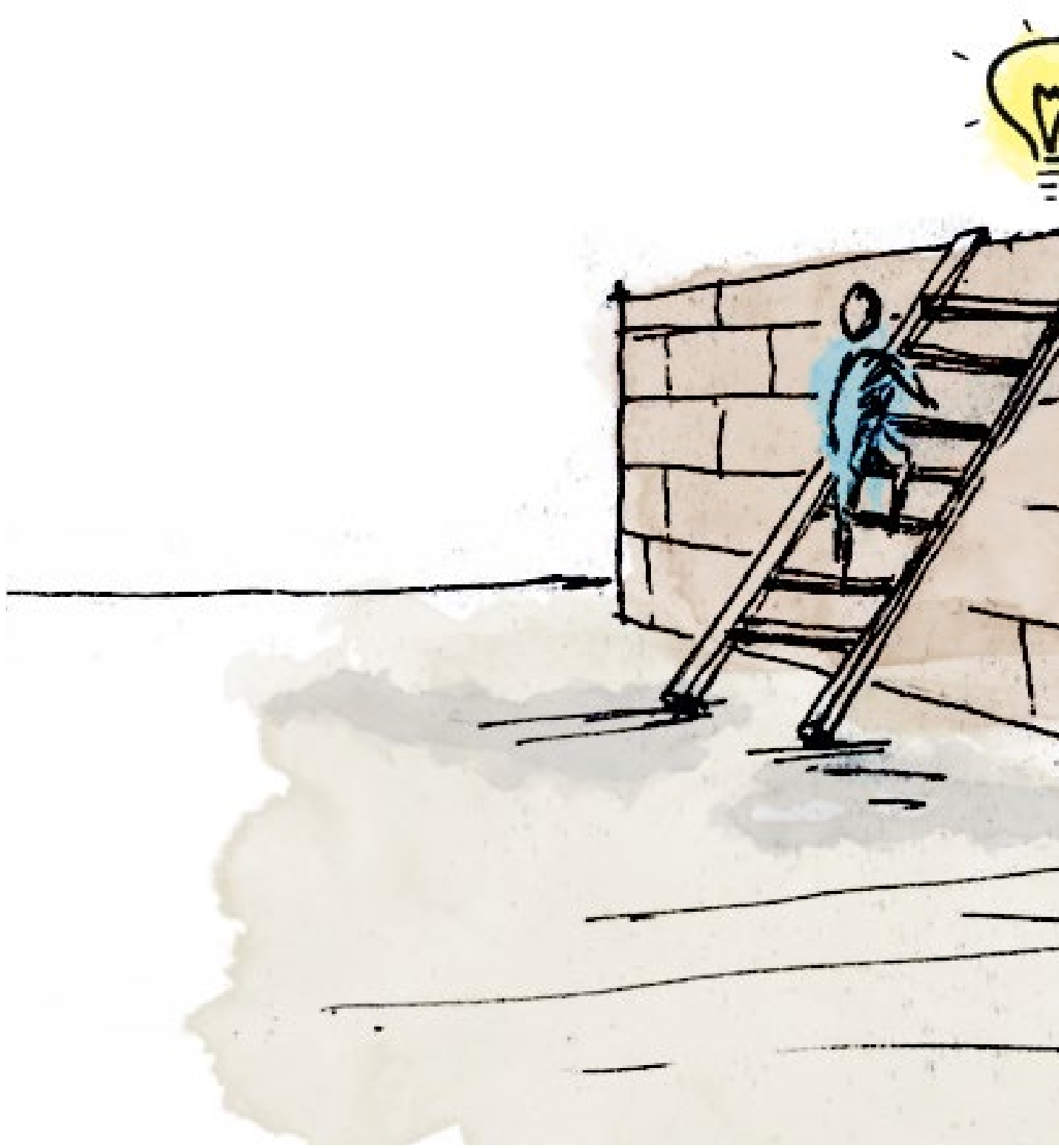
The following section summarises the results of the voting exercise that was held after the selection criteria for the pilot neighbourhood. Out of the 17 participants that voted, 16 voted for the selection of Al-Hussein.

The GMM team also highlighted Al-Hussein neighbourhood as one of the most vulnerable and affected by the influx of refugees, with the highest need for future improvement interventions.

Therefore, the selected neighbourhood for the upcoming stage (Develop Strategic Vision, Area Planning, and Action Plan) is "Al Hussein Neighbourhood.









05

CONCLUSIONS & RECOMMENDATIONS

Challenges

STRATEGIC CHALLENGES



Unequal Urbanisation

- Coupled with the refugee crises, urban sprawl has increased the demand on services, exacerbating the pressure on the already-limited municipal capacities and affecting the quality-of-service provision.
- Weak urban planning practices amidst rapid urbanisation has led to the inadequate distribution and access to basic services and public facilities.
- Mafrq Governorate has a population of 651,100, with a large percentage concentrated either in Mafrq City or Za'atari - the largest Syrian refugee camp. With migration displacement and camp settlements, there are major spatial inequalities in growth patterns, revenue distribution, and the development index.

Demographic Profile

- Jordan has welcomed several influxes of refugees, with the second highest percentage of refugees per capita of 89 refugees per 1,000 inhabitants.
- Jordan has a young population profile, with 63% of its population under 30 - while in Mafrq 40.9% of the population are under the age of 15. This poses a challenge in providing sufficient education facilities and employment opportunities to accommodate the growing youth population.
- Mafrq Governorate has the largest geographic concentration of Vulnerable Out-of-Reach Communities.
- Population of Mafrq doubled in size following the influx of Syrian refugees.
- The average household size in Mafrq Governorate is 5.2 individuals, higher than the national average of 4.8, resulting in overcrowding and a lower quality of life.

Climate Change

- Jordan ranked 74 out of 185 in the ND-GAIN index for climate vulnerability. It suffers from increasing temperatures, erratic rainfall, declining available water, and increasing heat waves, flash floods, droughts, and landslides.
- At the national level, transport and industrial energy activities are responsible for 74% of GHG emissions, while the waste management sector emitted

approximately 13% and industry 8%, posing an environmental challenge.

- The impact of climate change and extreme weather conditions, such as flash floods, droughts, and high temperatures, have further driven people into urban areas.
- Syrians in Jordan are specifically vulnerable to climate-induced water challenges - especially prominent in Mafrq which is located within the dry region of Jordan.

SPATIAL CHALLENGES



Urban Sprawl and Population Density

- Jordan is experiencing rapid urban growth, with an annual population growth of 2.3% (2019) and population density of 127.3 persons/km². The total built-up area has doubled between 2004-2015, reaching 1,500 km². The spatial expansion of urban areas is equivalent to 1% annually, approximately 15 km². This poses a risk to agricultural land as well as infrastructure and its financing.
- At Governorate-level, increasing urban footprint led to encroachment on rural and agricultural lands, threatening green land availability.
- The majority of affordable housing initiatives, are located in the rural areas within the governorate away from urban areas, leading to more urban sprawl and decreasing the connectivity to city services.
- At the city-level, municipal service provision follow the haphazard urban growth, which reveals that planning is reactive rather than proactive.
- In just under four decades, the urban footprint of Mafrq tripled in size, with an average annual rate of increase of 10.6%, growing from 14.7km² in 2005 to 42.7km² in 2023.
- The most significant urban growth occurred between 2010-2015, following the Syrian influx, where the urban area of Mafrq City grew 65.9%, from 15.8 km² to 26.3 km². This growth results in sprawl, loss of rural land, an overloaded infrastructure system, increase in GHG emissions, exacerbates flash floods and decreases the overall quality of life.
- Highly dense areas, including refugee camps and refugee-concentrated areas within the city, pose challenges on the quality of life, service provision, and planning.

- GMM does not have a Municipal Masterplan to guide growth or development.

Housing

- At the national level, there is a significant mismatch between housing supply and demand, whereby the current housing needs are not being met. Accordingly, the lack of affordable adequate housing has become a critical issue due to the inflated prices of land, construction, and energy.
- While the HUDC is the sole government agency responsible for housing, its current mandate focuses on overseeing and monitoring the building’s construction.
- The influx of Syrian refugees created a high demand for rental housing, further raising land prices.
- Refugees are the most tenure insecure in Jordan.
- Za’atari Refugee camp in Mafraq Governorate suffer from poor housing conditions

Accessibility and Connectivity

- Mafraq’s transportation sector faces many challenges. Forcing commuters to heavily rely on private modes of transportation, it is projected that the number of private vehicles within the governorate will amount to 127 vehicles per 1,000 inhabitants.
- The increase in traffic and heavy vehicles movement is causing damage to roads and underlying infrastructure in GMM.
- Limited public transportation infrastructure is a challenge for the mobility and economic opportunities of Mafraq Governorate residents, specifically women.
- Inadequate mobility options within Mafraq City have resulted in major environmental, economic, and social challenges.
- Public transportation in Mafraq is slow, costly, and time-consuming, exacerbating vulnerabilities of refugees and people with low-income.
- The public transport network only serves the centre and north east of GMM, other districts remain under-serviced.
- The lack of an official transport plan or policies regulating privately-owned buses makes them unreliable and repels users.

Facilities and Infrastructure

- Mafraq Governorate is considered urbanised with 70% of its population living in urban areas. This can be

attributed to the rural-to-urban migration and influx of refugees - when coupled with weak urban planning, it results in pressure on the limited municipal capacities and resources for service provision.

- The flow of refugees from camps to urban areas has impacted the capacities of infrastructure and public facilities, such as education, health, and public spaces.
- Mafraq governorate does not have a stormwater drainage system in place, flash floods have become more prominent as a result of climate change.
- Mafraq experienced a 40% increase in demand on water since the onset of the Syrian crisis. Straining the already limited resources in the governorate. The groundwater levels have plummeted to almost 500 meters in certain areas of the governorate.
- Only 17% of the governorates population is served by the sewerage network. The remaining 83% rely on septic tanks or other means of waste disposal.
- 27% of the population of the governorate of Mafraq are not connected to the electricity grid.
- There is a minimal availability of public parks in many Jordanian municipalities and cities, including GMM.
- At the city level, the energy and electricity sector in GMM suffers from the burden of its energy bill for road lightening.

GOVERNANCE, LAND MANAGEMENT & PLANNING CHALLENGES

Governance & Administration



- The boundaries of administrative institutions, like MoI, and planning institutions, like MoLA and GMM, are unaligned. This governance framework leads to overlapping mandates and roles and a lack of horizontal and vertical coordination among entities. Consequently, this impacts decision-making processes and planning activities, resulting in a lack of uniformity.
- Municipalities play a limited role in service provision due to the limited political power, financial resources, and technical capacities to support local economic development.
- The lack of integrated planning policy at regional and city levels hinders the project prioritization process.

- The lack of a unified system and poor monitoring mechanisms leads to vast disparities between planning documents and on-ground implementation.
- The lack of comprehensive regional planning approaches, combined with slow approval processes and complex national administrative structures, impacts the regional and local development strategies.
- The lack of coordination at the governorate and city levels may make development plans redundant.
- The lack of up-to-date and reliable data available and uniform across different systems and entities has impacted the capabilities for evidence-based decision-making in the city.
- Despite having a Strategic and Local Development Plan, GMM does not have the necessary master and zoning plans to identify key areas and investment opportunities
- GMM utilises a paper-based system to record ongoing municipal work and lacks the necessary electronic database, to allow for data to be easily accessed, updated and shared.

Land Management & Planning Boundaries

- The only Jordanian planning law is the 1966 "Law of Planning of Cities, Villages, and Buildings, No.79". It is based on the British Palestine Mandate town planning, which originated from the 1932 British Town Planning Act. This law remains temporary, out of date with minimal attempts to update it.
- Jordan's legal land tenure system reflects a movement towards land privatization, resulting in unsustainable land use practices and severe land degradation, particularly of agricultural lands. As private lands are in prime areas, they have become more expensive amidst increased demand.
- Social restrictions on land inheritance and ownership persist, especially impacting poor women.
- Syrian refugee camps are jointly managed by UNHCR and the Syrian Refugee Affairs Directorate (SRAD), as such, they remain excluded from the municipal land use and development plans.

ENVIRONMENTAL AND NATURAL HAZARD CHALLENGES



- Jordan's population is vulnerable to natural hazards due to the limited proactive approach to disaster prevention and mitigation, insufficient institutional capacities at the national and local levels, limited trained human resources, lack of awareness among officials and communities about disaster preparedness, and unsatisfactory implementation of existing policies.
- Jordan is the second most water scarce country. It is heavily reliant on external water resources, exacerbating tensions with neighbouring countries. The influx of refugees increased Jordan's struggle to meet domestic water needs.
- Urban sprawl is encroaching on agricultural lands. 41% of Jordan's land area is characterized as degraded due to overgrazing, unsustainable agriculture and water management, and over-exploitation of vegetative cover.
- The hydrological and meteorological events, caused by climate change, account for 97% of national disasters. The vulnerability of Mafraq Governorate to various natural hazards is evident through natural hazard events - primarily flash floods.
- The influx of refugees, weak infrastructure, and limited natural resources have significantly burdened efforts to enhance resilience and reduce disaster risk at governorate and city levels.
- According to flood hazard mapping, the district of Mafraq are among the most vulnerable to flash floods due to rapid unplanned urbanization, and impervious surfaces over the majority of the whole watershed.
- Wadi Mafraq which is around 11km long, and runs through the center of the city significantly exacerbates the issue of flooding in the city.
- Non-compliance to the Jordanian regulations for water resource protection means that heavy development exists within the 10m Wadi buffer zone.
- There is a lack of alternative resource use, this can be linked to the lack of incentivized national policies promoting renewable energy and energy efficiency, significantly impacting the reduction of GHG emissions.
- Energy and water deficiency results in the governorate's residents being dependent on underground water resources. There is no major shifting towards

renewable energy resources or rainwater harvesting practices.

- Mafraq has been experiencing a decline in precipitation levels. Which have led to a decline in water table and groundwater level, resulting in water scarcity.
- Drought has caused a decline in agricultural and livestock production in the surrounding areas, affecting the livelihoods of Jordanian farmers and Syrian displaced populations working on farms.

SOCIO-ECONOMIC CHALLENGES



Economy and Jobs

- 14.4% of Jordan's population lives in poverty. The poverty profile of Syrian refugees has imposed stresses on the pre-existing Jordanian poor.
- Despite high education rates, youth in Jordan have low job prospects and an unemployment rate of 19.3% due to the poor conditions of the labour market and high-skilled job saturation. There is a mismatch of skills in the labour market.
- Mafraq governorate has the highest percentage of poverty estimated at 19.2% which exceeds the national rate, increasing the dependency rates.
- Mafraq governorate includes 6 poverty pockets, putting pressure on urgent plans to meet their service and employment needs.
- As of the fourth quarter of 2023, Mafraq Governorate recorded the highest unemployment rate in the Kingdom at 24.8%.
- The median yearly household income for Syrian refugees living in Mafraq is significantly lower than other governorates, at 1,000 Jordanian Dinars.
- The most significant barriers to investment in Mafraq Governorate include; weakness in the role of chambers of commerce and industry in providing support and promotion, bias of the investment encouragement law in favour of foreign investors and specific sectors, centralization of decision-making and governmental procedures, as well as, provision of public infrastructure services.
- Municipalities have limited capacities to support local economic development.
- Municipalities are facing constraints to finance

service delivery, due to their low economic dynamics. In addition to the low-income revenues, municipal staff salaries account for 68% of their budgets.

- While more than half of the Municipal budgets depend on governmental transfers, municipalities are not notified in advance about the amount, which hinders budget preparations.
- Municipal revenue was overestimated by approximately 30% between 2018 to 2023, while total expenses have been overestimated by approximately 32%. This points to a notable weakness in the municipality's revenue/ expenses budgeting capacity.
- GMM experienced an average annual deficit of 3.33 million JD from 2019 to 2021 and 1.32 million JD in 2022.
- GMM's inability to significantly reduce debt and annual deficits is impacting the financial stability and the city's structure of expenditures.

Conflict between Host and Refugee Communities

- As housing demands increase, tensions between refugees and host communities simultaneously increase as they compete for affordable housing.
- In mid-sized cities, Jordanians compete with Syrian refugees for rental apartments.
- The unequal access to public facilities, infrastructure, and job opportunities causes conflict and tensions between refugees and host communities.
- Many refugees rely on humanitarian assistance, which is a short-term strategy to reduce vulnerabilities. However, the lack of legal access to the job market intensifies their vulnerabilities and results in wider informal markets, thus increasing tensions between host and refugee communities in their efforts to receive the limited work opportunities. There has been complaints on Syrian employment rights and the consequent feelings of disempowerment.
- The current Local Development Plans at municipal levels do not address emerging refugee issues, which hinders the integration of marginalized communities in development scenarios.

Opportunities

STRATEGIC OPPORTUNITIES



- Jordan has a high proportion of youth, especially in Mafraq Governorate where more than half of the population are under 25 years old. Therefore, the growing labor force and human resources, less demand on health facilities, and reduced dependency rates could become opportunities if a long-term plan that efficiently utilizes resources was adopted to encourage multidimensional developments as well as capacity and skill-building programmes to meet the future needs of this growing population.
- The introduction of the Local Administration Law No. 22 of the year 2021 that unifies the governance system at the local level under one umbrella, thereby contributing to enhancing accountability and transparency.
- The availability of various documents addressing the needs of refugees and host communities at the national level, such as the National Resilience Plan, Regional Refugee and Resilience Plan, Jordan Response Plan, Jordan Compact, and Global Compact for Migration, provide the opportunity for meeting these immediate necessities of Syrian refugees living in camps and urban areas, as well as host communities impacted by the crisis. Additionally, there is a major opportunity to build on these plans and efforts to achieve sustainable solutions for Jordan's population and refugee integration.
- There is a significant opportunity to improve the governance of migration, address the challenges associated with today's migration, and strengthen the contribution of migrants and migration to sustainable development.
- Transforming the Syrian refugee crisis into a development opportunity that attracts new investments and boosts the local economy.
- Currently, donations to Jordan aim at building the capacities of the governmental institutions to provide long term solutions for the refugee crisis, which is an opportunity to build existing capacities.
- UN-Habitat, in collaboration with MoLA, published the first Jordanian National Urban Policy that sets a guiding framework for urban development in the country.
- Jordan is transitioning from a highly centralized to a progressively decentralized system with more powers at the Governorate and Municipal level. This can enhance local community participation in decision making.
- The Adaptation Fund project being implemented by UN-Habitat in Mafraq will work to establish an urban

observatory for centralized data collection and a set up of a proper database, enhancing data collection and sharing as well as attract investment.

SPATIAL OPPORTUNITIES



Land Availability

- Proper documentation of land ownership encourages land investment. Additionally, Jordan facilitates investment through renting governmental lands for investors.
- There are steps towards implementing white land taxes in Jordan, which will stimulate vacant land usage, thus encouraging intensification.
- The COVID-19 pandemic and restrictions raised awareness on the importance of spatial planning, availability of green open space, and of utilizing the existing vacant lands for green open spaces and agriculture activities to enhance food security.
- In terms of size, Mafraq Governorate is the second largest in the Hashemite Kingdom of Jordan.
- Mafraq features a significant tract of cultivable land, spanning a minimum of 1,700 square donums, equivalent to around 20% of the country's total cultivable land. This land resource possesses the inherent capacity to catalyse agricultural investment and emerge as a pivotal reservoir of production inputs for the food industry sector.
- Mafraq Governorate serves as Jordan's second food basket.
- Mafraq has the highest cumulative livestock presence at 24% of the total in-country livestock population.
- Mafraq governorate, with its expansive land area, presents promising opportunities for investment in projects requiring substantial space, such as agriculture, renewable energy, industry, tourism, and logistical facilities.
- Mafraq Governorate is home to the Burqu Nature Reserve that offers hiking trails, accommodations, and meeting spaces.

Accessibility and Connectivity

- Mafraq Governorate has a strategic location in the Kingdom, at the intersection of international roads that connect Jordan with Syria, Iraq, and Saudi Arabia. The governorate's strategic location and road infrastructure have boosted transportation activities and economic opportunities, facilitating trade and maintenance of vehicle.

- Jordan’s Transport Sector Green Growth Action Plan 2021-2025 will look to develop Transport and Mobility Action Plans and Capital Investment Plans for Mafraq.

ENVIRONMENTAL OPPORTUNITIES



- The potential for climate mitigation is significant, as Jordan is mainly a desert and solar energy can be utilized to produce electricity, reduce fuel consumption. Accordingly, mitigate climate change impacts and GHG.
- Jordan’s first National Policy on Climate Change was updated in 2022, and aims to strengthen Jordan’s capacity to respond to the impacts of climate change and solidify Jordan’s global stewardship in emission reduction; build the adaptive capacity of communities and institutions; and ensure that the interests of vulnerable groups are adequately addressed in mitigation and adaptation policies and strategies.
- The Adaptation Fund Project’s key components in Mafraq revolve around increasing resilience to climate change-related challenges for both displaced individuals and host communities. This includes strengthening municipal governments’ capacity to manage scarcity risks amid climate change and urban growth. Tailored Climate Resilient Urban Master Plans will be developed to address specific needs. Moreover, the project will implement innovative harvesting and irrigation options, like rooftop rain harvesting and grey systems, in public buildings to conserve and mitigate scarcity challenges.
- There are several renewable energy projects that have been or are currently being undertaken in Mafraq Governorate. These projects assist in building energy efficiency, reducing reliance on traditional energy resources, and increasing the use of renewable energy.

SOCIO-ECONOMIC OPPORTUNITIES



Economy and Jobs

- Jordan is open to potential investors and facilitates doing business. Whereby the end of 2013, Arab investors have invested 40% in the industry sector, 38% in the commercial sector, 20% in the agricultural sector and 2.5% in the real estate sector.
- Jordan has high education attainment rates which offers the potential of a growing skilled workforce that will support the local economic development of the country when accompanied by other enabling factors.
- The government of Jordan gave its residents the

opportunity to establish home-based business, including Syrian refugees inside and outside camps, which assists in improving the resident’s socio-economic conditions.

- There is an opportunity of using the government’s vacant lands for urban agriculture/permaculture to reduce unemployment, mitigate climate change impact, enhance the residents’ socio-economic conditions, and achieve food security.
- Mafraq’s cultivable land and rich heritage creates four key investment sectors; agriculture, tourism, renewable energy and recycling.
- Various initiatives and programs have been implemented to address unemployment and poverty and improve the living conditions in Mafraq Governorate.
- Mafraq has multiple development and industrial areas that can grow and offer further job opportunities and enhance the socio-economic value of the city centre and the residents’ socio-economic conditions.
- Syrian Refugees can be seen as contributors to the socio-economic value of Mafraq governorate, since the arrival of Syrians in Mafraq, they have contributed to the commercial and economic activity of the governorate, especially within the food sector, working in restaurants and sweet shops. It is reported that there are 50 new commercial shops registered in the governorate under a variety of sectors.
- There is constant trade between shopkeepers in Za’atari Refugee camp and Jordanian suppliers/businesses in the Greater Mafraq Municipality, with both parties benefiting from this economic relationship.

Facilities and Infrastructure

- Provision and investment in a sustainable water and sewerage systems, public transport, green/open public spaces, and pedestrian infrastructure will significantly contribute to the residents’ livelihoods, local economy as well as to attract investors and businesses. Provision of infrastructure projects has accounted for only 1% of the total portfolio, highlighting an opportunity for future improvement.
- Jordan Country has quite an advanced healthcare system.
- There is an initiative which aims to expand the existing sewerage network to encompass multiple neighbourhoods within the GMM city.
- Mafraq WWTP rehabilitation under the AF project is a key step in advancing treated water, fostering healthier ecosystems, and promoting sustainable resource management.
- The AF project incorporates storm management, including rain harvesting system installations in Mafraq city schools. Another goal is to promote environmental sustainability and foster community awareness of responsible practices.

Recommendations

This section highlights the recommendations at national, regional, and city levels, along with considerations for vulnerable groups, demonstrating alignment with the SDGs and the UMF. These recommendations are organized into six main themes of the JNUP, emphasizing the capability of

spatial profiles to identify necessary actions at various levels to support the implementation of the JNUP. Each main theme is further divided into sub-themes, which cover the findings and recommendations based on the spatial profile analysis



Governance and Management



GOVERNANCE AND MANAGEMENT	Sub Themes	National	Regional
	Coordination	<ul style="list-style-type: none"> - Establish a centralized coordination mechanism to streamline efforts and minimize duplicity among urban planning institutions and actors, ensuring more effective collaboration and utilization of resources. - Enhance communication and cooperation among relevant stakeholders to overcome challenges associated with weak coordination and overlapping responsibilities in urban planning, fostering greater efficiency and alignment with national development objectives. 	<ul style="list-style-type: none"> - Enhance alignment and coordination between planning ministries and institutions to streamline operations and avoid overlapping roles.
	Governance Framework	<ul style="list-style-type: none"> - Develop national and regional sectoral strategies and plans that align with the Jordan National Urban Policy. These strategies and plans should offer clear guidance for prioritizing projects and initiatives, fostering a more strategic and cohesive approach to urban development. 	<ul style="list-style-type: none"> - Introduce comprehensive regional planning approaches and simplify administrative processes to support effective regional development strategies and to support standardized procedures for decision-making that are consistent and efficient.
	Investment and Partnerships	<ul style="list-style-type: none"> - Encourage public-private partnerships to stimulate economic growth, relieve fiscal strain, and mitigate the impacts of the refugee crisis. 	<ul style="list-style-type: none"> - Strengthen support mechanisms for investment across key sectors with growth potential including agriculture, tourism, renewable energy, and recycling to diversify investment opportunities.
	Planning	<ul style="list-style-type: none"> - Establish clear and simple roles, responsibilities, areas of jurisdiction, and authority for all levels of government to collaboratively manage urban growth, develop infrastructure, and prepare and implement neighborhood plans. - Strengthen planning by raising awareness of local leaders - Ensure Equitable Distribution of Available Financial Resources. 	<ul style="list-style-type: none"> - Ensure Equitable Distribution of Available Financial Resources - Clarify the role of regional actors according to the law in specific the governorate council - Strengthen planning by raising awareness of local leaders



City	Vulnerable Groups (Refugee, Women, PWDs)	SDGs	UMF
<ul style="list-style-type: none"> - Empower municipalities by increasing their political power, financial resources, and technical capacities to enhance local economic development and service provision. - Strengthen coordination mechanisms at the governorate and city levels to ensure synergy and avoid redundancy in development plans. 	<ul style="list-style-type: none"> - Invest in infrastructure development to accommodate the growing population and improve access to essential services such as healthcare, education, and housing. 	 	 71 & 76
<ul style="list-style-type: none"> - Introduce comprehensive local planning approaches and ensure that communities are more involved in order for planning to be sustainable, understood, appreciated, and supported. This can also include developing neighborhood plans. 	<ul style="list-style-type: none"> - Develop community understanding and awareness of planning, by piloting neighbourhood plans (these plans are the main instrument for implementing the JNUP) 	 	 71 & 76
<ul style="list-style-type: none"> - Recognize GMM's financial limitations in funding essential service projects within its budgetary constraints and emphasize the critical role of international financial assistance, including grants and technical support, to facilitate the implementation of necessary projects. 		  	 71 & 76
<ul style="list-style-type: none"> - Pilot neighborhood plans - Create Community Innovation and Design Hubs to support implementation different themes. - Strengthen planning by raising awareness of local leaders and building the capacity of municipal staff 		  	 71 & 76



Environment and Water



ENVIRONMENT AND WATER	Sub Themes	National	Regional
	<p>Ecosystem Protection</p> <p>Risk Reduction and Management</p> <p>Water</p> <p>Food</p> <p>Energy</p>	<p>- Implement climate resilience strategies to mitigate the adverse impacts of climate change on Jordan, including increasing temperatures, erratic rainfall, flash floods, droughts, earthquakes and heightened risks of extreme weather events.</p> <p>- Enhance the implementation of rainwater harvesting techniques.</p> <p>- Address water scarcity by implementing sustainable water management practices, reducing reliance on external resources, and fostering regional cooperation to ensure water security amidst increasing demands exacerbated by refugee influx.</p> <p>- Develop sustainable resource management strategies to alleviate pressure on Jordan's limited resources due to population growth and urbanization, driven by the influx of Syrian refugees.</p> <p>- Reduce energy dependency by investing in power grid infrastructure</p>	<p>- Recognize and protect significant natural assets, ecological areas, and heritage resources, to accordingly manage natural resources sustainably</p> <p>- Develop sustainable water management strategies.</p> <p>- Implement flood management plans tailored to regional needs.</p> <p>- Establish a robust early warning system for natural disasters.</p> <p>- Enhance the implementation of rainwater harvesting techniques</p> <p>- Address water scarcity by implementing sustainable water management practices, reducing reliance on external resources, and fostering regional cooperation to ensure water security amidst increasing demands exacerbated by refugee influx.</p> <p>- Manage natural resources sustainably.</p> <p>- Enhance Food Security.</p> <p>- Improve air quality and mitigate climate change.</p>



City	Vulnerable Groups (Refugee, Women, PWDs)	SDGs	UMF
<ul style="list-style-type: none"> - Map protected sensitive areas, features, and sites (national reserves, parks, open space systems, forests, archaeological sites, touristic sites, ecology, etc.) to establish developable areas as a base for determining where growth can happen. - Protect and recover significant natural assets, such as water courses. 			 49 & 60
<ul style="list-style-type: none"> - Prioritize the installation of greywater systems as a key initiative to actively enhance the city's sustainability. - Implement a storm water drainage system - Increase rainwater harvesting actions/ initiatives at city level. 	<ul style="list-style-type: none"> - Invest in sustainable water management for Jordanians and Syrian refugees in drought-affected areas. 		 60 & 74
<ul style="list-style-type: none"> - Promote water harvesting techniques at the household level 			 4 & 60
<ul style="list-style-type: none"> - Green local streets and corridors. - Protect the agricultural land base and encourage its use for food production. - Encourage community to utilize rooftops and urban gardens in agriculture activities. - Adopt and implement the climate change master plan (currently under development). 			 51 & 60
<ul style="list-style-type: none"> - Invest in and support green energy technologies. 			 46








Mobility and Connectivity



MOBILITY AND CONNECTIVITY	Sub Themes	National	Regional
	<p>Transportation</p>	<ul style="list-style-type: none"> - Invest in expanding and improving public transportation infrastructure to provide accessible, inclusive, and efficient alternatives to individual motorized vehicles. - Disincentive the use of private vehicles 	<ul style="list-style-type: none"> - Invest in expanding and improving public transportation infrastructure to provide accessible, inclusive, and efficient alternatives to individual motorized vehicles.
<p>Walkability</p>	<ul style="list-style-type: none"> - Reclaim the role of streets as places for human interaction and activity. 	<ul style="list-style-type: none"> - Establish standards for the quality of streetscape elements. - Improve Walkability and infrastructure for other forms of Active Transportation. 	



City	Vulnerable Groups (Refugee, Women, PWDs)	SDGs	UMF
<ul style="list-style-type: none"> - Develop a comprehensive transportation plan to effectively organize the transportation sector, including the rehabilitation and construction of roads and sidewalks to improve connectivity and accessibility. - Develop affordable transport solutions to facilitate mobility between residential areas, workplaces, and medical facilities, thereby improving accessibility for all residents 	<ul style="list-style-type: none"> - Implement measures to empower women by addressing the disparities they face within the current transportation system, thereby enhancing their access to education and economic opportunities. - Provide and raise awareness around reliable alternate transportation options, including public transit and active transportation. 	 	 <p>10 & 29</p>
<ul style="list-style-type: none"> - Plan and design for walkability. Make walking a safe, comfortable, and interesting experience. - Reduce travel demand and distances - Redesign and reinvest in streets as attractive and active public spaces. - Re-classify roads and streets typologies based on levels of human activity and their role within the specific community context, rather than levels of service, and define the necessary corresponding street elements. 		 	



Livability- Quality of Life



LIVABILITY-QUALITY OF LIFE	Sub Themes	National	Regional
	Infrastructure Networks (water, sewerage, electricity)	<ul style="list-style-type: none"> - Develop strategies to mitigate the strain on limited water resources in the country caused by the increased demand. - Upgrade and expand the sewerage network to enhance its efficiency and coverage for a better sanitation infrastructure. - Enhance the implementation of alternative resources for electrical energy to enhance sustainability. - Encourage evidence based approach in identifying needed projects. 	<ul style="list-style-type: none"> - Develop strategies to mitigate the strain on limited water resources in the governorate caused by the increased demand. - Explore alternative water sources and technologies to supplement reliance on ground wells. - Allocate immediate resources and attention to address the deteriorating water and sewerage networks in Mafraq, focusing on efficient management and distribution for reliable service delivery. - Encourage evidence based approach in identifying needed projects.
	Solid Waste Management	<ul style="list-style-type: none"> - Implement waste infrastructure improvement projects to enhance waste management capabilities. 	<ul style="list-style-type: none"> - Implement waste infrastructure improvement projects to enhance waste management capabilities.
	Road Infrastructure	<ul style="list-style-type: none"> - Establish standards for the quality of streetscape elements 	<ul style="list-style-type: none"> - Improve and rehabilitate connecting roads ' infrastructure
	Access to public facilities (schools, healthcare, parks, cultural facilities, commercial)	<ul style="list-style-type: none"> - Develop national and regional sectoral strategies and plans to improve access to public facilities for all and enhance the quality of service provided. - Create places and services for healthy and enjoyable living for everyone - Encourage evidence based approach in identifying needed projects. 	<ul style="list-style-type: none"> - Develop regional sectoral strategies and plans to improve access to public facilities for all and enhance the quality of service provided. - Encourage evidence based approach in identifying needed projects.



City	Vulnerable Groups (Refugee, Women, PWDs)	SDGs	UMF
<ul style="list-style-type: none"> - Prioritize repairing dilapidated pipes, ensuring proper installation, and implementing maintenance to reduce the substantial water loss from leakage. - Rehabilitate the wastewater facility to its full operational capacity to ensure efficient and sustainable management of wastewater. - Explore and implement alternative resources for electrical energy to enhance sustainability. 	<ul style="list-style-type: none"> - Implement measures to improve the regularity of municipal water delivery to alleviate psychological stress on households, particularly Syrian families with limited incomes, who bear the burden of purchasing water. 		<p>2, 3, & 9</p>
<ul style="list-style-type: none"> - Implement waste infrastructure improvement projects to enhance waste management capabilities. 			<p>41 & 43</p>
<ul style="list-style-type: none"> - Improve and rehabilitate roads infrastructure . 			
<ul style="list-style-type: none"> - Encourage evidence based approach in identifying needed projects. - Build new public facilities and schools in the southern region of GMM to provide essential services closer to residents. - Encourage commercial development outside the city center, specifically in the two regulated areas at the southern region of GMM. - Improve the quality of existing and new public spaces (streets, squares, and parks) through each plan, every infrastructure project, as well as all development and place making initiatives. 	<ul style="list-style-type: none"> - Consider the needs of all community groups and people of all abilities in the planning and design of public and recreational spaces. - Ensure equal access to municipal services and community activities for both locals and refugees. - Address the financial strain on refugees outside camps caused by inflated health service costs through subsidies or support. - Combat declining education enrollment among Syrian refugees and PWDs by improving transportation, enhancing school quality, aligning education with professional opportunities, and streamlining enrollment processes. 		<p>9,11,44, & 45</p>










Economy and Prosperity



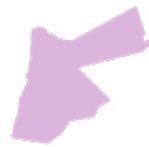
ECONOMY AND PROSPERITY	Sub Themes	National	Regional
	Employment Opportunities	<ul style="list-style-type: none"> - Implement comprehensive strategies to mitigate the economic impact of the Syrian crisis, which includes stabilizing regional trade and managing refugee influxes. - Address Jordan's economic challenges, including high unemployment rates and poverty, through targeted policy interventions and initiatives aimed at fostering sustainable economic growth and job creation and aligned with the Economic Growth Modernization Vision. - Improve job opportunities for Jordan's educated youth by aligning education with market needs and enhancing vocational training. 	<ul style="list-style-type: none"> - Implement targeted economic development initiatives to address substantial disparities among regions, particularly focusing on boosting commercial ventures in Mafraq to enhance its economic prominence and stimulate growth. - Improve access, accommodation, and services.
	Tourism	<ul style="list-style-type: none"> - Advance external and internal tourism as major contributor to economic local community development. 	<ul style="list-style-type: none"> - Protect tourism assets and natural areas to improve experiences and encourage longer stays.
	Green Growth	<ul style="list-style-type: none"> - Create new, green, and smart jobs in growth areas. - Protect fertile land and improve irrigation systems. 	<ul style="list-style-type: none"> - Protect fertile land and improve irrigation systems. - Develop urban agriculture in empty lots and on rooftops.



City	Vulnerable Groups (Refugee, Women, PWDs)	SDGs	UMF
<ul style="list-style-type: none"> - Foster traditional markets - Implement income-generating projects - Support livelihood diversification through training and incentives, to enhance resilience - Develop a local economic development plan to utilize the comparative advantages at the city level - Promote local entrepreneurship 	<ul style="list-style-type: none"> - Support alternative income-generating activities for women, youth, PWDs and others through diversifying economic opportunities beyond farming, providing training in alternative skills, and promoting entrepreneurship initiatives. 		 27
<ul style="list-style-type: none"> - Map, inventory, and valorize tangible and intangible living heritage assets in the city. 			 55
<ul style="list-style-type: none"> - Conduct capacity building for locals on agriculture income-generating projects - Enhance public spaces as marketing platforms 		 	 22 & 51






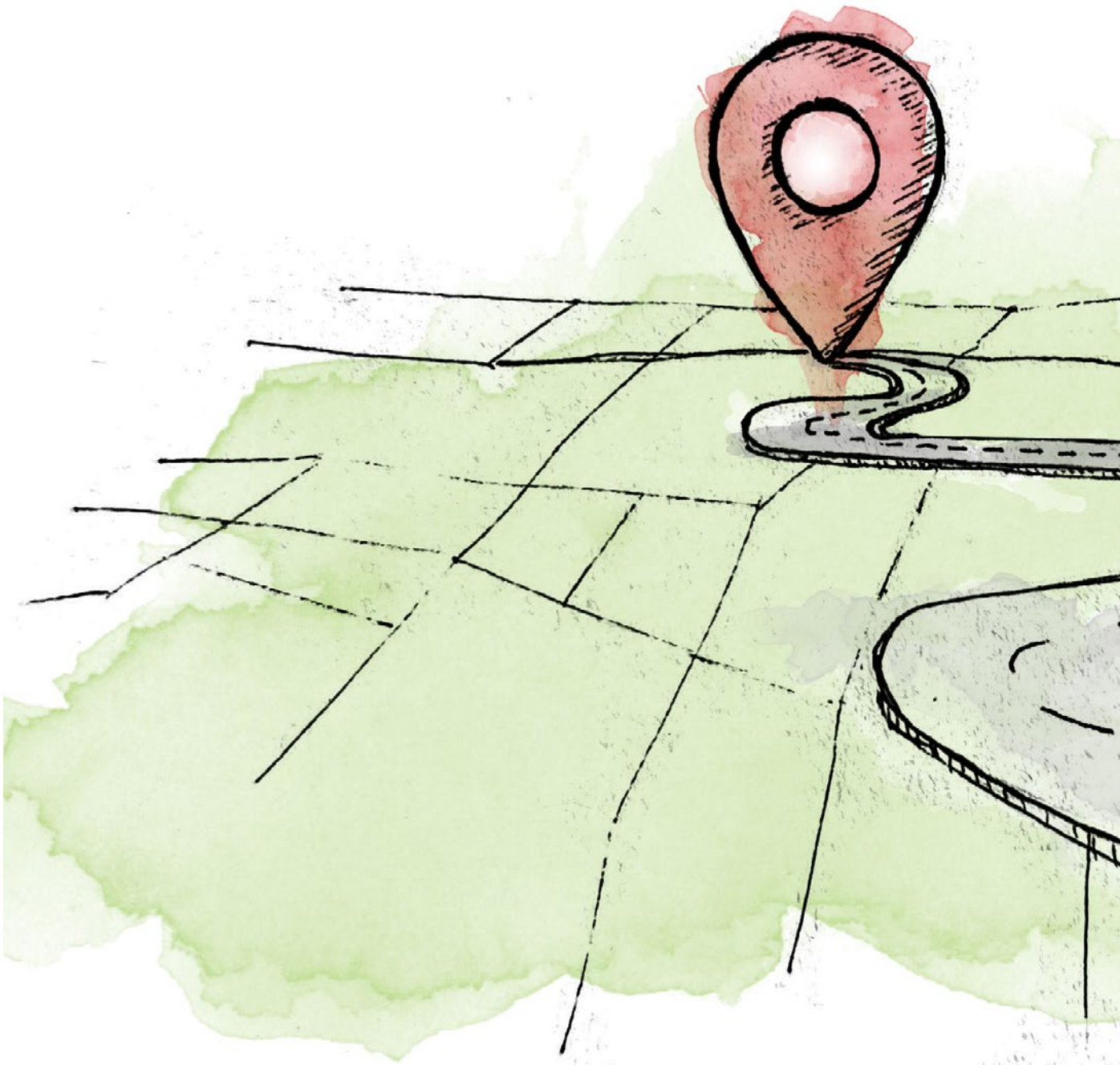
Form of Development

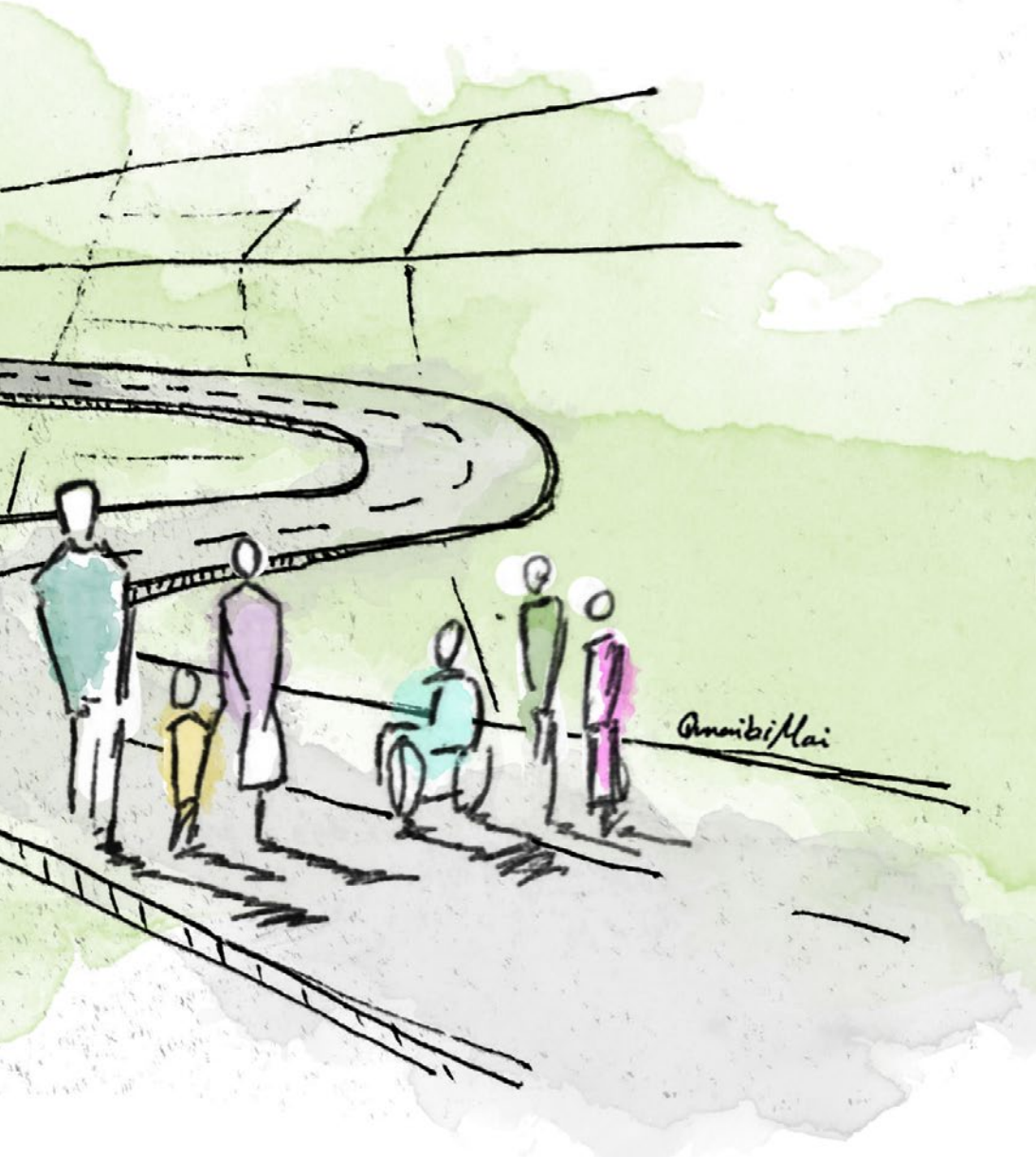


FORM OF DEVELOPMENT	Sub Themes	National	Regional
	<p>Housing</p>	<ul style="list-style-type: none"> - Address the dual challenge of inadequate, affordable housing and escalating demand due to population growth and refugee influxes by upgrading the existing housing strategy and implementing robust housing initiatives. - Address the critical issue of the limited supply of affordable housing, exacerbated by inflation in land, construction, and energy prices, in response to the increasing demand. - Implement measures to alleviate the pressure on affordable housing by exploring strategies to mitigate the impact of inflation on land, construction, and energy prices. - Develop housing as basic infrastructure - Develop guidelines and standards for the form of housing. 	
<p>Neighbourhood Planning</p>	<ul style="list-style-type: none"> - Promote and encourage government entities to plan at the neighborhood level in alignment with the JNUP and the Economic Modernization Vision. 		



City	Vulnerable Groups (Refugee, Women, PWDs)	SDGs	UMF
<ul style="list-style-type: none"> - Assess housing sector at city level and identify needed actions to enhance public safety - Address the lack of access to affordable housing to mitigate tensions between host and refugee communities. - Mobilize resources to rehabilitate existing houses - Encourage partnerships to improve housing conditions at city level 	<ul style="list-style-type: none"> - Address the lack of access to affordable housing to mitigate tensions between host and refugee communities. 		
<ul style="list-style-type: none"> - Build local capacity in planning, designing, and developing neighbourhoods - Create smart, compact, self-reliant, and diverse neighbourhoods around people, public transit, and green infrastructure to ensure walkable and people-friendly neighbourhoods as the basic increment for city growth 	<ul style="list-style-type: none"> - Community planning is an opportunity to engage the community in understanding the moment, considering human, natural and built resources, and determining how to move forward. 		 6





06

WAY FORWARD

LEVERAGING THE SPATIAL PROFILE TO GUIDE INCLUSIVE AND SUSTAINABLE CITY DEVELOPMENT

Beyond offering a comprehensive understanding of the city, the spatial profile becomes a dynamic tool for identifying the challenges and the opportunities within the urban areas and neighbourhoods characterized by high numbers of migrant residents, serving as a strategic guide for urban development. By showcasing the intricate interplay of physical, socio-economic, and policy aspects within urban landscapes, the spatial profile becomes an invaluable decision-making tool for long-term infrastructure planning. This process actively contributes to the city's growth through the identification of the areas in need of attention and strategic interventions. By incorporating qualitative insights from participatory workshops, the profiling process actively engages with local communities. This interaction ensures that the identified neighbourhoods of intervention align with the priorities of the residents and contribute meaningfully to the city's overall development vision.

Moreover, the spatial profile serves as a vital tool / source or facilitating reporting on policies, strategies, and plans at the global, national, and local levels. It enables countries to fulfil their commitments towards achieving Sustainable Development Goals (SDGs), feeding into the VLR processes, and enhancing the quality of life in urban areas. The spatial profile underscores the importance of effective horizontal and vertical coordination within and among governmental entities at various levels, ensuring alignment of strategic efforts with the envisioned goals. By documenting and analysing the current situation and conducting sectoral needs assessments, these profiles facilitate well-informed decision-making processes.

In Jordan, on a national scale, Spatial Profiles for Mafraq, Amman, and Irbid assist the various governmental entities in tracking progress towards key national initiatives, including Jordan's Economic Modernization Vision, the National Urban Policy, Green Growth National Action Plan, National Climate Change Policy, Voluntary National Review, and other relevant strategies. At the local level, these profiles aid municipalities in refining their local plans and improving future ones through evidence-based analysis.

Furthermore, UN-Habitat's spatial profiles play a pivotal role within broader efforts aimed at localizing the SDGs. The spatial profiling and planning process particularly synergise with the Voluntary Local Reviews (VLRs). Amman offers a leading example in this regard, as the Amman Spatial Profile (2022) has crucially contributed to the subsequent [Amman VLR](#) (2022), providing a wide array of data and spatial indicators as well as contributing to thematic spotlights on migrants and vulnerable groups in the city. The synergy between VLRs and spatial profiles combines city-wide SDG performance assessment from VLRs with multiscale and multisectoral analysis, insights and areas identification of spatial profiles. This collaboration fosters a new generation of action oriented VLRs supported by UN-Habitat, creating

common platforms that bridge global and local levels for effective urban development. Together, spatial profiles and VLRs, importantly contribute to strengthening local data ecosystems and can offer a comprehensive approach for achieving sustainable development that is driven by local needs, potentials, and actions.

Following the city spatial profile, the next two phases of UPIMC shift the focus to the smallest scale within the pilot neighbourhoods identified as the most vulnerable through the comprehensive profiling process and participatory workshops.

Vision, Area Planning, and Action Plan

The pilot neighbourhood's visioning and planning process aims to redefine the urban landscape by crafting a strategic vision rooted in the insights from spatial profiling through a collaborative effort bringing together key stakeholders. The vision serves as a collective roadmap that aligns the aspirations of government, host and refugee communities, and other stakeholders. It signifies the commitment to inclusive development, where the priorities of the targeted community are integrated and aligned into the broader urban narrative. The subsequent planning process is an effort to translate these aspirations into action. The creation of different scenarios and the formulation of an action plan become pivotal in transforming the city by providing concrete steps and identifying areas for strategic interventions.

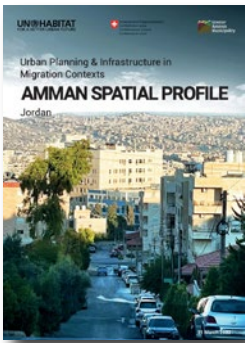
Projects Prioritization and Links to Finance

The prioritization of projects in this phase aims to address immediate needs and long-term aspirations, formulating the precise actions to positively transform the neighbourhood. As these projects undergo assessment, involving community input and stakeholder collaboration, they become more than just infrastructure initiatives as they embody the formulated vision. The project briefs bridge the aspirations to reality, facilitating partnerships, including with the private sector and potential donors, to secure the necessary funding for implementation. This transformative phase is about turning urban visions into tangible realities, as the prioritized projects become the building blocks for a neighbourhood and a city that reflects the needs, potential and aspirations of its residents.

Knowledge Exchange

UPIMC emphasizes knowledge exchange connecting cities nationally and internationally to enhance municipal capacity and engagement in broader national and international platforms and processes. In this spirit, a [Normative Guidebook](#) is under development, exploring the proposed methodology to simplify the replication process for practitioners and stakeholders. The Guidebook provides step-by-step guidance, insights derived from the experiences and best practices of the pilot cities and neighbourhoods.

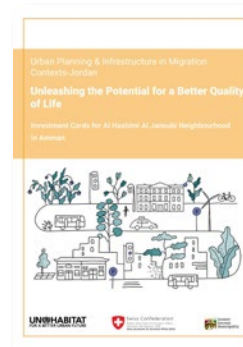
JORDAN COUNTRY - Amman and Irbid Cities



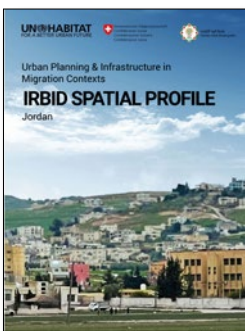
[The Amman Spatial Profile](#)



[Al Hashmi Al Janoubi Neighbourhood Vision, Scenario Building, and Action Plan](#)



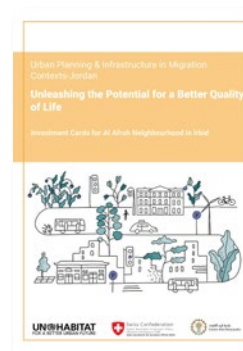
Al Hashmi Al Janoubi Neighborhood Investment Cards



[The Irbid Spatial Profile](#)

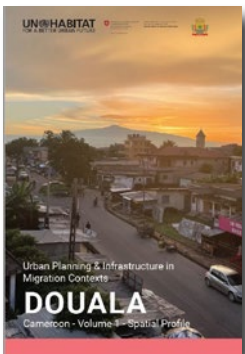


[Al Afrah Neighbourhood Vision, Scenario Building, and Action Plan](#)

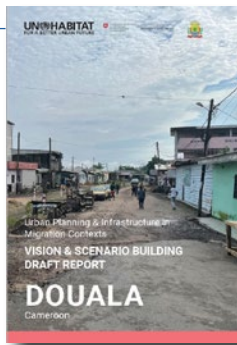


Al Afrah Neighborhood Investment Cards

CAMEROON COUNTRY - Douala 4 City



[Douala Spatial Profile](#)



[Douala Vision and action plan report](#)



Douala Investment Cards

EGYPT COUNTRY - New Damietta City



[Damietta Spatial Profile](#)



[Damietta Vision and action plan report](#)



New Damietta Investment Cards

UN-HABITAT FOR SUSTAINABLE, INCLUSIVE, AND RESILIENT URBAN FUTURES

UN-Habitat is dedicated to sustainable global urban development, aligning with the United Nations' 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs), an guiding the implementation of the commitments outlined in the New Urban Agenda (NUA). Collaborating with governments and stakeholders, UN-Habitat translates these global objectives into actionable interventions at the local level. Recognizing the pivotal role of local action in driving global development, UN-Habitat supports the process of localization, which empowers cities and local communities to innovate and mobilize resources, tailoring development efforts to the specific contexts.

At the forefront of localizing the SDGs and implementing the NUA, UN-Habitat has endorsed the Urban Monitoring Framework (UMF) as a global strategy for monitoring SDG and NUA indicators. This framework guides the creation of Voluntary Local Reviews (VLRs), essential mechanisms for municipalities to monitor and report on SDG achievements. To spatially implement these global objectives, UN-Habitat employs a suite of tools and practices. The Planning, Finance & Economy Section, core to the agency's expertise, offers a spectrum of activities – from data collection and analysis to strategic planning and project development, including guiding and unlocking financing opportunities – to support national and local governments in driving sustainable and inclusive development. UN-Habitat's Urban Lab, an integrated urban planning facility, guides the planning process across local, regional, and national levels through an evidence-based collaborative approach.

Leveraging this expertise, UN-Habitat explores multiscale and evidence-based integrated urban planning as an alternative approach to address migration and protracted displacement scenarios, providing durable solutions to bridge the gap between humanitarian and development practices in contexts of protracted crisis and displacement. As human mobility has been increasingly acknowledged as a crucial dimension of urbanization dynamics and sustainable development, UN-Habitat is committed to keep supporting cities and local governments driving integrated urban solutions that harness the potential of migration for sustainable development. UN-Habitat will continue advancing global knowledge and practices on sustainable urban

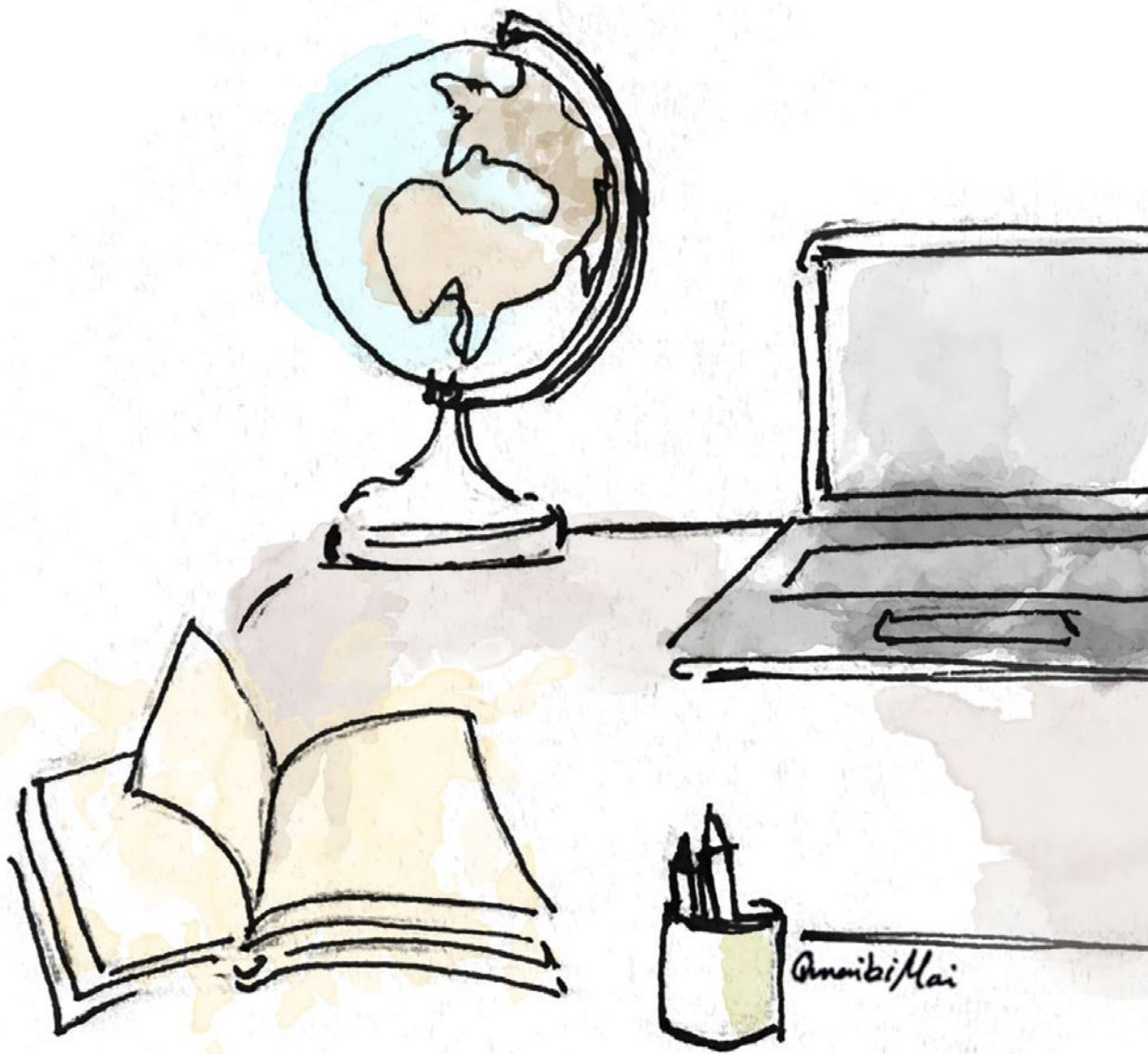
approaches integrating local experiences into broader discussions and efforts towards the implementation of the Global Compacts for Migration and the Global Compact on Refugees.

For more information:

- [UN-Habitat's Catalogue of Services](#)
- [Planning for Humanitarian Development Practice](#)







Amibi/Mai



07

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